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# Undergraduate Academic Catalog

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2006-2008

# Northwest Missouri State University 2006-2008 Undergraduate Catalog

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 at preregistration or general registration 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. There may also be changes in fee schedules, which are current at the time of publication of this catalog.

**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](http://www.nwmissouri.edu)**

## **Statement of Non-Discrimination**

Applicants for admission and employment, students, and employees of Northwest Missouri State University are hereby notified that this institution does not discriminate on the basis of race, color, creed, religion, national origin, sex, age, or handicap in admission or access to, or treatment or employment in, its programs and activities. Any person having inquiries concerning Northwest Missouri State University's compliance with the regulations implementing Equal Employment Opportunity Commission (EEOC) and Americans with Disabilities Act (ADA) guidelines is directed to contact the President's Office, Northwest Missouri State University, 800 University Drive, Maryville, MO 64468-6001, (660) 562-1110. Any person may also contact the Assistant Secretary for Civil Rights, U.S. Department of Education, regarding the institution's compliance with the regulations implementing EEOC and ADA guidelines.

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# 2006-2007 Academic Calendar

## Fall Trimester 2006

August 23-24	Wednesday-Thursday	Department Planning and Development
August 25	Friday	University/College meetings
August 26	Saturday	General Registration
		Preregistration Verification
August 28	Monday	Classes begin
September 4	Monday	Labor Day, no classes
October 13	Friday	First Block ends
October 16	Monday	Second Block begins
October 20	Friday	Walkout Day, no classes
October 21	Saturday	Homecoming
November 21	Tuesday	Thanksgiving Vacation begins, 5 p.m.
November 27	Monday	Classes Resume, 8 a.m.
December 11-15	Monday-Friday	Final Exams
December 15	Friday	Commencement
December 18	Monday	Grades due at 10 a.m.

## Spring Trimester 2007

January 3-4	Wednesday-Thursday	Department Planning and Development
January 5	Friday	University/College meetings
January 6	Saturday	General Registration
		Preregistration Verification
January 8	Monday	Classes begin
January 15	Monday	Martin Luther King Holiday, no classes
February 23	Friday	First Block ends
February 26	Monday	Second Block begins
March 19-23	Monday-Friday	Spring Break
April 23-27	Monday-Friday	Final Exams
April 28	Saturday	Commencement
April 30	Monday	Grades due at 10 a.m.

## Summer Trimester 2007

May 8	Tuesday	First Session begins and Registration
May 28	Monday	Memorial Day, no classes
June 5	Tuesday	First Session ends
June 6	Wednesday	Second Session begins and Registration
July 3	Tuesday	Second Session ends
July 4	Wednesday	Independence Day, no classes
July 9	Monday	Third Session begins and Registration
August 2	Thursday	Third Session ends
August 2	Thursday	Commencement
August 6	Monday	Fourth Session begins and Registration
August 16	Thursday	Fourth Session ends
August 17	Friday	Grades due at 12:00 noon

# 2007-2008 Academic Calendar

## Fall Trimester 2007

August 22-23	Wednesday-Thursday	Department Planning and Development
August 24	Friday	University/College meetings
August 25	Saturday	General Registration
		Preregistration Verification
August 27	Monday	Classes begin
September 3	Monday	Labor Day, no classes
October 12	Friday	First Block ends
October 15	Monday	Second Block begins
October 26	Friday	Walkout Day, no classes
October 27	Saturday	Homecoming
November 20	Tuesday	Thanksgiving Vacation begins, 5 p.m.
November 26	Monday	Classes Resume, 8 a.m.
December 10-14	Monday-Friday	Final Exams
December 14	Friday	Commencement
December 17	Monday	Grades due at 10 a.m.

## Spring Trimester 2008

January 9-10	Wednesday-Thursday	Department Planning and Development
January 11	Friday	University/College meetings
January 12	Saturday	General Registration
		Preregistration Verification
January 14	Monday	Classes begin
January 21	Monday	Martin Luther King Holiday, no classes
February 29	Friday	First Block ends
March 3	Monday	Second Block begins
March 24-28	Monday-Friday	Spring Break
April 28-May 2	Monday-Friday	Final Exams
May 3	Saturday	Commencement
May 5	Monday	Grades due at 10 a.m.

## Summer Trimester 2008

May 12	Monday	First Session begins and Registration
May 26	Monday	Memorial Day, no classes
June 6	Friday	First Session ends
June 9	Monday	Second Session begins and Registration
July 3	Thursday	Second Session ends
July 4	Friday	Independence Day Holiday, no classes
July 7	Monday	Third Session begins and Registration
July 31	Thursday	Commencement
August 1	Friday	Third Session ends
August 4	Monday	Fourth Session begins and Registration
August 18	Monday	Fourth Session ends
August 19	Tuesday	Grades due at 12:00 noon

*Dear Student,*

Let me begin by welcoming you to Northwest Missouri State University and your undergraduate experience. While I am sure you are experiencing a variety of thoughts and emotions, it is important to remember that as a new Bearcat you have not only entered a quality institution of higher education, but also a family. The Northwest family consists of students, faculty, staff, administrators and members of the community who are here to assist and guide you through the next four years. This sense of family has attributed to the development of Northwest as a model institution, nationally recognized for its high graduation rates.

Your college experience will be a time of great change, personal growth and development, and of course great opportunities. While the Northwest family is here to assist you, we greatly encourage you to make a deep personal commitment to your education to fully gain the benefits that Northwest has to offer.

It is important to explore three important areas in order to obtain optimal success. Over the next few years we hope to help you in these areas of:

- Self-Exploration — Who am I really?
- Career Goals — What do I want to ultimately achieve from my education?
- Personal Growth — What skills, abilities, knowledge, and attitudes will I need to develop to take me from where I am now to where I want to be?

To assist in developing these three areas the Northwest community has set up several programs to aid in your success which include:

### **Freshman Seminar**

Freshman Seminar is the first step on the path to success. This program is a course where you make your initial dive into the Northwest family. You are introduced to information regarding academics, goal setting, career opportunities, general University knowledge and opportunities for involvement on campus. You will learn about Northwest's "Covenant for Learning" and make a plan for your own student success, as well as develop talents like time management, study skills and critical thinking.

### **General Education Requirements**

The University has established several course requirements that are known as General Education Requirements. These courses are in a variety of fields and programs to aid you in exploring who you are. These classes will also introduce you to a wide variety of knowledge and skills that will be essential in any career or goal you pursue. The Northwest family encourages you to take diverse courses from Composition to American Government or Mathematics to Theatre Appreciation in order to experience a sample from each educational field.

If you approach your General Education Requirements seriously, they can become a path to self-exploration and help you answer the question, "Who am I?". A minimum of 42 credit hours of General Education courses is required to complete a degree at Northwest Missouri State

University, and hopefully, the answers you find will help you discover the major that is right for you and your career goals.

### **Academic Major Requirements**

Along with your General Education Requirements, Academic Major Requirements will include courses in the discipline of your choice. These classes will aid you in establishing the skills, abilities, knowledge and attitudes needed to make your career goal a reality. To do this, Northwest focuses on three major factors in regard to your major. First, we introduce you to the vocabulary of a discipline. It is important to understand the language and terminology that experts in that field use. Second, we establish the methods of the discipline in order to illustrate processes of working in your desired field. Finally, we focus on establishing skills on how to learn within a given discipline. We realize that there is a great amount of information to be learned within a given field, and as a matter of practicality, you cannot learn all you need to know within your time here. However, if you know how to think and learn in that field, you will continue to advance your skills and learn more each and every day. Course content, as well as personal connections with faculty and student leaders, will provide you with a foundation for successful development — not just in your career, but in life as well. Northwest offers over 100 undergraduate degree programs from which you can choose.

### **Co-Curricular Activities**

Not all learning takes place inside a classroom. It is important to integrate the academic curriculum with the co-curricular activities. These activities range from a lecture by former South African President and Nobel Laureate F. W. de Klerk to an off-Broadway production of the musical “Rent.” Other areas of co-curriculum involvement could include participating in residence hall programs, serving on Student Senate, joining a Greek organization or participating in University athletics. Northwest is currently home to more than 150 student organizations that include department specific and general interest groups. Take a minute to explore these organizations by utilizing the *Connections Manual* available from Student Activities. Involvement in these activities truly shapes your college years and allows you to develop essential life skills.

To explore the areas mentioned earlier, it is important to utilize the services provided by the Northwest family, but also to approach them in your own personal and individual way. Develop your own integrated approach and incorporate a seamless learning philosophy into your education. Make use of all Northwest has to offer and customize it to make your experience successful.

In order to meet the expectations that have been set forth, we have developed a collection of important information to share about Northwest’s history, traditions, values and goals. We hope that the information found on the following pages of this academic catalog will be helpful in the fulfillment of your academic and ultimately life goals. We wish you the best of luck as you pursue your undergraduate career and welcome you to the Northwest family.

Sincerely,



Dr. Dean L. Hubbard  
President



# Educational Key Quality Indicators

At Northwest, we have defined ten areas—called Key Quality Indicators—in which you, the student, should be competent by the time you graduate. The curriculum we’ve outlined is designed to help you become competent in these areas. If you achieve in all of these areas, we believe you will have a great likelihood to be successful in the complex world of the twenty-first century.

These indicators include:

## ■ Communications Competencies

To succeed in our ever-changing Information Age, you must be able to communicate effectively. You must be able to write and speak clearly and persuasively. Therefore, we not only require you to take courses in Composition and in Communications, you can expect to do a great deal of writing and a great many public presentations in most of your classes.

## ■ Critical/Creative Thinking Competencies

You will have to learn how to analyze situations, read complex written material intelligently and critically, and imaginatively construct new possibilities for the world in which you live. Whether it is dealing with case studies in a business class, analyzing historical situations, working on realistic physics problems, or writing a poem, Northwest classes will push you toward being competent in critical and creative thinking.

## ■ Problem Solving Competencies

No university in these rapidly-changing times can give you all of the information and all of the answers to the problems you will face later in life. Therefore, you will have to learn not just to regurgitate information, but how to analyze problems and explore possible solutions. Courses at Northwest are designed to offer you the chance to exercise these skills and improve your abilities.

## ■ Computer Competencies

We live in an increasingly electronic world. If you are not familiar with and competent in using word processing, spreadsheets, databases, and Web environments, you simply have fewer chances for success in today’s world. A Northwest education helps you develop competencies in these areas because most of your Northwest classes will require you to use computer knowledge and abilities.

## ■ Self-Directed Learning Competencies

An educated, successful person is one who seizes the world, takes responsibility, and shapes his or her own learning situations, rather than passively sitting back and letting others shape their learning.

### ■ Competence in a Discipline

Breadth of learning, though, isn't enough. It is also important to focus in on one subject and become an expert in it in a deep way. We want you to leave Northwest competent in some specific area, ready to take part in the professional life of that field, whether it is Broadcasting, Chemistry, Recreational Therapy, Sculpture, or any of the other fields Northwest offers.

### ■ Personal/Social Development

At Northwest, we believe that education involves the whole person—not just your intellect—so your own personal and social development are crucial, too. A Northwest graduate should be mature and thoughtful, capable of understanding self and use that knowledge to interact with others in a successful, ethical way.

### ■ Teamwork/Team Leading Competencies

There are very few jobs in America that do not involve teamwork or working in groups. And in fact, the higher you rise in most fields, the more important teamwork, and your leadership abilities, will become. At Northwest you will find many opportunities, both in the classroom and outside of the classroom, to practice these skills and develop your competence at working in and leading teams.

### ■ Multicultural Competencies

Quality multicultural experiences are essential for functioning effectively in a global society. At Northwest, multiculturalism includes everyone. Mutual respect, an ethic of openness, and harmonious coexistence are considered important multicultural values.

By sharing and learning together at Northwest, the University community builds upon our current opportunities to celebrate diversity, to see it as an opportunity to broaden cultural experience, to enhance understanding of cultural perspectives, and value each person's heritage.

### ■ Cultural Enrichment

Part of being educated is having an appreciation for the deepest and most significant achievements of human culture. Whether it is listening to a brass quartet or a gospel group, visiting the campus art gallery for a printmaking show, attending a play or seeing a Samoan dance troupe, experiencing cultural events and enriching your world are crucial to becoming a well-rounded Northwest graduate.

# University Core Values

Every organization, every institution, has core values that drive everything that they do. At Northwest, we want to make sure you know what our values are and what is important to us as you join our community. Here are the values that we see as crucial to your success and to the University's success as a whole:

■ **We focus on our students and stakeholders.**

Our classes are centered on you, the student, not on the professor and what he or she knows. Thus, assignments, projects, and such are built into courses to focus on your learning and achievement. Furthermore, Northwest believes that the best learning takes place when you are engaged as a whole person—body, mind, and spirit—and when you can use all of your different ways of learning. We recognize that people learn in different ways, and we continually strive to build an education that will encourage all of those different ways of learning.

■ **We care about each other.**

If the people working at the University, from the staff member who cleans the classrooms to the faculty member who teaches Shakespeare, do not feel that the University cares for them, helps them develop their talents, and gives them power over their own lives, then all of the things we've said in these core values will fall apart. Thus, Northwest strives to develop everyone who works here so that we can all achieve excellence.

■ **We are a learning organization, continually improving our University and ourselves.**

At Northwest we develop people's natural abilities as well as an awareness of hidden talents. We want to develop all students, faculty, and staff by providing opportunities for professional growth.

If you as students are going to learn well, we need to have all aspects of your life, from the classroom to the residence hall room to the financial assistance office to the library, structured to help you learn. Thus, we strive to make sure that all aspects of your life at Northwest point toward the same goal—academic excellence.

■ **We collaborate and work together to accomplish our goals.**

The courses you take should not be isolated from each other, and should not isolate you from the rest of your life at the University. Instead, we have created a seamless experience of learning at Northwest. Classes are related to residence hall activities, which relate to speakers and concerts on campus, and so forth. These interactions are designed to help you integrate these experiences throughout your undergraduate experience.

In order to facilitate your success, we strive to continuously improve the quality of your learning experiences. But, to learn, you must take an active part in learning—by preparing for class actively, by working on assignments and projects, by questioning and responding in class, by synthesizing the materials from several classes. This means your instructors are going to expect you to be active participants in your learning if you are going to be successful. The responsibility is largely on you!

Part of that responsibility means you must devote a serious amount of time to your studies. Most faculty expect at least two hours of study time outside of class for every hour spent in class. A full course load of 15 credits would require an additional 30 hours outside of class spent in studying. A full-time education is a full-time job! We realize many students must work to pay for their education, but we want you to keep your priority on your education.

■ **We master the details of what we do.**

Another way of saying this might be “If you don’t expect the best, you will never get the best.” We believe that if you want quality, you have to begin by expecting high quality—and that means in every aspect of University life. We have high expectations of our faculty, staff, and students as well as for our food service and residence halls. If you want to gain a quality education, you must begin with high expectations for your own work. Aiming for a “C” is not the path to success; aiming for excellence is.

■ **We are open and ethical.**

This core value provides a foundation for mutual trust that makes every other core value attainable.

We must treat one another ethically; it is the foundation for all genuinely fruitful human contact. We will strive to treat you with respect, fairness, and honesty and promote this behavior among others; we expect nothing less from you.

■ **We are leaders in our field.**

We improve when we have feedback that tells us what we did well and what we still need to improve; it’s as simple as that. At Northwest, we are in the business of giving and receiving a great deal of feedback. And not just feedback about results, but feedback about how we went about getting those results. What process did you use to write that paper or put together that project? How can you improve on that process to create a better project?

This assessment includes the entire University community. Expect to be asked to give your feedback about programs, teaching, administrative decisions, and more during your years at Northwest. If we all are going to improve, we all need to give honest feedback.

As evidence that we are leaders in our field, we have been recognized by the Excellence In Missouri Foundation as back-to-back winners of the Missouri Quality Award.

# Student Success

## *A Covenant for Learning*

The Covenant for Learning is an educational pact between Northwest and its students designed to promote the highest levels of student learning by encouraging better planning and personal responsibility. It describes the historical commitment to teaching excellence of Northwest's faculty while defining a mutual commitment to student success shared by students, faculty, administrators, and all levels of staff. It both reflects and seeks to sustain the unique Northwest culture, one in which we recognize that student learning and personal development are promoted by close, caring relationships among all members of the University community.

### ■ The Classroom

At Northwest, we value a classroom experience in which students deepen comprehension of subject matter and strengthen their ability to apply what they are learning. The Northwest faculty continually strive to enhance learning in the classroom, an environment in which faculty and students respect one another, act with integrity, and embrace diversity. While faculty are committed to providing effective and focused instruction, students must develop and sustain a sincere and enthusiastic desire to learn.

### ■ Studying and Class Preparation

Northwest faculty design courses so much of student learning takes place outside the classroom. Classes focus on important concepts and help students to apply, assess, and extend what they have learned. The more time and energy students invest in studying and preparation for classes, the more they gain. Students need to take an active role in assessing their needs for academic assistance and to seek help when necessary.

### ■ Support for Learning

A clearly defined and communicated curriculum, as well as knowledgeable and interested advisors, help students assume responsibility for their own learning and academic program. We believe in a partnership between faculty, administrators, staff, and students that leads to student success. At Northwest, the full-time undergraduate experience requires a full-time commitment.

### ■ Student Development Experience

Northwest provides a well-rounded, quality living and learning experience. Student development, which includes residential experiences, campus activities, community service, student organizations, student employment, and leadership opportunities, helps prepare students for full and effective participation in a diverse and changing society. Further, these activities provide students with increased self-understanding, meaningful social interaction, creative self-expression, and personal development.

■ **Living/Learning Environment**

As members of the Northwest community, we believe in respecting the resources and physical environment of the campus in order to preserve its history, traditions, and landmarks. Furthermore, we all contribute to the preservation of a clean, safe, orderly, and attractive campus. Interactive communications, recreational opportunities, and technological resources are vital components of the campus community.

■ **My Personal Responsibility**

As a student at Northwest, I take responsibility for the following commitments regarding my undergraduate experience:

(Student's personal statement)

# History of Northwest Missouri State University

One way to get to know an institution's culture and values is to learn about its history. Northwest Missouri State University is no exception.

You may think of Northwest as a major state university, but it began in 1905 as Missouri's Fifth District Normal School to provide teachers for the schools of a 19-county region in northwest Missouri. We still fulfill that function, and are proud of the teachers which Northwest sends out to educate the next generation. But the University has now grown into a comprehensive state university with over one hundred undergraduate programs, 32 master's degrees, three educational specialist degrees, and a cooperative doctoral program in educational leadership.

Northwest's history includes three major 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 on August 14, 1972, when the Board of Regents, recognizing the evolution of the school into a comprehensive institution, changed the name to the one it has today: Northwest Missouri State University. Today, the University provides a quality living-learning environment which equips the student for achievement and responsible participation in a rapidly changing society.

In the fall of 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. In the fall of 1997, Northwest upgraded the Electronic Campus by providing a highly networked personal computer in every residence hall room and a notebook computer for every faculty member, making the computer a truly integral part of the learning process for students and faculty.

Over the past decade, Northwest also has earned a national reputation as a leading practitioner of the continuous quality improvement through its Culture of Quality. This effort strengthens all aspects of undergraduate education and enriches campus living as a whole. In November 1997, Northwest was honored for its extraordinary achievements in applying quality principles to its operations when Governor Mel Carnahan presented the Northwest Family with the Missouri Quality Award in Education. In December 2001, Northwest became the first educational institution in Missouri to win two Missouri Quality Awards and in 2005 trumped this achievement by winning its third. This achievement is one unmatched by any other educational institution. Northwest continues to maintain its Culture of quality and persistently improves upon its accomplishments.

## Vision

Northwest Missouri State University will be an internationally recognized innovator in continuously improving higher education.

## 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.



# 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.

To protect the health and safety of the Northwest community, all newly-entering students born during or after 1957 must show proof of immunization against measles and rubella. Students who do not show proof or who do not have a valid exemption within 60 calendar days after courses begin, will have their registration administratively cancelled. International students, in addition, must carry adequate medical insurance and meet a Tuberculosis Screening Requirement.

Effective Fall 2004, all students who will reside in residence halls must have completed the Meningococcal Education and Immunization Requirement by either receiving the immunization or signing a waiver indicating they have received the information and have made a decision not to have the immunization. Parents also need to sign the waiver forms. **Students may not move in to the residence halls until they have completed the requirement.**

## Freshman Admissions

Northwest is moderately selective; admission is based on a combination of ACT/SAT score, class rank and GPA. Students graduating from high school in the Spring of 1996 or after are required to have followed a college-preparatory curriculum that includes at least 16 units of credit as described on page 19. In addition, students must meet the requirements in Category I or Category II below.

### Category I

1. 21 ACT composite or higher (or the SAT equivalent: SAT-970-1000) **and**
2. Minimum 2.00 cumulative GPA or above (on 4.00 scale)

### Category II

1. Have a combined percentile index (see page 18) 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 will 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 at [www.nwmissouri.edu/admissions/howtoapply.htm](http://www.nwmissouri.edu/admissions/howtoapply.htm) or contact by phone at (800) 633-1175.

**Combined Percentile Index**

Figure the student's 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 student's 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.

**Test Score Percentile Chart**

Composite ACT	Minimum SAT I	Percentile
35	1570-1600	99
34	1510-1560	99
33	1450-1500	99
32	1390-1440	99
31	1350-1380	99
30	1310-1340	98
29	1270-1300	96
28	1230-1260	94
27	1200-1220	91
26	1160-1190	87
25	1120-1150	83
24	1090-1110	78
23	1050-1080	72
22	1010-1040	66
21	970-1000	58
20	930-960	51
19	890-920	42
18	840-880	34
17	800-830	26
16	750-790	19
15	700-740	13
14	630-690	8

13	570-620	4
12	510-560	2
11	450-500	1
10	410-440	1
9	200-400	1

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

### 16-Unit Core Curriculum

- 4 units of English
- 3 units of Mathematics  
(high school level algebra and beyond, including Algebra II)
- 2 units of Science  
(not including general science; at least one unit must be a laboratory science)
- 3 units of Social Science  
(must include American history and at least one semester of government)
- 4 units of Electives  
(at least one unit of fine arts courses in the visual arts, music, dance or theatre and the remaining three selected from foreign language or combinations of courses from the above categories of English, Mathematics, Science or Social Sciences, Fine Arts, or Computer Science)

*Note: 1 unit = 1 year*

### Requirements

- Northwest requires of freshman students an **official** ACT score report sent by either their high school or by ACT to the Office of Admissions. The ACT is used for placement and advisement purposes; the Scholastic Aptitude Test (SAT) may also be used for admission decisions. Residual test scores are not acceptable, unless taken at Northwest.

### To Apply

- Carefully and promptly complete the Application for Admission and submit it with the application fee to the Northwest Office of Admissions.  
**Online Only Application Deadline:** Students applying for online only courses, must be accepted 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 Enrollment Program need to request an official college transcript be sent to the Office of Admissions.
- 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).

## Homeschooled Students

Home-schooled students are encouraged to apply for Admission to Northwest Missouri State University. 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, home-schooled students must meet one of the following criteria:

1. A 24 or higher on the ACT (or SAT equivalent) **OR**
2. A 21 ACT **and** a GED score of 45 or better (or 450 depending on date of test).

## Credit for External Examinations

Northwest utilizes the College Board Advanced Placement Tests (AP), the College Level Examination Program (CLEP) examinations, and the International Baccalaureate (IB) 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 at the Northwest Counseling Center 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 or IB examinations. Northwest will allow credit for scores on selected exams as follows:

Advanced Placement Course (NW Equivalent)	Score Required	Hours Granted
American Govt./Politics* (34-924)	4	3
American History (33-905)	4	3
European History (33-298)	4	3
Macroeconomics (52-150)	3	3
Microeconomics (52-151)	3	3
English Language and Comp (10-111)	3	3
English Literature and Comp (10-908)	4	3
French Language (14-131)	3	3
French Literature (14-920)	3	3
German Language (14-920)	3	3
Spanish Language (14-141)	3	3
Spanish Literature (14-920)	3	3
Music Theory (19-173)	4	3
Music Listening and Literature (19-201)	4	3
Studio Art-Drawing+	-	-
Studio Art-General+	-	-
Art History (13-102)	3	3
Calculus AB (17-120)	4	4
Calculus BC (17-120)	3	4
Calculus BC (17-120, 17-121)	4	8
Computer Science A	3	3
Computer Science AB	5	6
Biology (04-102/103)	3	4
Chemistry (24-114/115)	3	4
Chemistry (24-114/115, 24-116/117)	4	9

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

\*Students are required to take PolS 34-201 Missouri Politics in order to fulfill the state's requirement for graduation. See page 52 for Graduation Policies and Requirements.

+The Department of Art faculty will review and award credit on an individual basis.

### CLEP Subject Examinations

Exam (NW 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 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
College Algebra/Trigonometry (17-118, 17-119)	50	5
General Biology (04-102/103)	49	4
General Chemistry (24-114/115)	50	4
Business:		
Introductory Accounting (51-201, 51-202)	50	6
Foreign Language:		
Communication and Culture I (Either Spanish (14-141) or French (14-131))	44	3
Communication and Culture II (Either Spanish (14-142) or French (14-132))	55	3

### CLEP General Examinations

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

Exam (NW Course Equivalent)	Criterion Score	Hours Granted
English Composition (10-901, 10-902)	50	6
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 and philosophy. Specific course equivalencies and hours of credit vary. Contact the Office of Admissions for additional information.

Course	Score Required	Hours Granted
Art	Review	Review
Biology	4	4
Economics	5	3
English	4	3
Foreign Language	Review	Review
Geography	5	3
History	4	3
Humanities	4	3
Math	4	4
Math	5	5
Math	6	6
Music	4	3
Philosophy	4	3

## Dual Enrollment Courses (Transferred to Northwest)

Northwest will accept for credit, courses taken while enrolled in high school under the Dual Enrollment Program as long as the courses are not vocational in nature and follow the State Guidelines for Dual Enrollment 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 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.

## 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 1-800-633-1175, 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.

## 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 [www.nwmissouri.edu/admissions/howtoapply.htm](http://www.nwmissouri.edu/admissions/howtoapply.htm) or contact by phone 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.

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

900 ACT English Credit	909 Humanities/Philosophy
901 English 111	910 Fine Arts
902 English 112	911 Science
903 Speech Communication	912 Math
904 American Government (with Missouri)	918 Science Lab
924 American Government (without Missouri)	920 Lower Division Elective
905 American History	990 Upper Division Elective
906 Social Science	988 B.T. credit only
907 Psychology	999 Elective, before summer 1990
908 Literature	

Aside from possible waiver of General Education 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.

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 will have satisfied the Northwest general education requirements with the exception of courses required by their specific academic program and the government requirement stated on page 52.

Students who hold an associate of science degree from a regionally-accredited institution will have satisfied the Northwest requirements in general education if the student has at least 42 semester hours of general education with the following distribution of courses:

- Communication skills in the English language—three courses, at least two of which must be written; one oral communication course is recommended;
- Humanities—three courses, from at least two disciplines;
- Physical and life sciences—one course in each area including its associated laboratory component;
- Mathematics—one course in college algebra, an alternative course that includes a significant component of college algebra, or a course which has college algebra as a prerequisite; and
- Social and behavioral sciences—three courses from at least two disciplines; needs to include history.
- American National Government—one course.

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 of arts degree. Please consult the major requirements outlined in this academic catalog.

Transfer students from outside the state of Missouri should be aware of the state law requirement for graduation as detailed on page 52 of this catalog; due to this requirement, such students will be required to take American Government or Missouri Politics even though their general education requirements have been waived.

### **To Transfer:**

- Carefully and promptly complete the Application for Admission and submit it with your application fee to the Northwest Office of Admissions.
- Students must also submit 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 College of Education and Human Services should see page 291 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, no I-20 Form can be issued.

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, then he or she is required to meet the Test of English as a Foreign Language (TOEFL) minimum score requirement. Undergraduates should have a minimum score of 500 on the paper-based TOEFL, a 173 on the computer-based total or a 61 on the Internet-based TOEFL (available September 2005). Graduates should have a minimum score of 550 on the paper-based TOEFL, a 213 on the computer-based TOEFL, or a 79 on the Internet-based TOEFL (available September 2005).

### 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.
3. Application fee of \$50.00 in U.S. currency. This is a non-refundable fee.
4. Score report from the Test of English as a Foreign Language (TOEFL). Undergraduates should have a minimum score of 500 on the paper-based TOEFL, a 173 on the computer-based total or a 61 on the Internet-based TOEFL (available September 2005). Graduates should have a minimum score of 550 on the paper-based TOEFL, a 213 on the computer-based TOEFL, or a 79 on the Internet-based TOEFL (available September 2005).
5. Copy of passport or birth certificate.
6. Students who wish to apply for scholarships must have official SAT scores sent to Northwest.

### 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 15
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.

After all the required documents are received in the Office of Admissions, international students will be notified of their admission status.

### **International Transfer Students**

In addition to items one through six on the previous page, 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 (see page 22). Students who have less than 24 transfer hours completed will be considered for admission on the basis of freshman admission requirements.

### **International Graduate Students**

Whether the undergraduate degree is from a foreign university or from an American university, graduate students should also submit items one through four listed on the previous page. The prerequisites for admission to graduate school are:

- A baccalaureate-level degree from either a regionally accredited American university or foreign institution.
- A cumulative undergraduate grade point average of at least 2.50 on a 4.00 scale, depending on the program requirement. Students who have a cumulative GPA between 2.20 and 2.49 may be admitted on a conditional basis if other admission requirements are met.
- A score report from the Graduate Record Examination (GRE) General Test, if pursuing a Master of Arts, a Master of Science, Master of Science in Education, or an Education Specialist degree; or a score report from the Graduate Management Admissions Test (GMAT) if pursuing a Master of Business Administration degree.

The maximum graduate credit accepted for transfer is nine semester hours in no more than four courses. In order for graduate transfer credits to be evaluated, the prospective graduate student must also file an Approved Program Form with the Northwest Office of Graduate Studies.

For more information on graduate policies, procedures, and requirements, see the current Northwest *Graduate Catalog*, available online at [www.nwmissouri.edu/academics/catalog.htm](http://www.nwmissouri.edu/academics/catalog.htm).

## 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 on page 17. The ACT exam is recommended for advisement purposes. Students under academic and/or disciplinary suspension or probation 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.

### 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 score, a personal essay, and ACT/SAT scores. Test scores are used for admission but primarily for course placement. If test scores are not available, students will be instructed to take the exam on the next national test date or sit for the residual ACT exam on Northwest's campus in the fall.

### GED

Based on the 2002 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 2250, no sub-score lower than 410, and an average of all sub-scores of at least 450 and above. ACT/SAT is required.

### 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 Enrollment of 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, on-line course, or a course taught at the local high school while still attending high school. Students must submit a Dual Enrollment 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 3.00 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. If dual enrollment 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.

## Admission to Graduate Study

Northwest awards four master's degrees. These are the Master of Arts in English or History; the Master of Business Administration (also MBAs with emphasis in Accounting, Agricultural Economics, Management Information Systems, Health Management, and Quality); the Master of Science in Agriculture, Biology, Geographic Information Science, Applied Computer Science, and Recreation; and a Master of Science in Education Teaching: Agriculture, Early Childhood Education, English, Elementary Education, History, Instructional Technology, Mathematics, Music, Middle School, and Science Education; and Master of Science in Education Secondary Teaching: individually designed program concentration. Also offered are Master of Science in Education in Elementary and Secondary Educational Leadership, Guidance and Counseling, Health and Physical Education, Reading, and Special Education. Certificate programs are available in Geographic Information Science and Instructional Technology. Non-degree graduate study is offered in some areas.

Northwest also offers one post-master's degree: the Specialist in Education, with programs for Superintendents, Elementary Principals and Secondary Principals.

### Requirements

Requirements are specifically stated in the *Graduate Catalog*.

### To Apply

Interested students should carefully complete the Application for Graduate Admission and forward official transcripts from each undergraduate institution attended, except Northwest, to the Northwest Graduate Office. Admission to graduate study is not the same as admission to a graduate program. Applications should be in the Graduate Office at least one month before the

fall, spring, or summer sessions. International applicants should allow approximately six months from the time of application until the completion of the admission process.

### **Graduate Class Load**

The maximum load is 16 hours in a trimester with no more than seven hours in a four-week summer session.

### **Graduate Fees**

Courses taken for graduate credit are charged at the graduate rate. Courses taken for undergraduate credit are charged at the undergraduate rate.

### **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 as graduate students. 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.

### **Northwest Graduate Center at Missouri Western State University**

Northwest provides graduate programs to students in the St. Joseph metropolitan area through its Graduate Center located on the Missouri Western State University campus. Northwest graduate faculty instruct the majority of the Center's offerings.

The Center maintains an office on the Missouri Western campus which is open Monday through Friday to assist graduate students in determining their goals and objectives. The Northwest Graduate School Office also can assist students with their degree programs. Students seeking specific information about course offerings should consult the *Northwest Course Offerings* or the *Missouri Western Schedule of Continuing Education Classes*.

### **Graduate Assistantships**

Applications for graduate assistantships are available from the Graduate Office and should be filed by March 1 for the following school year.

### **Course Numbering**

600-level courses are reserved for graduate students only, while 500-level courses are available for either graduate or undergraduate credit. 700-level courses are reserved for students pursuing an Ed Specialist degree. 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 from the Northwest Office of Admissions and the Northwest Graduate Office.

# 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). 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 attorney's fees.

If the University removes a student from the class rolls for any reason, charges will be reduced according to the schedules on page 33. 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" policy on page 51.

The appeal body for most financial matters is the Student Financial Appeals Committee. Forms are available at the Student Services Center and online at [www.nwmissouri.edu/BURSAR/forms.htm](http://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 at least three weeks 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

The Lifetime Learning and HOPE Scholarship 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 web page ([www.nwmissouri.edu/BURSAR/taxlinks.htm](http://www.nwmissouri.edu/BURSAR/taxlinks.htm))

### Billing Policy – E-mail

The first bill for each trimester will be mailed to the student's permanent address. All subsequent bills will be e-mailed to the student's University e-mail account. If the student is not responsible for payment, an additional e-mail can be sent. The student must complete the 'EBL2' e-mail address in their 'CatPAWS account from the Personal Information Tab.

### THE FOLLOWING RATES AND POLICIES ARE APPLICABLE FOR FALL 2006, SPRING 2007 AND SUMMER 2007:

### Tuition and Fees (per credit hour)

All students enrolled in the University are required to pay tuition and fees as follows:

	Tuition/ Incidental Fee	Designated Fee	Tuition/ Textbook Usage Fee	Technology Access Fee	Total per Credit Hour
Missouri Resident					
Undergraduate	141.50	41.00	5.00	7.00	194.50
Graduate	185.50	51.75	0.00	7.00	244.25
Non-Resident					
Undergraduate	283.00	41.00	5.00	7.00	336.00
Graduate	371.00	51.75	0.00	7.00	429.75

A health fee of \$70 and an activity fee of \$35 will be charged each trimester to students enrolled in 6 or more credit hours coded as on campus.

Web courses are charged at the standard rate plus a \$32 per credit hour delivery fee.

Courses will be charged at the course level rate.

### Fees for Special Programs

See Bursar/ Cashiering web page [www.nwmissouri.edu/BURSAR/](http://www.nwmissouri.edu/BURSAR/)

### Room and Board

Single and Private rooms on a space available basis

Room Only for medical or other valid reason, with approval

**Apartments** - Electricity/gas extra

**Modified Suites** - Roberta and South Complex

**Other Halls** - Millikan, Franken, Phillips, Dieterich, North Complex

Fall/Spring 2006-2007 (per trimester)	Tower Suites	Modified Suites	All Other
Double Occupancy/Super Aladine	3,381	3,254	3,097
Double Occupancy/Standard Aladine	3,211	3,084	2,927
Double Occupancy/Lite Aladine	3,041	2,914	2,757
Private Room/Super Aladine	4,031	3,904	3,747
Private Room/Standard Aladine	3,861	3,734	3,577
Private Room/Lite Aladine	3,691	3,564	3,407
Single Room/Super Aladine	N/A	3,254	N/A
Single Room/Standard Aladine	N/A	3,084	N/A
Single Room/Lite Aladine	N/A	2,914	N/A
Deluxe Single Room/Super Aladine	N/A	3,554	N/A
Deluxe Single Room/Standard Aladine	N/A	3,384	N/A

Deluxe Single Room/Lite Aladine	N/A	3,214	N/A
Loft Room/Super Aladine	N/A	3,354	N/A
Loft Room/Standard Aladine	N/A	3,184	N/A
Loft Room/Lite Aladine	N/A	3,014	N/A
Private Loft Room/Super Aladine	N/A	4,004	N/A
Private Loft Room/Standard Aladine	N/A	3,834	N/A
Private Loft Room/Lite Aladine	N/A	3,664	N/A

**ROOM CONTRACT ONLY**

Room Only - Double Occupancy	1,981	1,854	1,697
Room Only - Private	2,631	2,504	2,347
Room Only - Loft	N/A	1,954	N/A
Room Only - Loft - Private	N/A	2,604	N/A
Room Only - Single	N/A	1,854	N/A
Room Only - Deluxe Single	N/A	2,154	N/A

**APARTMENTS****RATE**

Rental per month per bed*	426
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**MEAL CONTRACT ONLY****RATE**

Aladine Only - Super	1,400
Aladine Only - Standard	1,230
Aladine Only - Lite	1,060
Aladine Inclining	No Cap
Aladine - Basic Commuter	300
Aladine - Deluxe Commuter	600

\$25.00 Multiples of Aladine available (plus tax if not add-on to another meal plan).

Cash meals are also available.

**Summer 2007**

	Suites	Modified Suites	All Other
Double Occupancy (one session)	424	424	N/A
Private Room (one session)	587	587	N/A
Deluxe Single Room (one session)	N/A	524	N/A
Double Occupancy (4th session)	N/A	254	N/A
Private Room (4th session)	N/A	352	N/A
Deluxe Single Room (4th session)	N/A	314	N/A
Aladine	\$25.00 multiples (plus sales tax)		

**Housing Contract**

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

**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		Single Summer
	Course	Block Course	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% reduction	1 week	2 days	1 day

*Other time frames prorated accordingly.*

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

Specific dates are available on the Bursar's Office web site: [www.nwmissouri.edu/BURSAR](http://www.nwmissouri.edu/BURSAR) or contact the Bursar/Cashiering Office at (660) 562-1578.

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 Federal Stafford Loans, Subsidized Federal Stafford Loans, Unsubsidized Federal Direct Loans, Subsidized Federal Direct Loans, Federal Perkins Loans, Federal PLUS Loans, Federal Direct PLUS Loans, Federal PELL Grants, Federal SEOG Grants, other grant or loan assistance authorized by Title IV of the HEA.
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 Bursar/Cashiering Office, (660) 562-1106.

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

### **Miscellaneous Fees**

A list of Miscellaneous Fees is available at [www.nwmissouri.edu/BURSAR/miscfees.htm](http://www.nwmissouri.edu/BURSAR/miscfees.htm)

### **Graduate Assistant Fee Reductions/Work Related Scholarships**

If employment is terminated and the student remains enrolled, the fee reduction or scholarship is prorated for time employed.

### **Student Health Insurance**

Health insurance is available. The premium is set by the company. International students are required to carry approved health insurance. Contact the Intercultural and International Center for approval of policies other than the one available through Northwest. Proof of adequate coverage must be provided every fall.

# 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 semester credit hours, including transfer credit.

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” 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 Perkins Loan
- 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 must sign, date and return their award notifications by the deadline specified on the notification to confirm acceptance of their awards. Students may accept all or part of their awards. Offers of financial aid are void if award notifications are not properly completed and returned.

## Satisfactory Academic Progress

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

Quantitative progress requires students to pass a minimum number of credit hours. 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 quantitative and qualitative progress to maintain eligibility for any type of federal financial aid.

The University will attempt to notify students when they have not maintained satisfactory academic progress. However, 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.

## Quantitative Progress

Final quantitative progress will be determined at the end of **each trimester**. To be considered making satisfactory quantitative progress, undergraduate students must pass at least 75% of the cumulative credit hours which they have attempted, and graduate students must pass at least 66% of the cumulative credit hours which they have attempted. Failure to meet the appropriate completion rate at the end of the trimester will result in the student being placed on financial aid probation status for the next term.

Failure to meet the appropriate completion rate by the end of the probationary term will result in the loss of eligibility for all types of federal aid until the deficiency is removed.

## Course Audits

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

## Delayed/Incomplete Grades

Courses in which students receive delayed/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, students must have the following minimum Northwest cumulative grade point averages:

Freshman	1.75
Sophomore	2.00
Junior	2.00
Senior	2.00

Students who do not meet qualitative academic progress will be placed on financial aid probation for the next term of attendance. Students who have not removed this grade point average (GPA) deficiency by the end of the probation period will not be eligible to receive aid for subsequent periods of enrollment until the required Northwest and cumulative GPA are attained.

## Appeals Process

A student who fails to make satisfactory academic progress may appeal, in writing, the loss of eligibility. The appeal must be based on documented mitigating circumstances that were clearly beyond the student's control. Types of required 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 received by the Office of Scholarships and Financial Assistance within 14 days from the end of the trimester in which the deficiency occurred. 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 within seven days from the date on the financial review committee's written response. The decision of the Office of the Provost is final.

## 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)
- Missouri Gallagher Grants
- Missouri College Guarantee Grants
- 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)
- 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 as meeting satisfactory academic progress requirements.

### **Summer**

Students may not receive a Pell Grant for more than the equivalent of two trimesters of full-time study during an academic year. Therefore, students who receive Pell Grants for full-time enrollment for both the fall and spring trimesters are ineligible to receive a summer Pell Grant. Students with summer Pell Grant eligibility will be paid on the basis of their combined summer sessions enrollment status. Students must be enrolled in at least six credit hours to receive a loan or Federal Work Study.

### **Online Aid Applicants**

Students must be degree seeking at Northwest and be enrolled in at least six credit hours 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 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. Students 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.

- **Regular Attendance.** VA students must attend all classes according to each instructor's attendance policies. VA students must have their cards completed and signed by each of their instructors at the end of each month. The completed attendance card must be promptly submitted to the Office of Veterans' Affairs by the student. VA benefits will be terminated as of the last date of attendance reported by the instructor for students with unsatisfactory attendance.
- **Unsatisfactory Progress.** The University is required to notify the Veterans' Administration that a student did not make satisfactory progress if the student:
  - a) fails or withdraws from all classes; b) accumulates more than 12 hours of grades of "F" (9 hours for graduate students); 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.
- **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.

## 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. The student should also examine possible pre-professional interests and adapt the programs accordingly; and above all, consult with advisors about a program that will make it possible to change later into one of the several majors or pre-professional curricula.

## 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 contained in the *Course Offerings* booklet, which is available in the Office of the Registrar and the Student Services Center, and on the Northwest web site. 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 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. Students who fail to meet the deadline must complete withdrawal as outlined on page 50 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.

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 Registrar's Office.

### 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 (1) engaged in University activities endorsed by the provost, (2) prevented from attending class by illness, the validity of which is proven to the satisfaction of the instructor, or (3) prevented from attending by some other circumstances considered adequately extenuating by the course instructor.

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

### Freshman Seminar

Freshman Seminar is designed to introduce students to Northwest Missouri State University. Using the Northwest Covenant for Learning, each student develops a personal plan to understand and assume responsibility for one's own university experience. Course content will include

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. Students are enrolled in specific Freshman Seminar sections according to their major field of study: The College of Arts and Sciences (Department 71), The College of Education and Human Services (Department 73), The Booth College of Business and Professional Studies (Department 76), and Undeclared Majors (Department 77).

### Requirements:

1. Freshman Seminar is an entry-level requirement, as well as a graduation 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 Freshman 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 Freshman Seminar.
4. Non-traditional (those out of high school more than five years) degree-seeking students are not exempted from Freshman Seminar. These students may attend special sections provided for non-traditional students or may discuss with their Freshman Seminar instructor alternatives to those parts of the course which are deemed inappropriate because of their personal status.
5. A student who is dually-enrolled in high school and then enters as a full-time student at Northwest is required to take Freshman Seminar.

In order to preserve the intent of the course, students will not be allowed to take Freshman Seminar just to earn one hour of credit. Petitions for exceptions to the above requirements are considered by the Curriculum and Degree Requirements Committee of the Faculty Senate.

### 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, after having consulted the chairperson, will notify the student in writing of the formal charge. If the instructor involved is a chairperson, the instructor will consult with the dean of the appropriate college 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 or dean, 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, to the dean 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 within 10 academic days of receiving the charge. The chairperson (or dean if the case involves a chairperson) will then appoint a committee of at least three faculty or staff members from the department 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. A charge that is successfully appealed will be reported by the appropriate

committee to the chairperson of the appropriate department, to the dean 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 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 to be used 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-week 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.

### **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 and above courses are not available on a no-credit basis.**

### **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 sessions 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.

### 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 his or 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 his or her degree after a total of 30 hours has been completed in correspondence or extension courses.

### Credit System

The unit of credit is the semester hour. Lecture-recitation courses average one hour of meeting per week in a trimester for each hour of credit given. Laboratory courses average two or more hours per week in a trimester for each hour of credit given.

The amount of credit for each course is indicated in the departmental statements, in this catalog, in the *Course Offerings* booklet, and on the Northwest web page by accessing the 'CatPAWS "Class Schedule" link.

### 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 form 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 indicate on the form 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 candidate for a baccalaureate degree must remove all previously assigned incomplete grades by the end of the term of graduation or the grades become “F” grades on the permanent record. Upon removal of the incomplete grade, the student will then be considered for graduation at the next graduation period.

Requests for extension of time must be petitioned to the Committee on Admissions and Advanced Standing.

## In-Progress Grade

The in-progress (IP) grade is used only for high school dual enrollment and outreach 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 candidate for a baccalaureate degree must remove all previously assigned in-progress grades by the end of the term of graduation or 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 “D” or “F” in a course may repeat the course 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. When a course is repeated both the old and new grades will appear on the student’s record, but only the higher grade earned will be used in determining the cumulative grade point average. A petition for superseding must be completed and returned at the time of registration for the course to be repeated. Petitions for superseding may be obtained in the Office of the Registrar.

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.

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.

### **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. 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. 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 academic evaluation, the student shall have the right to make written appeal to the departmental-level Student Relations Committee through the department chairperson or coordinator. Such a committee shall consist of at least one faculty member and one student who are not directly involved in the case.

A departmental-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 or coordinator. The written decision and the signatures of the committee members shall be filed in the department.

If the departmental-level Student Relations Committee supports the student but the instructor refuses to accept the decision of the committee, the student may, as a last resort, appeal to the department chairperson or coordinator. Should the allegation concern the department chairperson, the final appeal shall be made to the dean of the college or as otherwise designated by the chief academic officer.

## **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 Registrar's Office.
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 General Education 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.

### **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 **GPA**s 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” section on page 17.

### **Departmental Test-Out**

Departmental test-out differs from advanced placement in that the examinations are administered and credit awarded solely by the department, and not through national institutions such as CLEP, ACT, etc. Therefore, the student should contact the department 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 or college dean on or before the first day of classes. The chairperson or dean determines what courses are available for test-out and will arrange for the test-out process in accordance with department policy. Test-out must be completed within the first five days of a trimester or within the first two days of a four-week course.

Test-out may not be taken to supersede a “D” or “F” grade. Test-out may be repeated twice in eligible classes, subject to department 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 Bursar/Cashiering Office. (See “Fees and Costs” 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 prior to testing. The department chairperson 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.

### **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" 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 in the Advisement Assistance and Resource 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" 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.

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 or with a signed fax request. 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 immediately following the fax request. (See "Fees and Costs" section.)

### **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 Treasurer 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 uses the Degree Audit Reporting System (DARS) developed at Miami University of Ohio to help students track their academic progress toward completing a degree program. DARS is an on-line automated program which produces degree audits for degree programs valid since the 1991-92 *Undergraduate Catalog*. 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 for all currently-enrolled students are sent to advisors in fall and spring with pre-registration materials. Degree audits are sent to transfer students accepted to the University. A student may also request a degree audit at any time from the Office of the Registrar.

Degree audits are prepared to assist students during their college experience. Efforts have been made to ensure the accuracy of the degree audit; however, final certification that a student has completed all graduation requirements is the responsibility of the Registrar. The student is responsible for knowing and meeting the requirements for a degree.

## Appeals Process for Academic Policies

The process of appealing decisions beyond the action of either the Committee on Admissions and Advanced Standing or the Curriculum and Degree Requirements Committee rests with the faculty Academic Appeals Committee. 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. The student will have the opportunity to plead the case in person. Petitioners are expected to submit new information not available to the committee of origin at the time of the hearing or demonstrated error or prejudice on the part of the 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 (Eng 10-111 and 10-112, or 10-115) 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 Eng 10-112 or 10-115. Information about assessment procedures and retake options may be obtained from the Department of English office.

### State Law Requirement for Degrees or Certificates

Candidates for degrees or teaching certificates must meet state law requirements, Section 170.011 (Rev 1986), 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 34-102, or (2) complete the requirement at another collegiate institution with substitution determined by the Office of Admissions. Transfer students who have had a course in American government that did not include a study of the Missouri Constitution must successfully complete PolS 34-201 Missouri Politics. Students successfully completing PolS 34-203 State and Local Government at Northwest may have PolS 34-201 Missouri Politics waived. See chairperson of the Department of History, Humanities, Philosophy and Political Science for approval of waiver.

### Advanced Standing Requirement

Each department or college may have an advanced standing requirement. Under this policy a department or college may require a student wishing to pursue a major in that department or college 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 or college without further requirement. Refer to appropriate departmental advanced standing statements.

Negative decisions regarding a student’s advanced standing may be appealed to the dean of the college.

### 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 Deficiency Statement**

Students are urged to request a listing of deficiencies at least two trimesters prior to their graduation. Forms are available in the Office of the Registrar or can be submitted from the Registrar's Office web page, [www.nwmissouri.edu/registrar/](http://www.nwmissouri.edu/registrar/). Any deviation from the deficiency listing must have approval from the department where the major or minor is involved or from the Curriculum and Degree Requirements Committee when General Education requirements are affected.

### **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 available in the Office of the Registrar or can be submitted on the Registrar's Office web page, [www.nwmissouri.edu/registrar/](http://www.nwmissouri.edu/registrar/).

### **Commencement**

Degrees are conferred at the end of each term, and commencement exercises are held each term. The graduation fee is assessed whether or not the student plans to participate in commencement exercises. (See "Fees and Costs" section.)

If a student is meeting all graduation requirements, with the exception of a summer academic internship experience, and the internship extends past the summer trimester commencement date, the student can petition the Admissions and Advanced Standing Committee to participate in the spring trimester commencement. Such requests must be submitted prior to April 1 of the trimester preceding the summer internship.

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

### **Academic Residence**

1. At least 30 semester hours of academic work must be done in residence.
2. The last 10 semester 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 Registrar's Office.

### **Senior College Credit (Upper Division)**

1. Candidates for the Bachelor of Science, Bachelor of Science in Education, and Bachelor of Fine Arts 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 of at least 2.50 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 cumulative grade point average of at least a 2.00.

### **Majors and Minors**

For the Bachelor of Arts, Bachelor of Fine Arts, Bachelor of Science, and Bachelor of Science in Education degrees, the student must choose a major and minor, or a comprehensive major, selected from the departments. 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 or program coordinators, the advisors, and the Office of Career Services are available to counsel students on this matter.

### **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 College of Education and Human Services.

## Student Life Policies and Regulations

### Student Records

Northwest complies with the Family Educational Rights and Privacy Act which provides guidelines on storage and releasing of student and former student records. Individuals may waive their rights to inspect records at Northwest, but the University may not require such a waiver as a condition to attendance.

Individuals may request a copy of their records, for a copying fee, from the following offices:

- **Academic Records:** Office of the Registrar, Administration Building
- **Advisement Records:** Academic Departments and/or Office of the Registrar
- **Alumni Records:** Office of Development and Alumni Relations, Alumni House
- **Disciplinary Records:** Office of the Vice President for Student Affairs, J.W. Jones Student Union
- **Financial Records:** Bursar/Cashiering Office, Administration Building
- **Financial Assistance Records:** Office of Scholarships and Financial Assistance, Administration Building
- **Housing Records:** Residential Life Office, J.W. Jones Student Union
- **Library Records:** B.D. Owens Library
- **Medical Records:** University Health Center
- **Placement Records:** Office of Career Services, Administration Building
- **Security Records:** Campus Safety Office, Support Services Building
- **Student Teaching Records:** Educational Field Experiences Office, Brown Education Hall
- **Teacher Education Records:** Teacher Education Student Services Office, Brown Education Hall

Information remains confidential between the individual and the University, and will not be released to a third party without the written consent of the student. Exceptions to this rule include information released to Northwest officials, officials of other schools where the student is seeking admission, federal or state educational authorities, financial assistance officials in connection with the receipt of financial assistance, state law officials or subpoenaed requests, accrediting organizations and parents of dependent students.

These parties will receive a notice that the information released to them must not be further distributed without the consent of the student.

The following records are **not** available for inspection by a third party: parents' financial records, confidential letters of recommendation written before January 1, 1975, personal records of educators (e.g., instructor's grade book), employee records, and medical or other professional records, unless the individual wishes to have a qualified professional examine his or her record.

Certain information about the currently enrolled student—name, age, address, phone, e-mail address, place and date of birth, major, participation in activities and sports, weight and height of athletes, dates of attendance, degrees and awards received, the most recent educational institution attended—is considered public information. If a student does not want this information released, he or she should contact the Office of the Registrar, Administration Building, within 10 days of the beginning of the term.

Inaccurate records may be challenged through a hearing requested through the vice president for student affairs. The burden of proof that a record is inaccurate lies with the student. An impartial hearing officer will be appointed, to whom the student will have full opportunity to

present his or her case. If desired, a student may submit a written explanation of the content of a record, which will become part of the record.

For any further information on student and former student records and records privacy, contact the Office of the Vice President for Student Affairs or the Office of the Registrar.

### **University Housing Policy**

Research has proven that freshmen experience a decided 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 guardians' home or unless they are married. Students must petition to the Housing Release Committee by completing the Commuting Form in the acceptance packet to 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 also serves as a meal card for students on a meal plan. In addition the card is used in the library, at sporting events, and as a cash card for laundry, 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. (See "Fees and Costs" section.)

### **Campus Conduct Program**

Coordinated by the associate vice president for student affairs, the Campus Conduct Program is a multi-leveled system of discipline committees designed to hear student grievances and violations of the Judicial Code. For more information, refer to the *Student Handbook* or contact the assistant vice president for student affairs, (660) 562-1219.

### **Motor Vehicle Registration**

Students are responsible for knowing and observing the parking and traffic policies. All vehicles must be registered with Campus Safety 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 Office of Campus Safety, 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 Campus Safety.



# 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, distribution of refund and payroll checks, 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 families. Student Ambassadors guide these prospects on tours of the campus and will arrange appointments with faculty, financial assistance or other specific areas as requested. 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, 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.

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, refunds, and automatic applications of financial assistance should be directed to the Bursar/Cashiering Office, (660) 562-1578.

In cases of exceptional circumstances the collections supervisor, in the same office complex, should be contacted for an extension of payment deadline. The number to call is (660) 562-1583. (NOTE: If a delay in financial assistance creates an inability to pay on time, the Office of Scholarships and Financial Assistance should be contacted at (660) 562-1363.)

### **Advisement Assistance and Resource Office**

The Advisement Assistance and Resource Office 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 provides training to Northwest faculty advisors. Any student seeking general advisement is welcome to visit the office located on the second floor of the Administration Building.

### **B.D. Owens Library**

The B.D. Owens Library contains some 350,000 volumes in a modern, three-story building designed to support the needs of Northwest's students and faculty in conducting scholarly research, maintaining current knowledge in subjects of interest, and reading for personal growth and enrichment. Owens is known throughout the Midwest for giving its patrons the best tools available in information technology and information management. By providing state-of-the-art resources in an environment characterized by friendly, professional assistance, the information services staff help patrons develop lifelong learning and communication skills as well as research competencies. Owens Library information professionals are committed to exemplary personalized service for their patrons in a dynamic learning environment.

Owens' collections and services are an integral part of the Electronic Campus Network. Using the Owens Library Web pages, students and faculty can search periodical databases for full-text, full-image articles; check the library catalog for the availability of books, government documents, and audiovisual materials; find links to course-related information on the Internet; request mate-

rials via interlibrary loan or ask reference questions. Traditional face-to-face reference service is available at the Library Services Desk. Students can schedule individual research consultations with library information professionals, and faculty can request one-on-one assistance exploring electronic library resources with the Faculty Office Calls service.

Owens is also home to several key facilities widely used by the University community. The Academic Computing Laboratories, located on the first and second floors, have Electronic Campus Network computer terminals for patron use during all library hours. Immediately adjacent to the second floor lab, the Electronic Lecture Room serves as an instructional and presentation area because of its wide variety of projection and computing resources. There is also a Distance Learning room on second floor with equipment to enable students and teachers on campus to interact with those on other campuses. Wireless connection to the Internet and Electronic Campus Network is available on the second and third floors. The second floor contains an area for the wired connection of notebook computers. Also on second floor is the Center for Information Technology in Education (CITE). CITE assists faculty in using the latest technology to enhance their courses. The second and third floors contain the special collections in state and regional history, journalism, literature and education which attract scholars and meet their research needs through rare or comprehensive collections.

The Teaching Resources Area addresses learning and presentation needs of the University community through a variety of non-print materials, services, and equipment as well as through special resources and collections, such as the Curriculum Materials Center.

Throughout the library, areas for private study and reading are available as well as areas that encourage group study and team projects. Small group study and meeting rooms are available to patrons as are reference assistance services like the nationally known "Help with Research" service offered by the information professionals.

### **University Health Center**

The Health Center promotes health education and the concept of wellness among students, faculty, and staff by providing health counseling to individuals and groups. Presentations on a variety of health topics are offered to student organizations, residence halls, freshman seminar classes, and others within the campus community.

Located west of the high-rise residence halls, the Health Center provides health care in a clinic setting for full- and part-time students. In the fall and spring trimesters, full-time nursing and physician services are offered between 8 a.m. and 5 p.m. Limited appointments are available during the summer.

There is a consulting fee to see the medical staff. Students enrolled in six or more credit hours on campus pay a Health Fee which covers the consultation for Health Services including Health Center and Counseling Center. For those students taking fewer than six credit hours, the fee to see the nurses or the physician may vary depending on the complexity of the problem. The charge may be billed to the student's account if he or she is unable to pay at the time of the visit. Other fees, established for laboratory procedures, medications, medical supplies and treatments may be billed to the student's account, if necessary. (See "Fees and Costs" section.) Due to the reduced fee schedule it is not feasible for the Health Center to file insurance claims. However, at the time of the visit, the student will be given a copy of the bill which may be sent to the insurance company. St. Francis Hospital & Health Services provides 24-hour emergency service, x-ray, and specialty clinics and procedures.

Prior to enrollment, all first-time students who are foreign-born, or have spent more than three continuous months outside the United States, or have a known exposure to tuberculosis, must

have documentation of tuberculosis screening done in the United States within the past year. If this requirement is not met, the student's registration will be blocked.

All students are required at the time of admission to comply with the University's policy on immunization for measles and rubella. The policy states that a student born during or after 1957 must show documented proof of immunity to rubeola and rubella before attending the University.

### **Computing Services**

Unique to the nation, Northwest provides computing services to students, faculty, and staff via the Electronic Campus network of over 4,000 notebook computers and personal computers. Featuring notebook computers for every student living in the residence halls, the network is supported by high speed gigabit connections between buildings and a high speed switched hub. Interactive computing and computer-aided instruction is supported by 60 Servers, including a large multiprocessor Exchange e-mail server. The local-area networks on campus are linked with a 40 mps link to national and international wide-area networks via MOREnet and Internet. These services are available to every student and faculty member. Wide-area computing services include electronic mail, remote library searches, and remote login access to super computers across the nation, plus locally supported World Wide Web and groupware servers.

Students are assigned an account number which can access many services of the Electronic Campus, free of charge. For example, web servers provide general information on class offerings, student and faculty directories, calendars, scholarship offerings and job openings. Web servers also provide students with a self-enrollment system enabling students to select course sections they desire. E-mail is a popular way to send class work to instructors as well as messages to friends. Students can word-process assignments and develop spreadsheets, then have them printed at several locations across campus. There is a small printing fee for the laser and color printers. The library on-line catalog, text retrieval, and encyclopedia systems are Web-based information systems. Each student living in the residence halls has a personal voice mailbox and a long distance calling card. Students living off campus can rent a notebook computer or a Blackberry to access the campus e-mail system.

### **Textbook Services**

The Textbook Services Office coordinates all aspects of the textbook usage program, in which primary textbooks are provided for undergraduate students for all their enrolled courses. Students pay a per credit hour fee for textbook usage. Students pick up their textbooks at the beginning of each trimester and must return the books by 5:00 p.m. of the last day of finals for the trimester. Late fees are assessed for books that are not returned on time. Student may also purchase discontinued textbooks at a reduced rate. Students wishing to purchase textbooks currently being used may do so by contacting the Textbook Services Office at (660) 562-1150.

### **Peer Education**

Northwest Peer Educators are students who have received certification through the national peer education network, Bacchus/Gamma. They educate other students through Freshman Seminar, classroom seminars, student organizations, 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 University Health Center, (660) 562-1348.

## **Volunteer Services**

The Office of Volunteer Services is located in the Student Affairs Complex in the J. W. Jones Student Union. Special service days such as BRUSH (Beautify Residences Using Student Help), Martin Luther King Service Day, and other major activities are coordinated by this office. Students or organizations wishing to find out more about volunteer activities for individuals or for student organizations should contact the coordinator at (660) 562-1954.

## **Learning Assistance Programs and Services**

Students who do not possess college-level academic skills in foundational areas are expected to begin addressing their deficiencies in the first trimester, to affiliate with or use one or more of the following learning assistance programs or services, and to attend special programming and skills-building activities.

## **Assist and Student Athlete Success Programs**

Located on the third floor of the Administration Building, Northwest's Assist and Student Athlete Success Programs provide at-risk freshmen and student-athletes 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 promote the development of positive attitudes; and provide guidance and recommendations for using institutional resources and services. A special feature of the Student Athlete Success Program is its focus on persistence to graduation for Northwest's student-athletes.

## **Talent Development Center**

The Talent Development Center (TDC), located on the third floor of the Administration Building, offers comprehensive learning assistance to the University community. Serving over 3,000 students a year through scheduled face-to-face tutoring sessions and group study, the TDC provides free learning assistance in most rigorous subject areas in the general education program, as well as individualized assistance for significant numbers of highly-motivated students working toward professional standards in writing, research, critical thinking and analysis.

## **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 found in the brochure "Services for Students with Disabilities" available at the Student Services Center in the Administration Building.

## **Office of Assessment, Information and Analysis**

The Office of Assessment, Information and Analysis is responsible for the design, implementation and interpretation of a variety of assessment activities required by the University in its attempts to maintain high quality programs and provide the citizens of Missouri with information about student learning. These projects include directing diagnostic and advisory placement tests, organizing focus groups, administering attitudinal surveys, general education tests, and coordinating major field subject matter examinations selected by the departments.

### **Northwest Writing Center**

Located in Colden Hall (Room 1810), the Northwest Writing Center offers tutoring to students wanting to become better writers. Any undergraduate or graduate student, staff member, or faculty may visit the center or call (660) 562-1480 to reserve time to receive individual help. Graduate Assistants and peer tutors will help with any kind of writing task—essays, reports, research papers, letters, and other assignments—but they do not merely proofread papers. Tutors can guide writers through prewriting, revising, and editing. The Writing Center also provides small group tutoring for students in Developmental English classes and standing appointments for English as a Second Language (ESL) students or students with special needs.

### **University Mathematics Laboratory**

The Mathematics Laboratory, located in Garrett-Strong 2930, provides limited tutorial help for most lower-division mathematics courses. Lab assistants are available several hours per day, and they help students on a walk-in basis. The lab also has a collection of reference materials designed for students desiring special information or help.

### **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.

### **Counseling Center**

Located in Wells Hall, the Counseling Center provides therapeutic services to students free of charge. The Center is staffed with psychologists and counselors who assist individuals with personal, educational and vocational concerns, through individual and group counseling. Students may use the services of the Counseling Center to explore personal experiences, develop strengths, resolve relationship conflicts, choose a major, make career plans or work on academic difficulties. The Counseling Center also administers and interprets psychological measurements of interest, personality and ability.

Workshops, group programs and consultations are offered to students and the University community to create and support a quality living/learning environment conducive to students' educational, social and personal development. Individuals may be referred to other University or community resources and agencies when further assistance is needed.

### **Institutional Testing Services**

A number of national educational tests are administered by the Counseling Center staff which may be required for undergraduate or graduate admissions, course waivers, and University graduation requirements. These tests include the ACT, MAT, Praxis Series II, CLEP, C-Base and others. The center also administers the GED for high school diploma equivalency. For information, application forms, fees, testing dates and services, visit 120 Wells Hall or call (660) 562-1220.

### **English as a Second Language Program**

The English as a Second Language Program helps provide its students with not only the English

skills they will need to be successful in an institution of higher education, but also the academic skills that will enable them to be better learners.

The program offers five seven- or eight-week sessions beginning in January, late February or March, June, August and October. Before classes begin, students take placement tests to determine their English ability and are then placed into classes at the appropriate level. Classes have an average of 10 students and meet 20 or more hours per week.

Admission is open to any international student who has finished high school and has the desire to learn English. Matriculation in the ESL Program does not guarantee or imply acceptance to a University academic degree program.

### **Office of Career Services**

The Office of Career Services provides opportunities for each Northwest student and graduate to develop a clear career objective, obtain relevant experience and learn the skills necessary to conduct a successful, professional internship/job search. This mission is met through offering major and career counseling or job search, assisting with networking, and hosting “career” events for both educational and noneducational candidates.

Career Services provides career counseling for students exploring career options, job search assistance to graduating students and alumni who are seeking full-time employment, preparation for graduate or professional school, and coordination of internships. At Northwest, internships offer the chance to enhance classroom knowledge with career-related work experience. This powerful addition to classroom learning allows students to gain practical, useful experience; test suitability for a specific career; network with professionals in the student’s field; and prepare for the competitive marketplace. Information about job and internship opportunities are available in a searchable, on-line database via the Career Services web site called “Career Connections.” Other services include the following: DISCOVER, an electronic planning and exploration system; company and organization information; a career library; educational directories; classroom presentations; job search correspondence; comprehensive informational web site; on-campus interviews and University placement statistics.

All Northwest students and alumni are eligible for the services provided. During internship/job searches, students may register for inclusion in the Career Connections database. Registration allows students access to interested employer data and employers access to qualified student data through our referral process. This process includes the uploading of a resume into the office’s database. Services are free to current undergraduates, extending for three months past graduation. Graduate students are eligible for free service during their academic tenure. Alumni may activate their file for a small fee. (See “Fees and Costs” section.) Candidates are encouraged to update references and to keep their personal information current. Teaching candidates may maintain up to six letters of recommendation in their files. The Office of Career Services is located on the first floor of the Administration Building.

### **Campus Safety**

Located in the Support Services Building on the east side of campus, Campus Safety, 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

Located on the second floor of the J.W. Jones Union, the Bearcat Bookstore carries school and office supplies, gift items, greeting cards, Bearcat apparel and memorabilia, health and drug items, instructional materials and supplies, as well as books and other items. Graduate-level texts and undergraduate workbooks and study guides are available. The Bookstore also coordinates and orders graduation announcements, and class ring information is also available. Fall and spring trimester hours are 8:00 a.m.-5:00 p.m., Monday-Thursday; 8:00 a.m.-4:30 p.m., Friday; and special Saturday hours on days of home football games. Summer session hours are 9:00 a.m.-4:00 p.m., Monday-Thursday.

## Student Media

The student media, located in Wells Hall, includes broadcast, print and online facilities. The studios of KZLX-LP/KDLX, KXCV-FM/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 broadcasting. Included are opportunities to develop skills in sales, production, management, programming, news and sports, and promotions.

Additionally, students can further develop skills in announcing, feature production, programming, development and news on KXCV/KRNW-FM. These stations provide the public radio mainstays of in-depth news, classical and jazz music in a broadcast area ranging from Omaha, Neb., to Kirksville, Mo., and from Des Moines, Iowa, to Kansas City. The stations are members of National Public Radio (NPR) and American Public Radio and produce programming broadcasts on both networks.

KNWT-TV serves both the Northwest campus and the city of Maryville. Students learn the basic use of television equipment, production, direction, station operations, and computers while producing a wide variety of television programming. Student-produced programming consists of newscasts, sports programs, talk shows, music video, and documentaries. Students have the opportunity to build skills in front of and behind the cameras. KNWT-TV is operated by a student general manager paid through a trimester scholarship.

Student Publications is located on the lower level of Wells Hall and includes *The Northwest Missourian* weekly newspaper, the *Tower* yearbook and *Heartland View* magazine. Student publications offer students practical experience for a journalism/communication career. All publications are governed by a student-operated editorial board. Northwest is the only university/college in the country to have all three publications recognized as All-American award winners by the Associated Collegiate Press.

*The Northwest Missourian* is a campus and community news forum. Students learn news writing, sports writing, feature writing, editorial writing, photography, advertising, graphics and design skills while working on the newspaper. An electronic version is available on the web at [www.nwmissouri.news.com](http://www.nwmissouri.news.com). *The Northwest Missourian* is recognized as a Pacemaker publication (top one 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 travel and leisure magazine covering Iowa, Nebraska, Kansas and Missouri. This professional magazine can be found online at [www.heartlandview.com](http://www.heartlandview.com).

*Tower* is consistently honored as one of the top six yearbooks in the country. *Tower* was one of the first six yearbooks in the country to be inducted into ACP's Hall of Fame. *Tower* also includes a



DVD with each publication. Northwest was the first public university in the country to produce a CD-ROM supplement to the yearbook and now a DVD supplement. *Tower* is recognized as a Pacemaker publication by ACP and a Gold Crown winner by CSPA.

### **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 a fine exhibit for the general public.

### **Small Business Development Center (SBDC)**

Northwest's Small Business Development Center is part of a network of SBDCs that are funded by the Small Business Administration. The mission of the Missouri Small Business Development Centers (MO SBDC) system is to improve competitiveness and management quality of Missouri's small businesses. MO SBDC will help these businesses identify problems, explore opportunities, and obtain solutions by offering comprehensive, timely assistance to stimulate economic growth. Assistance will be provided by the MO SBDC statewide university- and college-based system and through a network of alliances with external sources of expertise. Northwest's SBDC serves a 17-county region with three office locations: Maryville, St. Joseph and Chillicothe.

### **Intercultural and International Center (IIC)**

The Intercultural and International Center, located in the J.W. Jones Student Union, 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 IIC provides leadership and assistance to individuals, groups, departments, and in the surrounding community on issues of cultural and ethnic diversity specifically related to educational programming, diversity training, cultural enrichment activities, curriculum development, international education and studies programs, recruitment, retention and policy making. It provides essential services to international and underrepresented students, such as intercultural and international orientation programs, general advising, conflict resolution and mediation, immigration matters, departmental referrals and peer mentoring to ensure academic success through graduation.

The director of international affairs and the director of minority affairs advise and support multicultural student organizations to link with all Northwest student organizations to enhance campus activities and to create an enriched college environment that is a characterization of our global community. Through these educational programs and tailored student support services, the IIC serves as a cultural bridge to develop and practice the skills necessary to become citizens of the world. The IIC supports international education and studies programs and assists students in identifying the program best suited to meet their academic and cultural interest.

### **Study Abroad Office**

The Study Abroad Office at Northwest strives to provide students and faculty with exposure to different educational systems and insight into new cultures that will allow them to develop necessary skills to interact in a world of constant change.

Studying abroad is one of many academic options that Northwest students from all academic areas are invited to experience. Whether a short study tour, 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.

The Study Abroad office assists students in identifying the program best suited to meet their academic and cultural interests. Study Abroad advisors link students with academic advisors, financial aid counselors, and other student service providers to plan a rewarding international educational experience.

### **Center for Information Technology in Education (CITE)**

The Center for Information Technology in Education plays an integral part in Northwest's effort to enhance student learning through the use of technology. Beyond CITE's primary focus of supporting the integration of technology into on campus courses, it is also extensively involved in the creation and development of web-based courses and programs. The goal is to enhance student opportunities for learning by providing them high quality courses that can meet the time and space flexibility requirements many of them face in today's continuous learning environment.

### **On-Line Articulation Agreements**

Northwest Missouri State University has entered into several articulation agreements with community college in Missouri, Colorado, Iowa, Kansas, Nebraska, North Carolina and Oklahoma. 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 from the associate in applied science degree to the baccalaureate degree. A current listing of schools and agreements, may be found at [www.northwestonline.org](http://www.northwestonline.org) or <http://cite.nwmissouri.edu/nwonline/viewbook/>.

The Bachelor of Science in Accounting, the Bachelor of Science in Business Management, or the Bachelor of Science in Office Information Systems degree programs may be completed at Northwest either by attending traditional campus-based classes or by participating in Northwest's web-based online degree programs.

Any student from one of these community colleges with an AAS degree in the designated program is guaranteed that Northwest will accept designated freshman and sophomore business administration credit hours, general education credits required for the AAS degree, plus any freshman and sophomore general education hours required by Northwest beyond the AAS degree. This will apply to students maintaining continuous enrollment or matriculating into Northwest within one year from their last registration date with the community college. Students must complete at least 124 credit hours and satisfy all major requirements in order to receive a Bachelor of Science degree in accounting or business management from Northwest.

### **Northwest Missouri Educational Consortium (NMEC)**

The Northwest Missouri Educational Consortium is a collaborative effort by the following educational institutions to provide a single point of presence for distance education throughout the region.

- North Central Career Center, Bethany
- Brookfield Area Career Center, Brookfield
- Grand River Technical School, Chillicothe

- Northwest Technical School, Maryville
- North Central Missouri College, Trenton
- Northwest Missouri State University, Maryville
- University of Missouri, Columbia

Distance learning is an approach to education in which a majority of the instruction occurs when student and instructor are not in the same place. Instruction may be synchronous or asynchronous. Distance learning allows for the adoption of a range of learning strategies in a variety of technology-based learning environments such as Interactive Television, online (web-based) and teleconferencing. Distance education caters to a learner's differences in learning styles, learning interests and needs, while offering variations in learning opportunities. Interactive television (ITV) is a technology-driven means of letting people in different locations simultaneously see and hear each other, working in much the same way they would if they were all in the same room. ITV connects two or more remote locations, letting parties at either end see video images of each other as well as sharing audio and data. Classes are offered in the following areas: A.A.S., B.S., M.S., and selected non-credit areas. Individuals seeking information about the Northwest Missouri Educational Consortium may call (660) 562-1113 or access our web site at <http://info.nwmissouri.edu/NMEC/>.

### **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 either at Northwest or at Missouri Western State University. 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. The Military Science office is located at Missouri Western State University and can be reached toll free at 1-800-647-2881. The Northwest Missouri State University Department of Geology and Geography (660-562-1723) acts as the on-campus point of contact for the Military Science program. The Geology/Geography Department also houses the Northwest Faculty Liaison to the Military Science Program. Contact the Northwest Faculty Liaison at (660) 562-1672 for information on Military Science programs and scholarships.

### **Kansas City Center at Liberty**

The newly created Northwest Missouri State University Kansas City Center is located in Liberty, Mo., under the terms of a cooperative agreement with the Liberty Public School District.

Northwest and the Liberty Public Schools continue to offer high quality educational programs that have been their hallmark. This partnership between the two provides learning and collaborative opportunities for both institutions.

Northwest will occupy the top two floors of a four-story office building the district recently purchased adjacent to Liberty High School. Now called the Blue Jay Tower Plaza, the building will also house the district's alternative school (Liberty Academy) and a technology service center and career computer lab.

For more information, the web site is [www.nwmissouri.edu/NWKC](http://www.nwmissouri.edu/NWKC). Contact the Center at (816) 736-6600 or (660) 562-1429 (Northwest campus phone) or email [nwkc@nwmissouri.edu](mailto:nwkc@nwmissouri.edu).

# DEGREE REQUIREMENTS

## Pre-Professional Degree 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—the student may major in any area of interest. Therefore, students should have both a pre-professional and a major advisor.

<b>Pre-Profession</b>	<b>Advisor</b>	<b>Academic Area</b>
Architecture	John Shaw	Physics
Audiology & Speech Pathology	Lori Durbin	Communication and Theatre
Chiropractic	Jeffrey Thornsberry	Biology
Dental Hygiene	Janette Padgitt	Biology
Dentistry	Janette Padgitt	Biology
Engineering	John Shaw	Physics
Forestry	David Easterla	Biology
Law	David McLaughlin	Political Science
Clinical Laboratory Sciences (formerly Medical Technology)	Phillip Lucido	Biology
Medicine	Peter Kondrashov	Biology
	Jeffrey Thornsberry	Biology
Mortuary Science	Karen Schaffer	Biology
Nursing	Karen Schaffer	Biology
Occupational Therapy	Suzanne Frucht	Biology
Optometry	Janette Padgitt	Biology
Osteopathic & Allopathic Medicine	Suzanne Frucht	Biology
Pharmacy	Jeffrey Thornsberry	Biology
Physical Therapy	Suzanne Frucht	Biology
Podiatry	Suzanne Frucht	Biology
Professional Zoology	Peter Kondrashov	Biology
Radiology	Janette Padgitt	Biology
Respiratory Therapy	Suzanne Frucht	Biology
Veterinary Medicine	Gregg Dieringer	Biology
	Dennis Padgitt	Agriculture

# General Education Requirements

## **The General Education Rationale Statement**

General education is the curricular foundation at Northwest Missouri State University. It encourages students to acquire and use the intellectual tools, knowledge, and creative capabilities necessary to study the world as it is, as it has been understood, and as it might be imagined. It also furnishes them with skills that enable them to deepen their understanding and to communicate it to others. Through general education, Northwest equips students for success in their specialized areas of study and for fulfilled lives as educated persons, as active citizens, and as effective contributors to their own prosperity and to the general welfare.

Knowledge is ever changing; therefore general education must alert students to the connections and the potential for interaction among all branches of knowing, ordering, and imagining. General education should inform students that the world is understood in different ways and should provide them with the means to come to terms, intelligently and humanely, with diversity. As a result of their general education, students should acquire appropriate investigative, interpretative, and communicative competencies.

## **The General Education Portion of Degree Requirements**

In order to complete the bachelor's degree, students must take the general education 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.

## **General Education Requirements**

General Education courses are required for the Bachelor of Arts, the Bachelor of Fine Arts, the Bachelor of Science, the Bachelor of Science in Education, and the Bachelor of Science in Medical Technology.

Required courses for the Bachelor of Technology may be chosen from the General Education Requirements. See page 79 for specific information on this degree.

General Education courses cannot satisfy both General Education Requirements and Major/Minor requirements, unless specifically permitted in this catalog.

It is recommended that students carefully sequence courses from the General Education Requirements during their freshman and sophomore years.

**GENERAL EDUCATION REQUIREMENTS****FRESHMAN SEMINAR** (pages 41, 83, 231, 295) . . . . . **1 hour****WRITTEN COMMUNICATION** . . . . . **6 hours**

Required Courses:

Any student with ACT English score of 19 or above

Eng 10-111 Composition (page 164) . . . . . 3 hours

Eng 10-112 Composition (page 164) . . . . . 3 hours

For students with ACT English score of 27 or above

Eng 10-115 Composition (page 164) . . . . . 3 hours

Eng ACT credit upon successful completion of Eng 10-115,  
except for students with previous English composition credit . . . . . 3 hours

Students who have an ACT English score of 27 or above may elect to take Eng 10-111 and Eng 10-112. Students with credit for Eng 10-111 and an ACT English score of 27 or above may elect to take Eng 10-115 for three hours credit rather than Eng 10-112. **No student may receive more than six hours credit for the freshman composition requirement.**

**NOTE:** Eng 10-110 Developmental English is a prerequisite for students who do not meet placement criteria for Eng 10-111.

**ORAL COMMUNICATION** . . . . . **3 hours**

Required Course:

Com 29-102 Fundamentals of Oral Communication (page 151) . . . . . 3 hours

**MATHEMATICS: Advisement necessary for correct selection** . . . . . **3 hours**

Required: One of the following courses:

Math 17-110 Finite Mathematics (page 203) . . . . . 4 hours

Math 17-114 General Statistics (page 205) . . . . . 3 hours

Math 17-115 Concepts of Mathematics (page 204) . . . . . 3 hours

Math 17-117 Precalculus (page 204) . . . . . 4 hours

Math 17-118 College Algebra (page 204) . . . . . 3 hours

Math 17-120 Calculus I (page 204) . . . . . 4 hours

Math 17-171 Fundamentals of Mathematics (page 204) . . . . . 3 hours

**POLITICAL SCIENCE** . . . . . **3 hours**

Required Course:

PolS 34-102 Introduction to American

Government &amp; Politics (page 196) . . . . . 3 hours

OR

PolS 34-201 Missouri Politics (page 196) See note below . . . . . 1 hour

**NOTE:** PolS 34-201 is the required course for students who have credit for an American Government course which did not include a study of the Missouri Constitution. (Students successfully completing PolS 34-203 State and Local Government at Northwest may have PolS 34-201 Missouri Politics waived. See chairperson of the Department of History, Humanities, Philosophy and Political Science for approval of this waiver.)

**HISTORY .....3 hours**

Required Course:

Hist 33-155 America—A Historical Survey (page 192) ..... 3 hours

**LIFE AND PHYSICAL SCIENCES .....8 hours**

Required: One course from each area.

**Life Sciences**

Bio 04-102/103 General Biology/Lab (page 111)..... 4 hours

Bio 04-112/113 General Botany/Lab (page 112)..... 4 hours

Bio 04-114/115 General Zoology/Lab (page 112) ..... 4 hours

Ag 03-130 Plant Science (page 252)..... 4 hours

**Physical Sciences**

Chem 24-112/113 General Chemistry/Lab (page 129) ..... 4 hours

Chem 24-114/115 General Chemistry I/Lab (page 129)..... 4 hours

Geol 27-110/111 General Geology/Lab (page 179)..... 4 hours

Geol 27-114/115 General Earth Science/Lab (page 179) ..... 4 hours

Phys 25-110/111 General Physics I/Lab (page 132)..... 4 hours

Phys 25-112/113 General Physics II/Lab (page 133)..... 4 hours

Phys 25-120/121 Fundamentals of Classical Physics I/Lab (page 133) .. 5 hours

Phys Sci 40-102/103 The Physical Sciences /Lab (page 132) ..... 4 hours

Phys Sci 40-122/123 Descriptive Astronomy/Lab (page 132)..... 4 hours

**HUMANITIES AND FINE ARTS .....9 hours**

Required: One course from each area.

**Literature**

Eng 10-220 Introduction to Literature (page 162)..... 3 hours

**Humanities/Philosophy**Hum 26-102 Western Civilization I: The Ancient World  
to 1500 (page 194) ..... 3 hours

Hum 26-103 Western Civilization II: 1500 to the Present (page 194).... 3 hours

Hum 26-104 The Humanities, The Eastern World (page 194)..... 3 hours

Phil 39-171 Introduction to Philosophy (page 195) ..... 3 hours

Phil 39-274 Introduction to Ethics (page 195) ..... 3 hours

Com 29-235 Introduction to Classical Rhetoric (page 152) ..... 3 hours

PolS 34-105 The African World (page 196) ..... 3 hours

**Fine Arts**

Art 13-102 Art Appreciation (page 91)..... 3 hours

Art 13-110 Survey of Art (page 92)..... 3 hours

Mus 19-201 The Enjoyment of Music (page 218) ..... 3 hours

PE 22-262 History of Dance (page 336)..... 3 hours

Th 43-101 Theatre Appreciation (page 153) ..... 3 hours

**SOCIAL AND BEHAVIORAL SCIENCES .....6 hours**

Required: One course from each area.

Education degrees require Psych 08-303 Educational Psychology.

**Social Sciences**

- Econ 52-130 Survey of Economics (page 238) . . . . . 3 hours
- Econ 52-150 General Economics I (page 238) . . . . . 3 hours
- Geog 32-101 Introduction to Geography (page 176) . . . . . 3 hours
- Soc 35-101 General Sociology (page 355) . . . . . 3 hours
- Soc 35-108 General Anthropology (page 357) . . . . . 3 hours
- Ag 03-102 Introductory Agricultural Economics (page 250) . . . . . 3 hours

**Behavioral Sciences**

- Psych 08-103 General Psychology (page 352) . . . . . 3 hours
- Psych 08-303 Educational Psychology (page 353) . . . . . 3 hours

**TOTAL GENERAL EDUCATION REQUIREMENTS .....42 HOURS**



# 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>B.A. Degree Requirements</b>	<b>Semester Hours</b>
General Education Requirements (See pages 69-72)	42
Specific Requirement	
One Modern Language	9
Major or Major/Minor Requirements	54-60
Electives and Other Departmental Requirements	13-19
<b>TOTAL MINIMUM ACADEMIC</b>	<b>124</b>

## 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, sculpture, or graphic design).

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

<b>B.F.A. Degree Requirements</b>	<b>Semester Hours</b>
General Education Requirements (See pages 69-72)	42
Comprehensive Major in Art	72
Electives and Other Departmental Requirements	10
<b>TOTAL MINIMUM ACADEMIC</b>	<b>124</b>

## 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>B.S. Degree Requirements</b>	<b>Semester Hours</b>
General Education Requirements (See pages 69-72)	42
Major or Major/Minor Requirements	55-60
Electives and Other Departmental Requirements	22-27
<b>TOTAL MINIMUM ACADEMIC</b>	<b>124</b>

## Bachelor of Science in Education

Completion of this curriculum, other University requirements, and an overall grade point average of 2.50 on a 4.00 scale qualifies the student to receive a Bachelor of Science in Education degree.

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 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 in the matrix on page 76.

<b>Program</b>	<b>Page Number</b>
<b>Elementary</b> . . . . .	<b>296</b>
Art (Certifies Grades K-9)	
Elementary (Certifies Grades 1-6)	
Early Childhood (Certifies Birth - Grade 3)	
Early Childhood Special Education (Certifies Birth-Grade 3)	
Physical Education (Certifies Grades K-9)	
Spanish (Certifies Grades K-9)	
<b>Middle School</b> . . . . .	<b>300</b>
Agriculture (Certifies Grades 5-9)	
Business Education (Certifies Grades 5-9)	
Drama/Speech (Certifies Grades 5-9)	
Family Life Education (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)	
<b>Special Education</b> . . . . .	<b>302</b>
Cross Categorical (Certifies Grades K-12)	
<b>Secondary</b> . . . . .	<b>305</b>
Agriculture (Certifies Grades 9-12)	
Business (Certifies Grades 9-12)	
Driver Education (Certifies Grades 9-12)	
English (Certifies Grades 9-12)	
Family and Consumer Sciences (Certifies Grades B-12)	
Health (Certifies Grades 9-12)	
Mathematics (Certifies Grades 9-12)	
Science: Biology, Chemistry, Earth Science or Physics (Four separate programs) (Certifies Grades 9-12)	
Social Science (Certifies Grades 9-12)	
Speech/Theatre (Certifies Grades 9-12)	
Unified Science: Biology, Chemistry, Earth Science or Physics (Four separate programs) (Certifies Grades 9-12)	
<b>Elementary/Secondary</b> . . . . .	<b>307</b>
Art (Certifies Grades K-12)	
French (Certifies Grades K-12)	
Instrumental Music (Certifies Grades K-12)	
Physical Education (Certifies Grades K-12)	
Spanish (Certifies Grades K-12)	
Vocal Music (Certifies Grades K-12)	

Information regarding admittance to teacher education, advanced standing requirements, directed teaching, and certification is located within the College of Education and Human Services section of this catalog on pages 289-295.

<b>Bachelor of Science in Education Degree Requirements</b>		<b>Elementary</b>	<b>Middle School</b>	<b>Special Education</b>	<b>Secondary</b>	<b>Elementary/ Secondary</b>
<b>Foundations for Teaching</b>	RdSp 66-301	●		●		
	RdSp 66-371	●	●	●	●	●
	Psy 08-312	◆		■		
	Psy 08-333	☆		■		
	Psy 08-317		●			
	Psy 08-322			■	●	●
	Psy 08-303	●	●	●	●	●
	Ed 61-461	●	●	●	●	●
	Ed 61-462				●	●
SecEd 65-570		●				
<b>Teaching Methods</b>	EEd 63-216	●		●		
	PE 22-238	●		●		
	RdSp 66-356	●	●	●		
	RdSp 66-380	●		●		
	RdSp 66-353		●	▲	●	●
	Art 13-380	●				
	Mus 19-380	●				
	Math 17-471	●		●		
	SciEd 28-380	●		●		
	EEd 63-410	●		●		
	EEd 63-420	●				
	SecEd 65-520		●	✖	●	●
	SecEd 65-521				●	●
	SecEd 65-430		●			
	SecEd 65-511		●			
Subject Area Methods		●	●	●	●	
<b>Clinical Experiences</b>	EEd 63-211	●		I		
	EEd 63-407	●		●		
	RdSp 66-456	●		●		
	RdSp 66-444			●		
	SecEd 65-260 or PE 22-260*			I	●	●
	SecEd 65-262		●	I		
	SecEd 65-360 or PE 22-360*			I	●	●
	SecEd 65-362		●	I		
	EEd 63-490	●				
	RdSp 66-497			●		
	RdSp 66-498			●		
	Ed 61-490					●
	SecEd 65-490				●	
Ed 65-491		●				
<b>Computer App.</b>	CSIS 44-130	●	●	●	●	●
<b>Multiculturalism</b>	Ed 61-569	★	★	➤	➤	➤
<b>In addition, General Education and Major or Major/Minor Requirements must be fulfilled.</b>						

**KEY**

- required
- ◆ or 08-333
- ☆ or 08-312
- 08-333 or 312 and 322
- ▲ or 66-553
- ✖ 66-540
- I 63-211 or 65-260 and 360 or 65-262 and 362
- ★ 61-569 and 14-100 level course
- 61-569 or 14-100 level course
- \* 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 (formerly the Medical Technology 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 having 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.

Application to the clinical year is usually made in the fall of the junior year. 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. Minimum grade point average ranges from 2.00 to 2.50 for both cumulative GPA and science courses.

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 Office of Scholarships and Financial Assistance.

### **B.S. in Clinical Laboratory Sciences**

#### **Degree Requirements**

	<b>Semester Hours</b>
General Education Requirements (See pages 69-72)	42
Science	46
Electives and Other Departmental Requirements	6
Clinical Laboratory Sciences Courses at Approved Teaching Hospital or Clinic*	30
<b>TOTAL MINIMUM ACADEMIC</b>	<b>124</b>

\*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 pre-clinical coursework is completed provided all other criteria are satisfied.

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

**Des Moines, Iowa**

Mercy Medical Center—Dr. Vijaya L. Dhanwada, Medical Director;  
Kyla Deibler, MS, MT (ASCP), CLS (NCA), Program Director.

**Kansas City, Mo.**

St. Luke's Hospital of Kansas City—Dr. Marjorie Zuker, Medical Administrator;  
Jane Rachel, MA, MT (ASCP), Program Director.

**North Kansas City, Mo.**

North Kansas City Memorial Hospital—Dr. Mark Stivers, Medical Director;  
Jean E. Cooper, MPA, MT (ASCP), Program Director.

**Bachelor of Science in Clinical Laboratory Sciences**

Required Courses	Semester Hours
Chem 24-114/115 General Chemistry I and Laboratory	4
Bio 04-102/103 General Biology and Laboratory	4
Bio 04-140 General Microbiology	4
Bio 04-310 Cell Biology (4) OR	
Bio 04-440 Molecular Genetics (3) OR	
Math 17-114 General Statistics (3)	3-4
Bio 04-438 Human Physiology	4
Bio 04-350 Genetics	3
Bio 04-444 Immunology	4
<b>Total Hours</b>	<b>26-27</b>
<b>Clinical Laboratory Sciences</b>	<b>30</b>
In conjunction with approved hospitals and medical centers.	
<b>Collateral Courses</b>	
Chem 24-116/117 General Chemistry II and Laboratory	5
Chem 24-322/323 Quantitative Analysis and Laboratory	5
Chem 24-342/343 Organic Chemistry I and Laboratory	5
Chem 24-362/363 Elementary Biochemistry and Laboratory	4
<b>Directed General Education Courses</b>	
The following courses are to be taken to fulfill General Education requirements:	
Math 17-118 College Algebra	3
Bio 04-114/115 General Zoology and Laboratory	4
Phys 25-112/113 General Physics II and Laboratory	4
<b>General Education Requirements (less directed General Education courses)</b>	<b>31</b>
<b>Electives and Other Departmental Requirements</b>	<b>6-7</b>
<b>Total Degree Requirements</b>	<b>124</b>

## Bachelor of Technology

The curriculum leading to the Bachelor of Technology degree is individually developed for each candidate and provides for the transfer of non-college-parallel vocational or technical coursework from a regionally-accredited college. The curriculum is designed to provide the additional general and specific education necessary for technicians to develop themselves more broadly and to become more versatile.

All candidates for the degree must complete 30 hours of general studies which must include at least six hours of English and speech, as well as coursework in American history and the U.S. and Missouri Constitutions, with the remainder of the hours from any of these areas:

- Humanities/Fine Arts
- Math/Science
- Languages
- Social Science

The program of studies for those candidates who have completed a one-year program will be developed within the following framework:

- General studies—30 hours
- Transferred major (technical)—minimum 24 hours
- Residence major—minimum 24 hours
- Residence minor—minimum 15 hours
- Directed electives to total 124 hours

The program of studies for those candidates who have completed a two-year program will be developed within the following framework:

- General studies—30 hours
- Transfer major (technical)—minimum 45 hours
- Residence major—minimum 24 hours OR
- Two residence minors—minimum 15 hours each
- Directed electives to total 124 hours

Advisors:

- Agriculture—Jamie Patton
- Computer Science—Carol Spradling
- Child Care Administration, Food Service, Merchandising—Frances Shipley
- Geographical Information Systems—Gregory Haddock
- Geography—Theodore Goudge
- Management Information Systems—Nancy Zeliff
- Marketing/Management—Chi Lo Lim
- Office Information Systems—Judy Clark

# Academic Structure

## **COLLEGE OF ARTS AND SCIENCES**

- Department of Art
- Department of Biological Sciences
- Department of Chemistry and Physics
- Department of Communication, Theatre and Languages
- Department of English
- Department of Geology and Geography
- Department of History, Humanities, Philosophy and Political Science
- Department of Mathematics and Statistics
- Department of Military Science
- Department of Music
- English as a Second Language Program
- Honors Program

## **BOOTH COLLEGE OF BUSINESS AND PROFESSIONAL STUDIES**

- Department of Accounting, Economics and Finance
- Department of Agriculture
- Department of Computer Science/Information Systems
- Department of Marketing and Management
- Department of Mass Communication

## **COLLEGE OF EDUCATION AND HUMAN SERVICES**

- Department of Curriculum and Instruction
- Department of Educational Leadership
- Department of Family and Consumer Sciences
- Department of Health, Physical Education, Recreation and Dance
- Department of Psychology, Sociology and Counseling



# The College of Arts and Sciences

*Dr. Charles A. McAdams, Dean*

- Department of Art
- Department of Biological Sciences
- Department of Chemistry and Physics
- Department of Communication, Theatre and Languages
- Department of English
- Department of Geology and Geography
- Department of History, Humanities, Philosophy and Political Science
- Department of Mathematics and Statistics
- Department of Military Science
- Department of Music
- English as a Second Language Program
- Honors Program

# College of Arts and Sciences

**Dean: Charles A. McAdams**

The College of Arts and Sciences includes the Departments of Art; Biological Sciences; Chemistry and Physics; Communication, Theatre and Languages; English; Geology and Geography; History, Humanities, Philosophy and Political Science; Mathematics and Statistics; Military Science; Music; the English as a Second Language Program; and the Honors Program.

The College of Arts and Sciences provides students basic communication skills, problem solving and critical thinking skills; 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 recognize the potential for personal growth.

General education and service courses offered by the college assure an understanding of the role of the scientific process and problem solving in daily living, and awakens 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 thereby broadening the base of educational experiences to make students better contributors to society and assist them in leading fuller 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 visions of 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 short study tour, 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. 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 Australlearn, International Student Exchange Program (ISEP), Maastricht Program, Magellan Exchange, Mexico Exchange, Missouri-London Program, Korea Exchange, and faculty-led study programs.

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## Course Descriptions

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### College of Arts and Sciences / 71

#### **101 Freshman Seminar (1 hour)**

Freshman Seminar is designed to introduce students to Northwest. Topics of exploration will include 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, taking advantage of cultural and extracurricular events, and assuming responsibility for one's own University experience. (F)

#### **301 British Life and Culture (3 hours)**

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)

### International Study / 80

#### **299 International Study-Study Abroad ("Country") (3-15 credit hours)**

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.

# Department of Art / 13

**Chairperson:** Kim Spradling

**Faculty:** Paul Falcone, Laura Kukkee, Philip Laber, Armin Muhsam, Craig Warner, Glenn Williams

## Statement of Mission

The four degree programs of the Department of Art 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.

The Department of Art 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. In its varied course offerings, the Department of Art plays a large part in fulfilling the University's Educational Key Quality Indicators and Core Values.

The Department 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 including the teaching of art, (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 of the Department of Art, 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

The Department of Art participates in four degree programs through its offering of four comprehensive majors and two minors.

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, sculpture or graphic design and involve advanced study in both a class format and individualized work.

The comprehensive specialization in graphic design provides introductory and advanced study in graphic design, drawing, painting, electronic media, and photography and the opportunity to select from these areas for additional advanced work. The student may take electives outside art in such fields as marketing and mass communication.

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 departments 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.

## DEPARTMENT POLICIES

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 Art 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 enrolled in art classes regardless of their major areas of study.

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

The Department of Art does not accept Advanced Placement or Dual Enrollment credit for any of its degree programs, majors or minors. Credit by examination through the department is not available for any course in the department. The Department 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 13-321, 333 and 395) until Art Advanced Standing has been granted. Art minors must complete the art core sequence appropriate to their degree specialization 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 13-120, 191, 192, complete Art 13-161, 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) must have completed Art 13-110 Survey of Art; (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 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 native students and must apply for Art Advanced Standing at the time of registration. A review of the student’s portfolio of work occurs in the first week of their first trimester. 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 13-321, 333, and 395) 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.

### **Advanced Standing Core–Interactive Digital Media-Visual Imaging:**

Art 13-120 Drawing	3
Art 13-191 Introduction to Design	3
Art 13-207 Digital Photography	3
Art 13-221 Life Drawing	3
Art 13-240 Painting	3

Art 13-292 Introduction to Creative Electronic Imaging	3
Art 13-294 Letter Forms and Graphic Design	3
<b>Total Hours</b>	<b>21</b>

Students who have completed the requirements outlined in the paragraph 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 native students. 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 Art 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 Art chairperson. The purpose of this review is to provide an opportunity for advisement, appropriate to the background of the student, in meeting Department of Art requirements for Advanced Standing and to determine which transfer credits will be accepted by the Department of Art 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 during the student's final trimester and before a senior exhibit may be installed. Senior review requires an attendance of 70% or more of visiting artist lectures.

### **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 13-403 Senior Exhibition. Senior exhibitions are held during the fall and spring trimesters only.

### **Core Requirements for Majors in Art**

	<b>Semester Hours</b>
Art 13-120 Drawing	3
Art 13-161 Ceramics	3
Art 13-191 Introduction to Design	3
Art 13-192 Three-Dimensional Design	3
Art 13-221 Life Drawing	3
Art 13-240 Painting	3
Art 13-270 Sculpture	3
Art 13-292 Introduction to Creative Electronic Imaging	3
*Art 13-333 Printmaking	3
Art 13-402 Senior Seminar	1
<b>Total Hours</b>	<b>28</b>

\*Students seeking a graphic design specialization must take Art 13-294 Letter Forms and Graphic Design prior to Advanced Standing and Art 13-333 Printmaking at a later time.

## MAJORS

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

Required Courses	Semester Hours
Art Major Core Requirements	28
Art 13-201 Creative Photography	3
Art 13-321 Advanced Drawing	3
Art 13-403 Senior Exhibition	1
Art History Requirements: Art 13-110 Survey of Art plus four of the following courses (12 hours): Art 13-311, 313, 315, 316, 317 and 318	15
Studio specialization requirements: A minimum of 12 hours in one studio area at or above the 300 level and at least 10 hours in supporting electives of 300 level or above.	22
Graphic Design Requirements: Art 13-294, 394, 396, 398, 492, 497	
Approved electives as needed to total 72 hours in the major (Art 13-180, 380, 382, 389, 480 are not approved art electives for this degree.)	

### Comprehensive Major in Art Education, 55 hours: B.S.Ed.—No Minor Required

Required Courses	Semester Hours
Art Major Core Requirements	28
Art 13-180 Principles of Art Education	3
Art 13-280 Visual Art Concepts	3
Art 13-382 Methods in Elementary Art	3
Art 13-395 Design with Fibers	3
Art 13-315 Nineteenth and Early Twentieth Century Art	3
Art 13-317 Twentieth Century Art	3
Approved art electives as needed to total 55 hours in the major	9
Art 13-480 must be completed as part of the Professional Education requirements.	

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

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

Required Courses	Semester Hours
Art Major Core Requirements	28
Art History: choice of courses	15
Approved art electives as needed to total 54 hours in art	

### Comprehensive Major in Interactive Digital Media, 61 hours: B.S.—No Minor Required

#### Visual Imaging Concentration

This is an interdisciplinary major in conjunction with Art, Computer Science/Information Systems and Mass Communication. Three concentrations are available for this major: Computer Science Programming (Computer Science/Information Systems), New Media (Mass Communication), and Visual Imaging (Art).

Required Core Courses	Semester Hours
Art 13-191 Introduction to Design	3
Art 13-207 Digital Photography	3



Art 13-292 Introduction to Creative Electronic Imaging	3
Art 13-294 Letterforms and Graphic Design	3
MC 20-120 Introduction to Mass Media	3
MC 20-243 Media Design I	3
MC 20-303 Introduction to Web Publishing	3
MC 20-314 Communication Law	3
CSIS 44-143 Script Programming I	3
CSIS 44-333 Multimedia and Web Development	3
CSIS 44-335 Script Programming II	3
Mkt 55-330 Principles of Marketing	3
<b>Total Core Requirements</b>	<b>36</b>

### Visual Imaging Concentration Required Courses

Art 13-120 Drawing	3
Art 13-221 Life Drawing	3
Art 13-240 Painting	3
Art 13-394 Advanced Creative Electronic Imaging*	3
Art 13-396 Advanced Graphic Design*	3
Art 13-398 Computer Assisted Graphic Design*	3
Art 13-415 Interactive Digital Media Seminar*	1
Art 13-497 Creative Digital Animation*	3
Art 13-592 Graphic Design Internship*	3
<b>Total Concentration Hours</b>	<b>25</b>

\*Must have completed all Advanced Standing Requirements prior to enrolling in advanced courses (300-level and above).

**Concentration in New Media – see the Mass Communication Department**

**Concentration in Computer Science Programming – see the Computer Science/ Information Systems Department**

## MINORS

### Minor in Art, 24 hours

Required Courses	Semester Hours
Art 13-120 Drawing	3
Art 13-191 Introduction to Design OR	
Art 13-192 Three-Dimensional Design	3
Art 13-110 Survey of Art (Art 13-102 Art Appreciation may be substituted if previously taken)	3
Art History: choice of courses (300-level)	3
Art History or Studio choices by advisement	12

### Minor in Elementary Art Education, 24 hours: B.S.Ed.–Certifiable– See Professional Education Requirements

Required Courses	Semester Hours
Art 13-120 Drawing	3
Art 13-161 Ceramics	3
Art 13-180 Principles of Art Education	3
Art 13-191 Introduction to Design	3

Art 13-192 Three-Dimensional Design	3
Art 13-240 Painting	3
Art 13-382 Methods in Elementary Art	3
Art 13-395 Design with Fibers	3
Art electives approved by the minor advisor as needed to total 24 hours in art selected from either printmaking or photography.	

If Art 13-102 Art Appreciation or Art 13-110 Survey of Art is not taken to meet General Education 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.

### **Minor in Interactive Digital Media, 24 hours**

This is an interdisciplinary minor in conjunction with Art, Computer Science/Information Systems and Mass Communication.

This minor requires CSIS 44-130 Computers and Information Technology as a prerequisite course as required by course descriptions.

<b>Required Courses</b>	<b>Semester Hours</b>
Art 13-191 Introduction to Design	3
Art 13-292 Introduction to Creative Electronic Imaging	3
MC 20-243 Media Design I	3
MC 20-303 Introduction to Web Publishing	3
CSIS 44-143 Script Programming I	3
CSIS 44-333 Multimedia and Web Development	3
<b>Choose 6 hours from electives:</b>	<b>6</b>
Art 13-120 Drawing (3)	
Art 13-207 Digital Photography (3)	
MC 20-301 Multimedia Audio/Video Production (3)	
MC 20-334 Multimedia Production (3)	
CSIS 44-141 Computer Programming I (3)	
CSIS 44-335 Script Programming II (3)	
<b>Total Minor Requirements</b>	<b>24</b>

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## Course Descriptions

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### Art / 13

#### **102 Art Appreciation (3 hours)**

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)

#### **200 Special Offerings (1-4 hours)**

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.

#### **299 Individual Problems in Studio (2 hours)**

Individual direction using previously learned skills and techniques. Prerequisite: Permission of instructor. May be repeated once for additional credit. (F, S)

#### **316 International Studies in Art History (3 hours)**

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 13-110 (Alt. summers)

#### **399 International Studies in Studio (3 hours)**

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 13-110 and 13-221 or 13-201 or 13-333. (Alt. summers)

#### **400 Special Offerings (1-4 hours)**

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.

#### **402 Senior Seminar (1 hour)**

A seminar dealing with the problems of the art teacher, artists, and those active in digital media. 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)

#### **403 Senior Exhibition (1 hour)**

An exhibition to include works produced expressly for the exhibition and outstanding works previously done. Prerequisite: Art 13-402. (F, S)

#### **415 Interactive Digital Media Seminar (1 hour)**

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)

#### **500 Special Offerings (1-4 hours)**

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.

### ART EDUCATION

#### **180 Principles of Art Education (3 hours)**

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)

#### **280 Visual Art Concepts (3 hours)**

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)

**380 Art in the Elementary School (2 hours)**

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 13-102 or Mus 19-201. (F, S)

**382 Methods in Elementary Art (3 hours)**

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 13-180. (S)

**386 Papermaking (3 hours)**

Processes and techniques for creating two-dimensional and three-dimensional forms using handmade paper. Prerequisite: Advanced standing for art majors. (S)

**389 Individual Study in Art Education (2 hours)**

Individual investigations in art education. Prerequisites: Art 13-180 and permission of instructor. May be repeated once for additional credit. (S)

**395 Design With Fibers (3 hours)**

Two- and three-dimensional design for fiber techniques with emphasis placed on the design process. (F)

**480 Methods in Secondary School Art (2 hours)**

Specific methods used in teaching art and in curriculum planning for secondary school levels. Prerequisites: Art 13-180, 280, 382 and admission into the Professional Education Program. (F)

**495 Advanced Fibers (3 hours)**

Two- and three-dimensional design for advanced fiber techniques with emphasis placed on the design process and aesthetic quality. Prerequisite: Art 13-395. (F, S)

**582 Organization and Supervision of the Art Program (2 hours)**

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 13-180, 382 and 480. (SS, alt. years)

**584 Art Activities in the Elementary School (2 hours)**

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 13-382. (SS, alt. years)

**588 Art in the Senior High School (2 hours)**

Studies designed to present the secondary art teacher with an expanded conceptual and practical framework for implementing curricular concerns in studio, art appreciation, art history and art criticism. Prerequisite: Art 13-480. (SS, alt. years)

**ART HISTORY****110 Survey of Art (3 hours)**

A topical survey of outstanding works from major periods of Western art with emphasis placed on the purposes of art and the roles of artists. (S)

**311 Ancient and Medieval Art (3 hours)**

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 13-110. (F, odd years)

**313 Renaissance and Baroque Art (3 hours)**

The history of architecture, painting, sculpture and related arts in Europe from the last of the 14th century through the 18th century. Prerequisite: Art 13-110. (S, odd years)

**315 Nineteenth and Early Twentieth Century Art (3 hours)**

A study of the major visual arts in Europe from the latter 18th century to the second decade of the 20th century. Prerequisite: Art 13-110. (S, even years)

**317 Twentieth Century Art (3 hours)**

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 13-110 and 315. (F, even years)

**318 Far Eastern Art (3 hours)**

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 13-110. (F, even years)

**CERAMICS****161 Ceramics (3 hours)**

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)

**261 Wheel Throwing and Functional Form (3 hours)**

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 13-161. (S)

**360 Advanced Ceramics (3 hours)**

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 13-161, 192, 261, advanced standing and permission of instructor. (S)

**369 Ceramics Studio (2-6 hours)**

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 13-360 and permission of instructor. May be repeated for a total of 15 semester hours. (F, S)

**569 Ceramics Processes (2-6 hours)**

Advanced studio work providing students the opportunity to further develop work in ceramics. Study in all phases of studio practice. May be repeated for a total of six semester hours. Prerequisite: Permission of instructor. (F, S)

**DRAWING****120 Drawing (3 hours)**

An introduction to and the application of basic principles of art in drawing using a variety of media, techniques and subjects. (F, S)

**221 Life Drawing (3 hours)**

Application of the fundamentals of drawing to develop an understanding of creative composition using the human figure. Prerequisite: Art 13-120 (art majors must complete with at least a grade of "C"). (F, S)

**321 Advanced Drawing (3 hours)**

A continued study of the human figure, other subjects and composition. More emphasis given to independent decision making. Prerequisite: Art 13-221. (F, S)

**429 Drawing Studio (2-6 hours)**

Advanced exploration of drawing media, techniques, and concepts from representation to abstraction. Prerequisites: Art 13-321, advanced standing and permission of instructor. May be repeated for a total of 15 semester hours. (F, S)

**529 Drawing Processes (2-6 hours)**

Advanced studio work providing students with opportunities for extended studies in various media and directions. May be repeated for a total of six semester hours. Prerequisite: Permission of instructor. (F, S)

**GRAPHIC DESIGN****191 Introduction to Design (3 hours)**

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)

**292 Introduction to Creative Electronic Imaging (3 hours)**

An introduction to electronic media for creative imaging using computers, scanners, digital photography and video. Appropriate hardware and software exploration for fine art purposes. Prerequisites: Art 13-120 and 191 (IDM majors may take concurrently with Art 13-191 and are not required to have Art 13-120 as a prerequisite; art majors must complete prerequisites with at least a grade of "C"). (F, S)

**294 Letter Forms and Graphic Design (3 hours)**

Type, letter forms and their creative use in visual communications, including the development of comprehensive advertising layouts in black and white. Prerequisite: Art 13-191 (art majors must complete prerequisite with at least a grade of "C"). (F, S)

**394 Advanced Creative Electronic Imaging (3 hours)**

Advanced principles and procedures for creative digital imaging using computers, scanners, digital photography, and video. Prerequisites: Art 13-292 and advanced standing. (F)

**396 Advanced Graphic Design (3 hours)**

The creative design of color comprehensive layouts using drawing, lettering, and type. Professional procedures and standards of quality are emphasized. Prerequisites: Art 13-120, 294 and advanced standing. (F)

**398 Computer Assisted Graphic Design (3 hours)**

Principles of creative graphic design applied in a computer-assisted context using desktop publishing systems and related software. Projects encourage development of creative thinking and problem solving, both aesthetically and technically. Prerequisites: Art 13-120 and 396. (S)

**492 Advertising Design (3 hours)**

Principles of graphic design applied to various commercial visual communications, i.e., magazine and newspaper display, packaging, billboards, posters, book covers, etc. Prerequisites: Art 13-221, 396, 398 and advanced standing. (S, even years)

**497 Creative Digital Animation (3 hours)**

Principles and procedures of creative digital animation. Prerequisite: Art 13-394. (S)

**499 Design Studio (2-6 hours)**

Exploration of two- and three-dimensional graphic design processes using a variety of non-traditional materials. Prerequisite: Art 13-396 and permission of instructor. May be repeated for a total of 15 semester hours. (F, S)

**592 Graphic Design Internship (2-6 hours)**

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 major with 3.00 GPA in graphic design or IDM-VI major. (F, S, SS)

**599 Design Processes (2-6 hours)**

Advanced professional level work in various techniques and directions in graphic design and/or

fiber arts. May be repeated for a total of six semester hours. Prerequisite: Art 13-499 (graphic design) or 13-495 (fiber arts), and permission of instructor. (F, S)

**PAINTING****240 Painting (3 hours)**

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 13-120 and 191 (art majors must complete prerequisites with at least a grade of "C"). (F, S)

**340 Advanced Painting (3 hours)**

Emphasis on life study and exposure to alternative forms and media combined with an introduction to the conceptual side of painting. Prerequisites: Art 13-221, 240 and advanced standing. (F, S)

**343 Watercolor Painting (3 hours)**

An introduction to both transparent and opaque watercolor with emphasis on their unique qualities and expressive potential. Prerequisites: Art 13-240 and advanced standing. (F)

**449 Painting Studio (2-6 hours)**

Advanced exploration of painting media, techniques and concepts, from representation to abstraction. Prerequisites: Art 13-340, advanced standing, and permission of instructor. May be repeated for a total of 15 semester hours. (F, S)

**549 Painting Processes (2-6 hours)**

Advanced studio work providing students with opportunities for extended study in various media, and directions. May be repeated for a total of six semester hours. Prerequisite: Permission of instructor. (F, S)

**PHOTOGRAPHY****201 Creative Photography (3 hours)**

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)

**207 Digital Photography (3 hours)**

An introductory creative photography course for students interested in digital media, and for students in the interactive digital media major. Students will

explore contemporary applications of visual space and plastic form through the medium of electronic photography. Not for art majors. (SS)

**303 Advanced Creative Photography (3 hours)**

A continuance of Art 13-201. 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 13-201 and advanced standing. (F, S)

**305 Color and Digital Photography (3 hours)**

An exploratory continuation of creative photography with an introduction to and emphasis on color photography using digital processes. Photography as an art and expressive medium will be stressed. Prerequisites: Art 13-303 and advanced standing. (S)

**309 Photography Studio (2-6 hours)**

Directed study and exploration of black and white, color, non-traditional and/or digital photography. Prerequisites: Art 13-303 and permission of instructor. May be repeated for a total of 15 semester hours. (F, S)

**509 Photography Processes (2-6 hours)**

Advanced directed studies in various techniques in black and white or digital photography. May be repeated for a total of six semester hours. Prerequisite: Permission of instructor. (F, S)

**PRINTMAKING**

**333 Printmaking (3 hours)**

An introduction to traditional and contemporary pursuits of intaglio printmaking including color monotype, etching and engraving processes. Prerequisites: Art 13-120 and 221. (F, S)

**439 Printmaking Studio (2-6 hours)**

Directed study in traditional or experimental techniques in selected media. Prerequisites: Art 13-333, advanced standing and permission of instructor. May be repeated for a total of 15 semester hours. (F)

**539 Printmaking Processes (2-6 hours)**

Advanced directed studies in various print media, techniques and directions. May be repeated for a total of six semester hours. Prerequisite: Permission of instructor. (F)

**SCULPTURE/THREE-DIMENSIONAL DESIGN**

**192 Three-Dimensional Design (3 hours)**

An introduction to the fundamentals of three-dimensional design explored through assigned problems and a variety of construction methods. Prerequisites: Art 13-120 and 191 (completed with at least a grade of "C" for art majors). (F, S)

**270 Sculpture (3 hours)**

An introduction to the basic concepts and techniques utilized in the production of sculpture, including additive/subtractive methods, welding, and site installation. Prerequisite: Art 13-192 (completed with at least a grade of "C" for art majors). (F, S)

**470 Advanced Sculpture (3 hours)**

An introduction to concepts and techniques beyond those explored in Art 13-270. Emphasis will be on the execution of ideas and development of the student's artistic direction. Prerequisites: Art 13-270 and advanced standing. (S)

**479 Sculpture Studio (2-6 hours)**

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 13-470 and permission of instructor. May be repeated for a total of 15 semester hours. (F, S)

**579 Sculpture Processes (2-6 hours)**

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. May be repeated for a total of six semester hours. Prerequisite: Permission of instructor. (F, S)

# Department of Biological Sciences / 04

**Chairperson:** Gregg Dieringer

**Faculty:** David Easterla, Suzanne Frucht, Kurt Haberyan, Peter Kondrashov, Phillip Lucido, Janette Padgitt, Karen Schaffer, Jeffrey Thornsberry

## Statement of Mission

The department offers coursework leading to a wide spectrum of majors and minors. These majors include biology, wildlife ecology and conservation, medical technology, pre-professional zoology and secondary education. In addition, the department offers minors in education and biology for the Bachelor of Science degree and biology for the Bachelor of Arts degree. Graduates of the programs are routinely accepted into professional schools, graduate schools and employment in positions compatible with their fields of study.

The department offers quality undergraduate educational opportunities that provide students with a rich collegiate experience and the technical and intellectual skills necessary for competence in their chosen fields. Given the continuous technological advances being made, the department provides students with exposure to many of the scientifically-based technological changes. The traditional classroom setting is complemented by laboratory classes and practical field experiences, which enable a student to put into immediate practice those concepts and understandings gained in the classroom.

The department stresses the importance of critical thinking to its students and emphasizes the ability of students to logically collect, collate, analyze and interpret information. These abilities, on the part of the student, further strengthen the concept of the scientific theory. Students are encouraged to develop their methods of communication through the written and spoken word, the use of available technology and through visual means.

The department encourages undergraduates to become active in undergraduate research projects and thereby become creators of knowledge in addition to consumers of knowledge.

The department also offers general education courses to University students. These courses provide an understanding of the role of the scientific thought processes in daily living. These courses also apply and expand the current knowledge of the students, as well as broaden their educational experiences to enable students to make logical, critical and intelligent decisions concerning their lives.

## DEGREE PROGRAMS

The Department of Biological Sciences offers a wide range of programs leading to the Bachelor of Arts or Bachelor of Science degrees in the areas of biology, cell biology, environmental science, ecology, biology/psychology, molecular biology, botany, zoology, pre-professional zoology, and wildlife ecology and conservation. The department also offers the biology endorsement of the Unified Science Major leading to a Bachelor of Science in Education degree. A Bachelor of Science in Clinical Laboratory Sciences (formerly Medical Technology) is offered through



the department in cooperation with approved schools of clinical laboratory sciences at several medical centers. The affiliated medical centers are accredited through the National Accreditation Agency for Clinical Laboratory Sciences (NAACLS). Graduate programs leading to the Master of Science degree are also provided. See the *Graduate Catalog* for details.

In addition to the various degree programs, the Department of Biological Sciences provides guidance and information in many areas of the life sciences. Specific non-degree, pre-professional programs for physical therapy, occupational therapy, respiratory therapy, physician's assistant, pharmacy, dental hygiene and others are offered. In cooperation with the Melvin and Valorie Booth College of Business and Professional Studies, the department offers a two-year program for medical administrative assistants.

Biology minor programs are offered for the B.A., B.S., and B.S.Ed. degrees. A biology minor provides a basic background for many applied and non-science programs, especially for majors in psychology, family and consumer sciences, horticulture, agronomy, animal science, health education and geography. A biology major or minor in combination with chemistry, physics, geology, or mathematical sciences will provide a strong background for graduate work in biochemistry, biophysics, paleontology, taxonomy, biometrics, ecology and other basic science fields.

### **Test-Out Policy**

The Department of Biological Sciences does not offer test-out for any of its courses.

### **Advanced Standing Requirement**

A student applies for advanced standing in the Department of Biological Sciences after the completion of 45 semester hours. In addition, all Biology majors and minors must complete the following classes with a "C" grade or better: Bio 04-112/113 General Botany and Laboratory and Bio 04-114/115 General Zoology and Laboratory. All Biology majors and minors must also earn a grade of "C" or better in all departmentally-offered biology course prerequisites prior to moving to the next higher level course.

The department expects all majors to earn a score of 50<sup>th</sup> percentile or better on the Academic Profile Assessment exam that is administered the junior year. Students not receiving the minimum score need to retake the Academic Profile exam until the minimum score is achieved.

### **Department Resources**

The department annually awards the Dr. Irene Mueller, the William T. Garrett, the B.D. and Janet Scott, and the Fred C. and Grace E. Nelson Scholarships to biology majors, and the Mark B. Robbins, and the David B. Hoffman Scholarships to wildlife ecology and conservation majors. The Department of Biological Sciences annually honors two outstanding graduating seniors, one female and one male, with awards. Students receiving these awards are nominated by their advisors and voted on by the faculty.

The department also supports the 102 River Wildlife Club, the Pre-Medical Professional Club, and the Beta Beta Beta Honorary Society.

The department regularly takes advantage of three field sites for hands-on experience in support of the objectives of various courses. Dobbins Woodland is a mature 40-acre forest, managed for the Nature Conservancy. Mazingo Biological Reserve is a 120-acre tract of mixed grassland and forest, with access to Lake Mazingo. The Conservation Pond is a 16-acre parcel near campus, which includes a two-acre pond.

## DEPARTMENT POLICIES

Students enrolled in laboratory courses are expected to purchase dissecting kits, laboratory coats and eye protection devices for their own safety. In addition, students will be expected to purchase laboratory manuals and/or fields guides to supplement the textbook.

Problem courses (Bio 04-419, 429, 439, 449, 459, 469, 479, 489) 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 of work per week expected for each credit hour, depending on the nature of the problem. A maximum of three hours is allowed on 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 microbiology, marine vertebrate zoology and ichthyology, physical marine geology, chemical marine geology and marine chemistry) are available during the summers at the Gulf Coast Research Laboratory, Ocean Springs, Mississippi. Contact the chairperson, Department of Biological Sciences, for information and arrangements by February 1, as applications are required due to limited enrollment.

All students desiring a degree must complete a minimum of 15 hours from the Biological Sciences Department.

All graduating seniors (majors and minors) are required to take the ETS subject matter test and provide the department with test results prior to graduation approval. All unified science majors are also required to take the PRAXIS II in their endorsement areas for state certification.

## Bachelor of Science in Clinical Laboratory Sciences (formerly Medical Technology)

**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 having 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.

Application to the clinical year is usually made in the fall of the junior year. 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. Minimum grade point average ranges from 2.00 to 2.50 for both cumulative GPA and science courses.

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 Office of Scholarships and Financial Assistance.

### **B.S. in Clinical Laboratory Sciences Degree Requirements**

	Semester Hours
General Education Requirements (See pages 69-72)	42
Science	46
Electives	6
Clinical Laboratory Sciences Courses at Approved Teaching Hospital or Clinic*	30
<b>TOTAL MINIMUM ACADEMIC</b>	<b>124</b>

\*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 pre-clinical coursework is completed provided all other criteria are satisfied.

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

#### **Des Moines, Iowa**

Mercy Medical Center—Dr. Vijaya L. Dhanwada, Medical Director  
Kyla Deibler, MS, MT (ASCP), CLS (NCA), Program Director

#### **Kansas City, Mo.**

St. Luke's Hospital of Kansas City—Dr. Marjorie Zuker, Medical Administrator  
Jane Rachel, MA, MT (ASCP), Program Director

#### **North Kansas City, Mo.**

North Kansas City Memorial Hospital—Dr. Mark Stivers, Medical Director  
Jean E. Cooper, MPA, MT (ASCP), Program Director

### **Bachelor of Science in Clinical Laboratory Sciences**

Required Courses	Semester Hours
Chem 24-114/115 General Chemistry I and Laboratory	4
Bio 04-102/103 General Biology and Laboratory	4
Bio 04-140 General Microbiology	4
Bio 04-310 Cell Biology (4) OR Bio 04-440 Molecular Biology (4) OR Math 17-114 General Statistics I (3)	3-4
Bio 04-438 Human Physiology	4
Bio 04-350 Genetics	3
Bio 04-444 Immunology	4
<b>Total Hours</b>	<b>26-27</b>

<b>Clinical Laboratory Sciences</b>	30
In conjunction with approved hospitals and medical centers.	
<b>Collateral Courses</b>	
Chem 24-116/117 General Chemistry II and Laboratory	5
Chem 24-322/323 Quantitative Analysis and Laboratory	5
Chem 24-342/343 Organic Chemistry I and Laboratory	5
Chem 24-362/363 Elementary Biochemistry and Laboratory	4
<b>Directed General Education Courses</b>	
The following courses are to be taken to fulfill General Education requirements:	
Math 17-118 College Algebra	3
Bio 04-114/115 General Zoology and Laboratory	4
Phys 25-112/113 General Physics II and Laboratory	4
<b>General Education Requirements (less directed General Education courses)</b>	31
<b>Electives</b>	6-7
<b>Total Degree Requirements</b>	124

## MAJORS

### **Major in Biology, 37 hours: B.S.—Minor Required Areas of Emphasis: Botany, Cellular/Molecular, Ecology, Environmental Science, General Biology, and Zoology**

This degree program is designed to give the student the opportunity to study in any of several areas of biology. The core courses are required of all the students, and each area of emphasis has additional requirements specific for that emphasis. Additional courses in the area, to total 37 hours, will be selected with the advice and consent of the advisor. Core courses plus areas of emphasis must total 37 hours with approved biology electives.

<b>Core Courses for a Major in Biology</b>	<b>Semester Hours</b>
Chem 24-114/115 General Chemistry I and Laboratory	4
Bio 04-114/115 General Zoology and Laboratory	4
Bio 04-310 Cell Biology	4
Bio 04-350 Genetics	3
Bio 04-376 Basic Ecology	4
Bio 04-491 Biological Science Seminar	1
Bio 04-383 Biology Practicum	1
<b>Total Hours</b>	<b>21</b>
<b>Required Collateral Areas for a Major in Biology</b>	
Phys 25-112/113 General Physics II and Laboratory	4
Chem 24-116/117 General Chemistry II and Laboratory	5
Chem 24-342/343 Organic Chemistry I and Laboratory	5
Additionally, the following are required for the Cellular/Molecular Emphasis:	
Chem 24-344/345 Organic Chemistry II and Laboratory AND	5
Chem 24-362/363 Elementary Biochemistry and Laboratory (4) OR	
Chem 24-562/563 General Biochemistry and Laboratory (5)	4-5
<b>Directed General Education Courses for a Major in Biology</b>	
Bio 04-112/113 General Botany and Laboratory	4
Phys 25-110/111 General Physics I and Laboratory	4

Math 17-118 College Algebra 3

NOTE: Math 17-120 Calculus replaces 17-118 for the  
Cellular/Molecular Emphasis; note Calculus prerequisites 4

### **Biology: Botany Emphasis**

Required Courses	Semester Hours
Biology Core	21
Bio 04-261 Local Flora	2
Bio 04-318 Principles of Taxonomy and Evolution	4
Bio 04-412 Plant Anatomy and Morphology	4
Bio 04-430 Plant Physiology	4
Bio 04-575 Methods in Plant Ecology	2
<b>Total Hours</b>	<b>37</b>

### **Biology: Cellular/Molecular Emphasis**

Required Courses	Semester Hours
Biology Core	21
Bio 04-140 Microbiology	4
Bio 04-440 Molecular Biology	4
Bio 04-444 Immunology	4
Bio 04-430 Plant Physiology OR Bio 04-438 Human Physiology	4
<b>Total Hours</b>	<b>37</b>

Please note the collateral and directed general education requirements for the Cellular/Molecular Emphasis listed above.

### **Biology: Ecology Emphasis**

Required Courses	Semester Hours
Biology Core	21
Bio 04-261 Local Flora	2
Bio 04-575 Methods in Plant Ecology	2
Bio 04-577 Methods in Animal Ecology	2
One additional animal course above 300 level with advisor's consent	3
Geol 27-114/115 General Earth Science and Laboratory OR Geol 27-110/111 General Geology and Laboratory OR Ag 03-334 Soils	4
Advisor-approved biology electives above 300 level	3
<b>Total Hours</b>	<b>37</b>

### **Biology: Environmental Science Emphasis**

Required Courses	Semester Hours
Biology Core	21
Bio 04-575 Methods in Plant Ecology OR Bio 04-577 Methods in Animal Ecology	2
Bio 04-420 Environmental Issues	4
Geol 27-110/111 General Geology and Laboratory OR Geol 27-114/115 General Earth Science and Laboratory	4

<b>Choose 6 hours from the following:</b>	6
Ag 03-334 Soils (4)	
Bio 04-307 Environmental Internship (1-3)	
Bio 04-474 Wildlife Management and Conservation (2)	
Chem 24-322/323 Quantitative Analysis and Laboratory (5)	
Geol 27-340 Introduction to Hydrogeology (3)	
Geol 27-360 Environmental Geology (4)	
Geol 27-424 Geochemistry (3)	
Geol 27-515 Environmental Regulations (2)	
Other advisor-approved electives	
<b>Total Hours</b>	<b>37</b>

### **Biology: General Biology Emphasis**

<b>Required Courses</b>	<b>Semester Hours</b>
Biology Core	21
As equal a number of hours as possible in plant and animal biology are to be selected with the advice and consent of the advisor.	16
<b>Total Hours</b>	<b>37</b>

The following courses may be counted either as animal or plant courses:

- Bio 04-140 Microbiology
- Bio 04-318 Principles of Taxonomy and Evolution
- Bio 04-420 Environmental Issues
- Bio 04-440 Molecular Biology
- Bio 04-474 Wildlife Management and Conservation

### **Biology: Zoology Emphasis**

<b>Required Courses</b>	<b>Semester Hours</b>
Biology Core	21
Bio 04-312 Invertebrate Zoology	4
Bio 04-322 Comparative Anatomy	4
+Biology Electives	8
<b>Total Hours</b>	<b>37</b>

+Courses selected from the approved electives listed:

- Bio 04-130 Animal Anatomy and Physiology
- Bio 04-362 Mammalogy
- Bio 04-364 Ornithology
- Bio 04-366 Entomology
- Bio 04-418 Vertebrate Histology
- Bio 04-436 Human Anatomy
- Bio 04-438 Human Physiology
- Bio 04-460 Herpetology
- Bio 04-474 Wildlife Management and Conservation
- Bio 04-575 Methods in Plant Ecology
- Bio 04-577 Methods in Animal Ecology

**NOTE:** Gulf Coast courses will count as biology electives along with Chem 24-362/363 Elementary Biochemistry and Laboratory and Chem 24-562/563 General Biochemistry and Laboratory.

**Unified Science Major in Biology, 60-61 hours: B.S.Ed.,  
Secondary Program—No Minor Required (Certifies Grades 9-12,  
Endorsement Area: Biology)**

Required Courses in Endorsement Area: Biology	Semester Hours
Bio 04-114/115 General Zoology and Laboratory	4
Bio 04-130 Animal Anatomy and Physiology	4
Bio 04-140 General Microbiology	4
Bio 04-310 Cell Biology	4
Bio 04-350 Genetics	3
Bio 04-318 Principles of Taxonomy and Evolution	4
*Bio 04-419 Problems in General Biology (1-3) OR	
*Bio 04-489 Problems in Biological Education (1-3)	1
Bio 04-491 Biological Science Seminar	1
Bio 04-420 Environmental Issues	4
Bio 04-383 Biology Practicum	1
Chem 24-114/115 General Chemistry I and Laboratory	4

\* Only one credit hour is required, but may be taken for up to 3 hours credit

**Required Collateral Courses for the Unified Science Major**

Sci Ed 28-550 History of Science and Technology	3
Chem 24-116/117 General Chemistry II and Laboratory	5
Chem 24-242/243 Organic Chemistry and Laboratory OR	
Chem 24-342/343 Organic Chemistry I and Laboratory	4-5
Phys 25-110/111 General Physics I and Laboratory	4
Phys 25-112/113 General Physics II and Laboratory	4
Geol 27-212 Historical Geology	4
Math 17-119 Trigonometry	2

**Total Hours in Major** 60-61

**Directed General Education Courses**

Bio 04-112/113 General Botany and Laboratory	4
Math 17-118 College Algebra	3
Geol 27-114/115 General Earth Science and Laboratory	4

**Professional Education Requirements** 30

Including Sci Ed 28-580 Methods in Secondary School Science (3)

NOTE: Although not required, the department recommends that students take the following courses:  
Chem 24-135 Laboratory Safety and Math 17-114 General Statistics I.

**Major in Biology Education, 55-57 hours: B.S.Ed., Secondary  
Program—No Minor Required (Certifies Grades 9-12)**

Required Courses	Semester Hours
Chem 24-114/115 General Chemistry I and Laboratory	4
Bio 04-114/115 General Zoology and Laboratory	4
Bio 04-140 General Microbiology	4
Bio 04-310 Cell Biology	4
Bio 04-350 Genetics	3
Bio 04-318 Principles of Taxonomy and Evolution	4
Bio 04-420 Environmental Issues	4
Bio 04-383 Biology Practicum	1

Bio 04-419 Problems in General Biology (1-3) OR	
Bio 04-489 Problems in Biology Education (1-3)	1-2
Bio 04-491 Biological Science Seminar	1
Bio 04-130 Animal Anatomy and Physiology (4) OR	
Bio 04-430 Plant Physiology (4) OR	
Bio 04-438 Human Physiology (4)	4
Chem 24-116/117 General Chemistry II Laboratory	5
Chem 24-342/343 Organic Chemistry I and Laboratory	5
Chem 24-362/363 Elementary Biochemistry and Laboratory (4) OR	
Chem 24-562/563 General Biochemistry and Laboratory (5)	4-5
Sci Ed 28-550 History of Science and Technology	3
Phys 25-110/111 General Physics I and Laboratory (4) OR	
Phys 25-112/113 General Physics II and Laboratory (4)	4

**Directed General Education Courses**

Math 17-118 College Algebra	3
Bio 04-112/113 General Botany and Laboratory	4
Geol 27-114/115 General Earth Science and Laboratory	4

**Professional Education Requirements** 30

Including Sci Ed 28-580 Methods in Secondary School Science (3)

NOTE: Although not required, the department recommends that students take the following courses:  
Chem 24-135 Laboratory Safety and Math 17-114 General Statistics I.

**Comprehensive Major in Marine Biology, 60 hours:****B.S.—No Minor Required**

Required Courses	Semester Hours
Bio 04-114/115 General Zoology and Laboratory	4
Bio 04-310 Cell Biology	4
Bio 04-312 Invertebrate Zoology	4
Bio 04-350 Genetics	3
*Bio 04-351 Oceanography I: Physical, Chemical and Geology	5
*Bio 04-352 Oceanography II: Marine Biology	5
Bio 04-376 Basic Ecology	4
Bio 04-383 Biology Practicum	1
Bio 04-491 Biological Science Seminar	1
**Approved electives above 300 level	5

\* Taught at the Gulf Coast Research Laboratory each summer

\*\*Bio 04-362 Mammalogy and/or additional marine lab courses are recommended

**Collateral Courses**

Math 17-114 General Statistics I	3
Chem 24-116/117 General Chemistry II and Laboratory	5
Chem 24-342/343 Organic Chemistry I and Laboratory	5
Phys 25-110/111 General Physics I and Laboratory	4
Phys 25-112/113 General Physics II and Laboratory	4
Geog 32-365 Geographic Information Systems	3

**Directed General Education Courses**

Bio 04-112/113 General Botany and Laboratory	4
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Math 17-118 College Algebra (3) OR	
Math 17-120 Calculus I (4)	3-4
Chem 24-114/115 General Chemistry I and Laboratory	4

NOTE: Although not required, students planning graduate study are encouraged to take Math 17-120 Calculus I, Bio 04-140 General Microbiology, and either Geol 27-114/115 General Earth Science and Laboratory or Geol 27-110/111 General Geology and Laboratory.

### **Comprehensive Major in Pre-Professional Zoology, 58 hours: B.S.—No Minor Required**

Required Courses	Semester Hours
Chem 24-114/115 General Chemistry I and Laboratory	4
Bio 04-114/115 General Zoology and Laboratory	4
Bio 04-140 General Microbiology	4
Bio 04-322 Comparative Anatomy	4
Bio 04-350 Genetics	3
Bio 04-418 Vertebrate Histology	4
Bio 04-438 Human Physiology	4
Bio 04-310 Cell Biology	4
Bio 04-444 Immunology	4
Bio 04-491 Biological Science Seminar	1
<b>Collateral Courses</b>	
Chem 24-116/117 General Chemistry II and Laboratory	5
Chem 24-342/343 Organic Chemistry I and Laboratory	5
Chem 24-344/345 Organic Chemistry II and Laboratory	5
Chem 24-362 Elementary Biochemistry OR	
Chem 24-562 General Biochemistry	3
Phys 25-112/113 Physics II and Laboratory	4
<b>Directed General Education Courses</b>	
Math 17-118 College Algebra	3
Bio 04-112/113 General Botany and Laboratory	4
Phys 25-110/111 General Physics I and Laboratory	4

### **Comprehensive Major in Wildlife Ecology and Conservation, 60 hours: B.S.—No Minor Required**

Required Courses	Semester Hours
Chem 24-114/115 General Chemistry I and Laboratory	4
Bio 04-114/115 General Zoology and Laboratory	4
Bio 04-130 Animal Anatomy and Physiology	4
Bio 04-261 Local Flora	2
Bio 04-366 Entomology	3
Bio 04-312 Invertebrate Zoology	4
Bio 04-350 Genetics	3
Bio 04-362 Mammalogy	4
Bio 04-364 Ornithology	3
Bio 04-376 Basic Ecology	4
Bio 04-474 Wildlife Management and Conservation	2
Bio 04-491 Biological Science Seminar	1
Bio 04-575 Methods in Plant Ecology	2
Bio 04-577 Methods in Animal Ecology	2

Ag 03-334 Soils	4
<b>Collateral Courses</b>	
Chem 24-116/117 General Chemistry II and Laboratory	5
Geog 32-365 Geographic Information Systems	3
Ag 03-382 Woody Landscape Plants	3
Math 17-114 General Statistics I	3
<b>Directed General Education Courses</b>	
Math 17-118 College Algebra	3
Bio 04-112/113 General Botany and Laboratory	4
Phys 25-110/111 General Physics I and Laboratory OR	
Phys 25-112/113 General Physics II and Laboratory	4

NOTE: One additional credit hour of botany is required to meet the wildlife biologist position for the Federal Register; take as an elective.

### **Comprehensive Major in Wildlife Ecology and Conservation, 56 hours: B.A.—No Minor Required**

Required Courses	Semester Hours
Chem 24-114/115 General Chemistry I and Laboratory	4
Bio 04-114/115 General Zoology and Laboratory	4
Bio 04-130 Animal Anatomy and Physiology	4
Bio 04-261 Local Flora	2
Bio 04-366 Entomology	3
Bio 04-312 Invertebrate Zoology	4
Bio 04-350 Genetics	3
Bio 04-362 Mammalogy	4
Bio 04-364 Ornithology	3
Bio 04-376 Basic Ecology	4
Bio 04-474 Wildlife Management and Conservation	2
Bio 04-491 Biological Science Seminar	1
Ag 03-334 Soils	4
<b>Collateral Courses</b>	
Chem 24-116/117 General Chemistry II and Laboratory	5
Math 17-114 General Statistics I	3
Geog 32-365 Geographic Information Systems	3
Ag 03-382 Woody Landscape Plants	3
<b>Directed General Education Courses</b>	
Math 17-118 College Algebra	3
Bio 04-112/113 General Botany and Laboratory	4
Phys 25-110/111 General Physics I and Laboratory OR	
Phys 25-112/113 General Physics II and Laboratory	4

NOTE: Three additional credit hours in botany are required to meet the wildlife biologist position for the Federal Register; take as an elective.

### **Comprehensive Major in Biology/Psychology, 67-68 hours: B.S.—No Minor Required**

This major allows students to complete individual programs of study arranged by advisors in both the Department of Biological Sciences and the Department of Psychology, Sociology and Counseling. While requiring students to complete half their class work as advised by each

department, the number of elective hours gives this 67-68 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 departments at an early date to contract a program of study.

<b>Required Courses for Psychology</b>	<b>Semester Hours</b>
Psych 08-223 Abnormal Psychology	3
Psych 08-333 Developmental Psychology	3
Psych 08-343 Biological Psychology	3
Psych 08-443 Advanced Biological Psychology	3
Psych 08-373 Learning and Motivation	3
Electives as determined and approved by the psychology advisor	15
<b>Required Courses for Biology</b>	
Bio 04-114/115 General Zoology and Laboratory	4
Bio 04-350 Genetics	3
Bio 04-491 Biological Science Seminar	1
Chem 24-114/115 General Chemistry I and Laboratory	4
Chem 24-116/117 General Chemistry II and Laboratory	5
Choose one of the following with advisor approval:	
*Phys 25-110/111 General Physics I and Laboratory (4) OR	
*Phys 25-112/113 General Physics II and Laboratory (4) OR	
Chem 24-242/243 Organic Chemistry and Laboratory (4) OR	
Chem 24-342/343 Organic Chemistry I and Laboratory (5)	4-5
Electives as determined and approved by the biology advisor	16
<b>Directed General Education Courses</b>	
Psych 08-103 General Psychology	3
Math 17-118 College Algebra	3
Bio 04-112/113 General Botany and Laboratory	4
Phys 25-110/111 General Physics I and Laboratory (4) OR	
Phys 25-112/113 General Physics II and Laboratory (4)	4

\*Cannot be used to fulfill any General Education requirement.

## MINORS

### Minor in Biology, 24 hours: B.S.

<b>Required Courses</b>	<b>Semester Hours</b>
*Bio 04-112/113 General Botany and Laboratory	4
*Bio 04-114/115 General Zoology and Laboratory	4
Bio 04-350 Genetics	3
Bio 04-491 Biological Science Seminar	1
Chem 24-114/115 General Chemistry and Laboratory	4
Approved biology electives (two hours must be at 300 level)	8

\*Cannot be used to fulfill any General Education requirement.

### Minor in Biology, 21 hours: B.A.

<b>Required Courses</b>	<b>Semester Hours</b>
*Bio 04-112/113 General Botany and Laboratory	4
*Bio 04-114/115 General Zoology and Laboratory	4

Bio 04-350 Genetics	3
Bio 04-491 Biological Science Seminar	1
Chem 24-114/115 General Chemistry I and Laboratory	4
Approved biology electives (two hours must be at 300 level)	5

\*Cannot be used to fulfill any General Education requirement.

### **Minor in Biology Education, 31 hours: B.S. Ed., Secondary (Certifies 9-12)**

Required Courses	Semester Hours
Bio 04-112/113 General Botany and Laboratory	4
Bio 04-114/115 General Zoology and Laboratory	4
Bio 04-140 General Microbiology	4
Bio 04-130 Animal Anatomy and Physiology	4
Bio 04-310 Cell Biology	4
Bio 04-350 Genetics	3
Bio 04-318 Principles of Taxonomy and Evolution	4
Bio 04-383 Biology Practicum	1
Sci Ed 28-550 History of Science and Technology	3

#### **Professional Education Requirements**

Sci Ed 28-580 Methods in Secondary School Science is the required subject field methods course.

NOTES: Although not required, the department recommends that students take the following courses: Chem 24-135 Laboratory Safety and Math 17-114 General Statistics I.

### **Interdisciplinary Minor in Environmental Science, 26 hours**

Required Courses	Semester Hours
Chem 24-114/115 General Chemistry I and Laboratory	4
Bio 04-114/115 General Zoology and Laboratory	4
Bio 04-376 Basic Ecology	4
Geol 27-360 Environmental Geology OR	
Bio 04-420 Environmental Issues	4
Geol 27-340 Hydrogeology	3
Geog 32-501 Conservation of Natural Resources	3
Advisor-approved electives (choose 4 hours):	4
Ag 03-334 Soils (4)	
Bio 04-140 General Microbiology (4)	
Bio 04-307 Environmental Internship (1-3)	
Bio 04-474 Wildlife Management and Conservation (2)	
Bio 04-575 Methods in Plant Ecology (2)	
Bio 04-577 Methods in Animal Ecology (2)	
Geol 27-424 Geochemistry (3)	
Geol 27-515 Environmental Regulations (2)	
Geol 27-530 Sedimentology (3)	
Geog 32-361 Climatology (3)	
Other courses as approved by the advisor	

**Directed General Education Courses**

Bio 04-112/113 General Botany and Laboratory	4
Geol 27-114/115 General Earth Science and Laboratory	4

NOTES: No biology course in the Environmental Science Minor may also be counted toward any major in the Department of Biological Sciences. 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 biology courses.

This minor may not be paired with the Environmental Science Emphasis of the B.S. in Biology.

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.

**DEPARTMENT NON-DEGREE PROGRAM****Medical Administrative Assistant: Two-year curriculum, 60 hours**

Required Courses	Semester Hours
CPAS 76-101 Freshman Seminar	1
Eng 10-111/10-112 Composition OR ACT English credit/10-115 Honors Composition	6
Bio 04-102/103 General Biology and Laboratory	4
Bio 04-104 Medical Terminology	3
Bio 04-114/115 General Zoology and Laboratory	4
Bio 04-140 General Microbiology	4
Bio 04-436 Human Anatomy	4
Chem 24-112/113 General Chemistry and Laboratory	4
Math 17-118 College Algebra	3
CSIS 44-130 Computers and Information Technology	3
CSIS 44-211 Spreadsheet Applications	1
CSIS 44-212 Advanced Spreadsheet and Charting	1
CSIS 44-245 DigiTools	3
CSIS 44-331 Integrated Software Applications	3
CSIS 44-343 Virtual Workplace	3
CSIS 44-346 Database Applications	1
Acct 51-201 Accounting I	3
Mgmt 54-310 Managerial Communications	3
Mgmt 54-313 Principles of Management	3
Choose three hours from the following:	3
CSIS 44-221 Web Development (1)	
Bio 04-293 Medical Transcription and Medical Records (2)	
Fin 53-311 Business Law (3)	
Psych 08-103 General Psychology (3)	
<b>Total Hours</b>	<b>60</b>

# 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.

### Major in Nanoscience, 72 hours: B.S.—No Minor Required

The offering of this major is contingent upon State approval. First planned offering of this major is Fall 2006.

#### Nanoscale Biology Emphasis

This is an interdisciplinary major in conjunction with the Departments of Biological Sciences, Chemistry and Physics, and Mathematics and Statistics. Three emphasis areas are available for this major: Nanoscale Biology, Nanoscale Chemistry and Nanoscale Physics.

Required Core Courses	Semester Hours
Bio 04-140 Microbiology	4
Bio 04-310 Cell Biology	4
Bio 04-350 Genetics	3
Bio 04-440 Molecular Biology	4
Math 17-114 General Statistics I	3
Math 17-121 Calculus II	4
Chem 24-114/115 General Chemistry I and Laboratory	4
Chem 24-116/117 General Chemistry II and Laboratory	5
Chem 24-135 Laboratory Safety	2
Chem 24-342/343 Organic Chemistry I and Laboratory	5
Chem 24-562/563 Biochemistry and Laboratory	5
Phys 25-230/231 Classical Physics II and Laboratory	5
Nano 48-314 Nanoscale Science I	4
Nano 48-315 Nanoscale Science II	4
<b>Total Core Requirements</b>	<b>56</b>

#### Nanoscale Biology Emphasis Required Courses

Bio 04-444 Immunology	4
Bio 04-511 Techniques in Biotechnology	4
Chem 24-344/345 Organic Chemistry II and Laboratory	5
Chem 24-450 Macromolecular Structures	3
<b>Total Emphasis Hours</b>	<b>16</b>

#### Directed General Education Courses

Bio 04-112/113 General Botany and Laboratory	4
Math 17-120 Calculus I	4
Phys 25-120/121 Classical Physics I and Laboratory	5
Phil 39-274 Introduction to Ethics	3

**Nanoscale Chemistry Emphasis – see the Chemistry and Physics Department**

**Nanoscale Physics Emphasis – see the Chemistry and Physics Department**

# Science Education / 28

## DEGREE PROGRAMS AND SCIENCE TEACHING CERTIFICATION

The major objectives of the science education programs are (a) to provide courses related to the teaching of science to meet the special needs of prospective elementary and secondary school teachers; (b) to provide programs for special science teachers for elementary schools and for science teachers for middle schools and junior high schools; and (c) to provide a graduate program leading to the M.S.Ed. in Science Education for science teachers and science supervisors. (See *Graduate Catalog* for more details about Northwest's master's programs.)

## MINOR

**Minor in Middle School Science, 25 hours: B.S.Ed., Major in Middle School (Certifies Grades 5-9). Additional concentration area is required.**

Required Courses	Semester Hours
*Bio 04-112/113 General Botany and Laboratory OR	
*Bio 04-114/115 General Zoology and Laboratory	4
Geol 27-114/115 General Earth Science and Laboratory	4
Phy Sci 40-122/123 Descriptive Astronomy and Laboratory	4
Phy Sci 40-102/103 The Physical Sciences and Laboratory	4
Chem 24-114/115 General Chemistry and Laboratory OR	
Phys 25-110/111 General Physics and Laboratory OR	
Phys 25-112/113 General Physics II and Laboratory	4
Chem 24-135 Laboratory Safety	2
Sci Ed 28-550 History of Science and Technology	3
<b>Directed General Education Course</b>	
Bio 04-102/103 General Biology and Laboratory	4
<b>Professional Education Requirement</b>	
Sci Ed 28-582 Methods in Middle School Science is included in Middle School major.	

\*Cannot be used to fulfill any General Education requirement.

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## Course Descriptions

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### Biology / 04

#### 102 General Biology (3 hours)

A general course in biology which provides students a broad understanding of the basic principles of biological science such as cells, energy production, photosynthesis, genetics, plant and animal physiology, ecology and diversity. Upon completion, students should be able to understand the intricate relationship between living organisms

and their environment and more intelligently act upon important issues facing our society. Must co-register in Bio 04-103. Three hours of lecture per week. (F, S, SS)

#### 103 General Biology Laboratory (1 hour)

A two-hour laboratory which must be taken concurrently with Bio 04-102 (F, S, SS)

**104 Medical Terminology (3 hours)**

Medical terms encountered in the anatomy, physiology and surgical procedures of the life support systems. (F, S)

**110 Theory and Practice of Emergency Medical Techniques (4 hours)**

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)

**111 Emergency Medical Techniques (2 hours)**

A brief refresher of Bio 04-110 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)

**112 General Botany (3 hours)**

A fundamental study of plants: life histories, structure, physiology, ecology and economic importance. Must co-register for Bio 04-113. Prerequisites: Bio 04-102/103 or equivalent of two years of high school biology. Three hours of lecture per week. (F, S, SS)

**113 General Botany Laboratory (1 hour)**

A two-hour laboratory which must be taken concurrently with Bio 04-112. (F, S, SS)

**114 General Zoology (3 hours)**

Introduction to animal life including life histories, structure, functions and reproduction. Must co-register for Bio 04-115. Three hours of lecture per week. Prerequisites: Bio 04-102/103 or equivalent of two years of high school biology. (F, S, SS)

**115 General Zoology Laboratory (1 hour)**

Two-hour laboratory which must be taken concurrently with Bio 04-114. (F, S, SS)

**130 Animal Anatomy and Physiology (4 hours)**

A study of the basic physiological functions and anatomical concepts of the primary systems of the animal body. Three hours of lecture and two hours of laboratory per week. Prerequisites: Bio 04-102/103 or equivalent, Chem 24-112/113 or 24-114/115 or 24-116/117 or taken con-

currently. Recommended prerequisite: Bio 04-114/115. (S)

**140 General Microbiology (4 hours)**

A study of the morphology, physiology and culturing of microorganisms. Studies on disease-producing organisms, the fundamentals of immunology, various laboratory techniques, and procedures and the applications of microbiology will be included. Two hours of lecture and four hours of laboratory per week. Prerequisites: Bio 04-102/103 or 112/113 or 114/115 and Chem 24-114/115. Pre-nursing and medical administrative assistant students may substitute Chem 24-112/113. (F, S)

**210 Current Topics in Biology (1-3 hours)**

Each current topic is specifically designed to address a timely topic in biology.

**261 Local Flora (2 hours)**

A two-hour laboratory course designed to acquaint the student with plants of this region and their classification. Prerequisite: Bio 04-112/113. (F)

**293 Medical Transcription and Medical Records Practicum (2 hours)**

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)

**301 Pre-Professional Health Science Internship (1-3 hours)**

Each student will be supervised and be an active participant in an area of health care. A professional paper describing the supervised experience will be required. By permission only. (F, S, SS)

**303 Wildlife Ecology and Conservation Internship (1-3 hours)**

Each student will be supervised and be an active participant in an area of wildlife ecology or conservation. A professional paper describing the supervised experience will be required, along with a program given to the department's 102 River Wildlife Club. May be repeated for a maximum of nine credit hours. Prerequisite: Permission of instructor. (F, S, SS)



**306 Undergraduate Research in Biology (1-3 hours)**

This course is designed to allow students to become involved in undergraduate research projects directed by a departmental faculty member. The student will develop the project, write the proposal and present the results at a local, state or national meeting. (F, S)

**307 Environmental Internship (1-3 hours)**

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. (F, S, SS)

**310 Cell Biology (4 hours)**

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. Prerequisites: 8 hours of biology and 8 hours of chemistry. Recommended prerequisites: Chem 24-342/343 and either Chem 24-362/363 or 24-562/563. (F)

**312 Invertebrate Zoology (4 hours)**

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: Bio 04-114/115. (S)

**318 Principles of Taxonomy and Evolution (4 hours)**

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: Bio 04-112/113 and 04-114/115. (S, even years)

**322 Comparative Anatomy (4 hours)**

The comparative anatomical evolution of the vertebrates. Laboratory consists of dissection of various vertebrates. Two hours of lecture and six hours of laboratory per week. Prerequisite: Bio 04-114/115. (F)

**350 Genetics (3 hours)**

An introduction to the fundamental facts and principles of inheritance including the physical,

biochemical and cytological bases for Mendelian inheritance, selection and breeding, probability and human genetics. Two hours of lecture and two hours of laboratory per week. Prerequisites: Bio 04-112/113, 04-114/115 and/or permission of instructor. Recommended Chem 24-242/243 or 24-342/343. (F, S)

**362 Mammalogy (4 hours)**

A study of mammals with emphasis upon their classification, identification, evolution, life histories, ecology, habits, anatomy, physiology, aesthetic and economic values. One hour lecture and two three-hour laboratories per week. Prerequisite: Bio 04-114/115. (F)

**364 Ornithology (3 hours)**

A study of the habitats, life histories, structure, functions, evolution, ecology, classification and identification of the birds found primarily in this region, with emphasis upon their economic and aesthetic values to man. One hour lecture and two two-hour laboratories per week. Prerequisite: Bio 04-114/115. (S)

**366 Entomology (3 hours)**

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: Bio 04-114/115. (F)

**376 Basic Ecology (4 hours)**

A basic study in ecological field techniques and ecological theory. Three hours of lecture and one three-hour laboratory per week. Prerequisites: Bio 04-112/113 and 114/115 or permission of instructor. (F)

**383 Biology Practicum (1 hour)**

Instruction and practical experience in development, teaching and the preparation of introductory biology laboratories. Coordinated by the bioscience coordinator. Bio 04-483 may be taken for an additional practicum credit. One laboratory section per week. Prerequisites: Junior standing and four or more courses in biology or permission of instructor. (F, S, SS)

**412 Plant Anatomy and Morphology (4 hours)**

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: Bio 04-112/113. (S, alt. years)

#### **418 Vertebrate Histology (4 hours)**

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: Bio 04-322. (S)

#### **419 Problems in General Biology (1-3 hours)**

Permission of instructor necessary.

#### **420 Environmental Issues (4 hours)**

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. Recommended prerequisites: Bio 04-102/103, Chem 24-114/115, Geol 27-110/111 or Geol 27-114/115. Three hours of lecture plus one two-hour lab per week. (S)

#### **429 Problems in Morphological-Anatomical Biology (1-3 hours)**

Permission of instructor necessary.

#### **430 Plant Physiology (4 hours)**

A study of the chemical and physical processes involved in the growth and functioning of plants. Three hours lecture and three hours laboratory per week. Prerequisites: Bio 04-112/113, Chem 24-114/115, and Chem 24-342/343. Highly recommended prerequisites: Chem 24-362/363 or 24-562/563. (S, even years)

#### **436 Human Anatomy (4 hours)**

The systematic study of human anatomy, including the skeletal, muscular, cardiovascular, digestive, respiratory, urinary, endocrine, reproductive, and integumentary systems. Three hours of lecture and three hours of laboratory per week. Prerequisites: Bio 04-102/103 and 04/114/115. Medical Terminology is recommended. (F)

#### **438 Human Physiology (4 hours)**

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. Prerequisites: 12 hours of biology and Chem 24-112/113 or 24-114/115. An anatomy course is recommended. (F, S)

#### **439 Problems in Molecular-Physiological Biology (1-3 hours)**

Permission of instructor necessary.

#### **440 Molecular Biology (4 hours)**

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: Bio 04-350. Recommended prerequisites: Bio 04-140, 04-310, Chem 24-362/363. (S, odd years)

#### **444 Immunology (4 hours)**

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. Prerequisite: Bio 04-140. (S)

#### **449 Problems in Microbial Biology (1-3 hours)**

Permission of instructor necessary.

#### **459 Problems in Genetical Biology (1-3 hours)**

Permission of instructor necessary.

#### **460 Herpetology (4 hours)**

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: Bio 04-114/115. (S)

#### **469 Problems in Taxonomical Biology (1-3 hours)**

Permission of instructor necessary.

#### **470 Readings in Ecology (2 hours)**

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: Bio 04-376 and senior standing. (S, odd years)

#### **474 Wildlife Management and Conservation (2 hours)**

A course designed to apply field and laboratory techniques to the management of game and non-game 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: Bio 04-114/115 and 376 and senior standing, or consent of instructor. (F)

**478 Readings in Molecular Biology (2 hours)**

Directed readings in advances and techniques in molecular biology. Prerequisites: Bio 04-310, 440; Chem 24-114/115, 116/117 and 342/343. (F, alt. years)

**479 Problems in Environmental Biology (1-3 hours)**

Permission of instructor necessary.

**483 Advanced Biology Practicum (1 hour)**

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. (F, S, SS)

**489 Problems in Biological Education (1-3 hours)**

Permission of instructor necessary. Prerequisites: Bio 04-112/113 and 04-114/115.

**491 Biological Science Seminar (1 hour)**

Individual reports and group discussion of problems and current research in biological sciences. May be repeated for additional credit; maximum two semester hours. Prerequisite: Senior standing in major or minor or permission of department chairperson. (F, S)

**500 Special Offerings (1-4 hours)****510 Current Topics in Biology (1-3 hours)**

Each current topic is specifically designed to address a timely topic in biology.

**511 Techniques in Biotechnology (4 hours)**

A studio course dedicated to hands-on experience with common techniques utilized in the field of biotechnology. Theory and practical experience will be provided for techniques in DNA isolation, manipulation, gene cloning, library screening, molecular detection, and protein expression. Two three-hour studio sessions per week with additional independent laboratory work required. Prerequisite: Bio 04-350. (F)

**520 Genetic Modifications of Biotechnology Feedstocks (3 hours)**

Classical and modern techniques in genetic improvement of plant species with an emphasis

on industrially important chemicals or products. Three hours of lecture and discussion per week. Must be taken concurrently with one credit hour lab Bio 04-521. Prerequisite: Chem 24-510 or concurrently. (F)

**521 Genetic Modifications of Biotechnology Feedstocks Laboratory (1 hour)**

Classical and modern techniques in genetic improvement of plant species on industrially important chemicals or products. One hour laboratory which must be taken concurrently with Bio 04-520. (F)

**575 Methods in Plant Ecology (2 hours)**

This course surveys field techniques for collection of data and analysis of plant communities. Emphasis is placed on methods of analysis of the plant community. Three hours of laboratory per week. Prerequisites: Bio 04-376. Math 17-114 highly recommended. (F)

**577 Methods in Animal Ecology (2 hours)**

This course will apply field techniques for the collection of data and analysis of animal communities. Emphasis is on methods of analysis and preparation of an environmental assessment of two animal communities. Six hours of laboratory per week. Prerequisite: Bio 04-376. (S, second block)

**CLINICAL LABORATORY SCIENCES****(formerly Medical Technology)**

The following senior-level courses, **designated CLS**, are taken by students in a hospital clinical laboratory internship program. They are taught by the hospitals' schools of clinical laboratory sciences. They are not offered on campus by Northwest Missouri State University. The variation in credit is the result of differences in the prescribed programs offered by the hospitals.

**CLS 401 Clinical Microbiology (6-9 hours)**

The theory and laboratory study of pathogenic bacteria, viruses, rickettsiae, fungi and parasites. Includes specimen handling, methods of isolation, cultivation, diagnostic procedures, asepsis, environmental monitoring, medical significance and quality control.

**CLS 403 Clinical Chemistry (6-10 hours)**

Identification and quantitation of specific chemical substances in blood and body fluids by various

analytical techniques; clinical correlation with diagnosis and treatment of disease; principles of instrumentation; toxicology; and quality control.

**CLS 405 Clinical Hematology (4-7 hours)**

Theory of blood cell formation, morphology of cellular constituents, disease states, homeostasis and coagulation testing. Techniques and instrumentation used to determine major hematological and clotting parameters will be included, along with quality control procedures.

**CLS 407 Clinical Immunohematology (3-7 hours)**

A study of the common blood group systems, principles and procedures for antigen-antibody detection, cross-matching, blood collection and preservation, the evaluation of transfusion reaction(s), clinical correlation of abnormalities and quality control.

**CLS 409 Clinical Immunology (2-6 hours)**

Covers characteristics of antigen-antibody function and interaction, principles and procedures of humoral and cellular immune responses, performances of serological procedures, clinical correlation of abnormalities and quality control.

**CLS 411 Clinical Urinalysis (Microscopy) (1-3 hours)**

A study of renal physiology and function in healthy and diseased states. Includes chemical and microscopic examination of urine, other excreta, and body fluids in relation to disease processes, along with quality control procedures.

**CLS 413 Topics in Medical Technology (0-4 hours)**

Subject matter may include the following: hospital orientation, laboratory management, radioisotope techniques, laboratory safety, special projects, special techniques, quality control procedures and seminars on various subjects deemed necessary by hospital personnel.

**GULF COAST RESEARCH**

The following courses, **designated GC**, are not taught on the Northwest campus, but at the accredited Gulf Coast Research Center.

**GC 351 Oceanography I: Physical, Chemical and Geology (5 hours)**

An introductory course in oceanography which integrates chemical, geological and physical oceanography to provide fundamentals of oceanography at Gulf Coast Research Laboratory. Prerequisites: College algebra, 8-9 hours of chemistry. (SS)

**GC 352 Oceanography II: Marine Biology (5 hours)**

A general introduction to marine biology with emphasis on local fauna and flora at Gulf Coast Research Laboratory. Prerequisite: 8 hours of biology. (SS)

**GC 541 Marine Botany (4 hours)**

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 biology, including botany. Upper-level undergraduate and graduate credit. (SS)

**GC 549 Marine Microbiology (5 hours)**

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)

**Nanoscale Science / 48**

**314 Nanoscale Science I (4 hours)**

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 17-120, 121, Chem 24-114/115, 116/117, Phys 25-120/121, 230/231, Chem 24-342, and junior standing (F, odd years)

**315 Nanoscale Science II (4 hours)**

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 17-120, Bio 04-112/113, 04-350, Phys 25-120/121, 25-230/231, and junior standing. (S, even years)

**Science Education / 28****380 Methods in Elementary School Science (3 hours)**

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: Bio 04-102/103, and Phy Sci 40-102/103 or Phys 25-110/111 or 25-112/113. (F, S)

**400 Special Offerings (1-4 hours)****500 Special Offerings (1-4 hours)****550 History of Science and Technology (3 hours)**

This course will develop a conceptual framework for scientific and technological literacy. The goals of the course will relate 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 of science recommended). (S)

**580 Methods in Secondary School Science (3 hours)**

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 minor admitted to the Teacher Education Program. (F)

**582 Methods in Middle School Science (3 hours)**

A course to assist prospective middle school science teachers with the methods and materials needed in teaching science at the middle school level. Prerequisites: Science majors or minors, Sec. Ed 65-570, 15 hours of science. (F)

# Department of Chemistry / 24 and Physics / 25

**Chairperson:** Patricia Lucido

**Faculty:** Michael Bellamy, Angela Bickford, Barrett Eichler, Rafiqul Islam, Ahmed Malkawi, David Richardson, John Shaw, Richard Toomey

## **Statement of Mission**

The mission of the department is to provide quality major programs that prepare our graduates to compete in graduate school and to secure industrial and/or teaching positions. Also, the department offers quality general education and service courses that assure an understanding of the basic scientific process and the relation between science and society. The general education science courses stress the scientific method and are designed to help students learn to use simple mathematical models to analyze complex problems.

## **Test-Out Policy**

Undergraduate students may test out of certain lower division courses in chemistry and physics. Examinations are only available each trimester during the first week of class. See the department chairperson for courses that are available for test-out.

# Chemistry / 24

## **DEGREE PROGRAMS**

Students majoring in chemistry may work toward the Bachelor of Science degree, the Bachelor of Science degree (A.C.S. accredited), the Bachelor of Arts degree, or select from two Bachelor of Science in Education degrees. The Bachelor of Science degree (A.C.S. accredited) is designed as a professional degree program for chemists and to prepare students for graduate work toward the master's or Ph.D. in chemistry. This program is fully accredited by the American Chemical Society. The Bachelor of Science or Bachelor of Arts degree program is for students who wish pre-professional training in medicine, veterinary medicine, dentistry or pharmacy. The Bachelor of Science in Education, Secondary Program is designed to prepare students for teaching chemistry in secondary schools and meets Missouri, Iowa and most other state certification requirements.

## **Advanced Standing Requirement**

A student can receive advanced standing for the Bachelor of Science degree and the A.C.S. accredited Bachelor of Science degree when he/she has earned a grade of "C" or better in Math 17-120, Chem 114/115 and Chem 24-116/117. The requirements to achieve advanced standing for the Bachelor of Arts degree are a grade of "C" or better in Math 17-118, Chem 114/115 and

Chem 24-116/117. All chemistry courses that are prerequisites to other chemistry courses must be passed with a "C" or higher grade before the advanced course may be taken. It is recommended that students take sequential courses in adjacent trimesters.

## MAJORS

### **Comprehensive Major in Chemistry, A.C.S. Accredited, 69 hours: B.S.—No Minor Required**

Required Courses	Semester Hours
Chem 24-114/115 General Chemistry I and Laboratory	4
Chem 24-116/117 General Chemistry II and Laboratory	5
Chem 24-135 Laboratory Safety	2
Chem 24-322/323 Quantitative Analysis and Laboratory	5
Chem 24-342/343 Organic Chemistry I and Laboratory	5
Chem 24-344/345 Organic Chemistry II and Laboratory	5
Chem 24-522/523 Instrumental Analysis and Laboratory	4
Chem 24-532/533 Physical Chemistry I and Laboratory	4
Chem 24-534/535 Physical Chemistry II and Laboratory	4
Chem 24-552 Advanced Inorganic Chemistry	3
Chem 24-555 Inorganic Synthesis Laboratory	1
Chem 24-562 General Biochemistry	3
Chem 24-592 Chemistry Seminar	1
Chemistry electives from courses numbered above 400	3
<b>Collateral Courses</b>	
Math 17-114 General Statistics I	3
Math 17-121 Calculus II	4
Math 17-321 Multivariate Calculus	4
Phys 25-230/231 Fundamentals of Classical Physics II and Laboratory	5
Departmental approved courses from the areas of business, modern language, statistics or *computer science	4
*CSIS 44-130 Using Computers is a prerequisite course for programming courses.	
<b>Directed General Education Courses</b>	
Math 17-120 Calculus I	4
Phys 25-120/121 Fundamentals of Classical Physics I and Laboratory	5
Biological sciences: one course	4

### **Major in Chemistry, 54 hours: B.S.—No Minor Required**

Required Courses	Semester Hours
Chem 24-114/115 General Chemistry I and Laboratory	4
Chem 24-116/117 General Chemistry II and Laboratory	5
Chem 24-135 Laboratory Safety	2
Chem 24-322/323 Quantitative Analysis and Laboratory	5
Chem 24-342/343 Organic Chemistry I and Laboratory	5
Chem 24-344/345 Organic Chemistry II and Laboratory	5
Chem 24-532/533 Physical Chemistry I and Laboratory	4
Chem 24-534/535 Physical Chemistry II and Laboratory	4
Chem 24-552 Advanced Inorganic Chemistry	3
Chem 24-592 Chemistry Seminar	1

**Collateral Courses**

Math 17-114 General Statistics I	3
Math 17-121 Calculus II	4
Phys 25-230/231 Fundamentals of Classical Physics II and Laboratory	5
Departmental approved electives chosen from physics, chemistry mathematics, biology or *computer science	4

\*CSIS 44-130 Using Computers is a prerequisite course for programming courses.

**Directed General Education Courses**

Math 17-120 Calculus I	4
Phys 25-120/121 Fundamentals of Classical Physics I and Laboratory	5
Biological sciences: one course	4

**Major in Chemistry, 30 hours: B.A.—Minor Required****Required Courses****Semester Hours**

Chem 24-114/115 General Chemistry I and Laboratory	4
Chem 24-116/117 General Chemistry II and Laboratory	5
Chem 24-322/323 Quantitative Analysis and Laboratory	5
Chem 24-342/343 Organic Chemistry I and Laboratory	5
Chem 24-344 Organic Chemistry II	3
Chem 24-592 Chemistry Seminar	1
Chemistry electives from courses numbered above 300	7

**Directed General Education Courses**

Math 17-118 College Algebra	3
Phys 25-110/111 General Physics I and Laboratory OR Phys 25-112/113 General Physics II and Laboratory	4
Biological sciences: one course	4

**Unified Science Major in Chemistry, 63-64 hours: B.S.Ed. Degree,  
Secondary Program—No Minor Required  
(Certifies Grades 9-12, Endorsement Area: Chemistry)****Required Courses in Endorsement Area: Chemistry****Semester Hours**

Chem 24-114/115 General Chemistry I and Laboratory	4
Chem 24-116/117 General Chemistry II and Laboratory	5
Chem 24-135 Laboratory Safety	2
Chem 24-322/323 Quantitative Analysis and Laboratory	5
Chem 24-342/343 Organic Chemistry I and Laboratory	5
Chem 24-499 Special Investigations in Chemistry	1
Chem 24-534 Physical Chemistry II	3
Chem 24-592 Chemistry Seminar	1
Chem 24-362/363 Elementary Biochemistry and Laboratory OR Chem 24-562/563 General Biochemistry and Laboratory	4-5
Chem 24-370 Chemistry Practicum	1

**Required Collateral Courses for the Unified Science Major**

Sci Ed 28-550 History of Science and Technology	3
Bio 04-112/113 General Botany and Laboratory	4
Bio 04-420 Environmental Issues	4
Phys 25-120/121 Fundamentals of Classical Physics I and Laboratory	5
Phys 25-230/231 Fundamentals of Classical Physics II and Lab	5
Geol 27-212 Historical Geology	4



Math 17-114 General Statistics I	3
Math 17-121 Calculus II	4
<b>Total Hours in Major</b>	<b>63-64</b>
<b>Directed General Education Courses</b>	
Math 17-120 Calculus I	4
Bio 04-114/115 General Zoology and Laboratory	4
Geol 27-114/115 General Earth Science and Laboratory	4
<b>Professional Education Requirements</b>	<b>30</b>
Including Sci Ed 28-580 Methods in Secondary School Science (3)	

### **Major in Chemistry Education, 56 hours: B.S.Ed., Secondary Program (Certifies Grades 9-12)**

Required Courses	Semester Hours
Chem 24-114/115 General Chemistry I and Laboratory	4
Chem 24-116/117 General Chemistry II and Laboratory	5
Chem 24-135 Laboratory Safety	2
Chem 24-322/323 Quantitative Analysis and Laboratory	5
Chem 24-342/343 Organic Chemistry I and Laboratory	5
Chem 24-370 Chemistry Practicum	1
Chem 24-499 Special Investigations in Chemistry	1
Chem 24-534/535 Physical Chemistry II and Laboratory	4
Chem 24-562/563 General Biochemistry and Laboratory	5
Chem 24-592 Chemistry Seminar	1
Choose from the following chemistry electives:	
Chem 24-532/533 Physical Chemistry I and Laboratory (4) OR	
Chem 24-344/345 Organic Chemistry II and Laboratory (5)	4-5
<b>Collateral Courses</b>	
Math 17-114 General Statistics I	3
Math 17-121 Calculus II	4
Phys 25-120/121 Fundamentals of Classical Physics I and Laboratory	5
Bio 04-420 Environmental Issues	4
Sci Ed 28-550 History of Science and Technology	3
<b>Directed General Education Courses</b>	
Math 17-120 Calculus I	4
Bio 04-102/103 General Biology and Laboratory	4
Geol 27-114/115 General Earth Science and Laboratory	4
<b>Professional Education Requirements</b>	<b>30</b>
Including Sci Ed 28-580 Methods in Secondary School Science (3)	

### **Major in Alternative Energy, 70 hours: B.S.—No Minor Required**

Required Courses	Semester Hours
Chem 24-114/115 General Chemistry I and Laboratory	4
Chem 24-116/117 General Chemistry II and Laboratory	5
Chem 24-135 Laboratory Safety	2
Chem 24-322/323 Quantitative Analysis and Laboratory	5
Chem 24-342/343 Organic Chemistry I and Laboratory	5
Chem 24-344 Organic Chemistry II	3
Chem 24-510 Fundamentals of Alternative Energy	3
Chem 24-530 Fundamentals of Industrial Biotechnology	3

Chem 24-534 Physical Chemistry II	3
Chem 24-562/563 General Biochemistry and Laboratory	5
Approved elective	2
<b>Collateral Courses</b>	
Math 17-114 General Statistics I	3
Math 17-121 Calculus II	4
Phys 25-230/231 Fundamentals of Classical Physics II and Laboratory	5
Bio 04-140 General Microbiology	4
Bio 04-310 Cell Biology	4
Bio 04-350 Genetics	3
Bio 04-440 Molecular Biology	4
Phys 25-540 Energy Conversions with Alternative Energy	3
<b>Directed General Education Courses</b>	
Math 17-120 Calculus I	4
Bio 04-112/113 General Botany and Laboratory	4
Phys 25-120/121 Classical Physics I and Laboratory	5

## MINORS

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.

### Minor in Chemistry, 24 hours

Required Courses	Semester Hours
*Chem 24-114/115 General Chemistry I and Laboratory	4
Chem 24-116/117 General Chemistry II and Laboratory	5
Chem 24-322/323 Quantitative Analysis and Laboratory	5
Chem 24-342/343 Organic Chemistry I and Laboratory	5
Chemistry electives from courses numbered above 300	5
<b>Directed General Education Courses</b>	
Math 17-118 College Algebra	3
Phys 25-110/111 General Physics I and Laboratory OR Phys 25-112/113 General Physics II and Laboratory	4

\*Cannot be used to fulfill any General Education requirement.

### Minor in Biochemistry, 27-28 hours

Students majoring in chemistry are not permitted to select this minor.

Required Courses	Semester Hours
Chem 24-114/115 General Chemistry I and Laboratory	4
Chem 24-116/117 General Chemistry II and Laboratory	5
Chem 24-342/343 Organic Chemistry I and Laboratory	5
Chem 24-344/345 Organic Chemistry II and Laboratory	5
Chem 24-562/563 General Biochemistry and laboratory	5
<b>Collateral Courses</b>	
Bio 04-310 Cell Biology (4) OR Bio 04-350 Genetics (3)	3-4

**Directed General Education Courses**

Math 17-118 College Algebra	3
Bio 04-102/103 General Biology and Laboratory OR	
Bio 04-112/113 General Botany and Laboratory OR	
Bio 04-114/115 General Zoology and Laboratory OR	
Ag 03-130 Plant Science	4

\*Cannot be used to fulfill any General Education requirement.

NOTE: Students with a Cellular/Molecular Emphasis must take 5 hours of chemistry electives from 300-level or above courses, excluding Chem 24-362/363.

**Minor in Chemistry Education, 24-26 hours: B.S.Ed. (Certifies 9-12)**

Required Courses	Semester Hours
Chem 24-116/117 General Chemistry II and Laboratory	5
Chem 24-135 Laboratory Safety	2
Chem 24-342/343 Organic Chemistry I and Laboratory	5
Chem 24-534/535 Physical Chemistry II and Laboratory (4) OR	
Chem 24-322/323 Quantitative Analysis and Laboratory (5)	4-5
Chem 24-362/363 Elementary Biochemistry and Laboratory (4) OR	
Chem 24-562/563 General Biochemistry and Laboratory (5)	4-5
Chem 24-499 Special Investigations in Chemistry	1
Sci Ed 28-550 History of Science and Technology	3
<b>Directed General Education Course</b>	
Math 17-114 General Statistics I	3
Chem 24-114/115 General Chemistry I and Laboratory	4

**Professional Education Requirements**

Sci Ed 28-580 Methods in Secondary School Science is the required subject field methods course.

NOTE: Students with a non-science education major will also be required to take Sci Ed 28-550 History of Science and Technology.

# Physics / 25

**DEGREE PROGRAMS**

The main objectives of courses in the physics programs are (a) to provide service courses to meet special needs of other science majors, pre-engineering students and teacher education students; (b) to provide general education courses in physics to meet science area requirements in general education for all degree programs; and (c) to provide physics-related training for professions in industry or teaching.

Three different kinds of physics major programs are available for students depending upon the degree program they choose. (Bachelor of Science in Education-Unified Science, or a Major in Physics Education or Bachelor of Science degree).

**Advanced Standing Requirement**

A student can receive advanced standing when he/she has earned a grade of "C" or better in Math 17-120 Calculus I and Phys 25-230/231 Fundamentals of Classical Physics II.

## MAJORS

### Comprehensive Major in Physics, 52 hours: B.S.—No Minor Required

Required Courses	Semester Hours
Phys 25-120/121 Fundamentals of Classical Physics I and Laboratory	5
Phys 25-230/231 Fundamentals of Classical Physics II and Laboratory	5
Phys 25-320/321 Classical Mechanics I and Laboratory	4
Phys 25-330/331 Electricity and Magnetism I and Laboratory	4
Phys 25-332/333 Electronics and Laboratory	4
Phys 25-350/351 Introduction to Modern Physics and Laboratory	4
Phys 25-352 Modern Physics II	3
Phys 25-450/451 Computational Physics and Laboratory	4
Phys 25-479 Physics Undergraduate Research OR	
Phys 25-489 Physics Practicum OR	
Phys 25-499 Special Investigation in Physics OR	
Phys 25-599 Selected Advanced Topics in Physics	2
Physics electives from courses numbered above 300	3
<b>Collateral Courses</b>	
Math 17-121 Calculus II	4
Math 17-321 Multivariate Calculus	4
Math 17-361 Differential Equations	3
CSIS 44-141 Computer Programming I OR	
CSIS 44-149 Scientific Programming	3
<b>Directed General Education Courses</b>	
Math 17-120 Calculus I	4
Chem 24-114/115 General Chemistry I and Laboratory	4
Biological science: one course from general biology, botany or zoology	4

### Unified Science Major in Physics, 65 hours: B.S.Ed. Degree, Secondary Program—No Minor Required (Certifies Grades 9-12, Endorsement Area: Physics)

Required Courses in Endorsement Area: Physics	Semester Hours
Phys 25-120/121 Fundamentals of Classical Physics I and Laboratory	5
Phys 25-230/231 Fundamentals of Classical Physics II and Laboratory	5
Phys 25-350/351 Introduction to Modern Physics and Laboratory	4
Phys 25-489 Physics Practicum	2
Phys 25-352 Modern Physics II	3
Phys 25-332/333 Electronics and Laboratory	4
Phys 25-330/331 Electricity and Magnetism I and Laboratory OR	
Phys 25-320/321 Classical Mechanics and Laboratory	4
Physics Electives (300-level and above)	3
<b>Required Collateral Courses for the Unified Science Major</b>	
Sci Ed 28-550 History of Science and Technology	3
Bio 04-112/113 General Botany and Laboratory	4
Bio 04-420 Environmental Issues	4
Chem 24-114/115 General Chemistry I and Laboratory	4
Chem 24-116/117 General Chemistry II and Laboratory	5
Geol 27-212 Historical Geology	4
Math 17-121 Calculus II	4

Math 17-321 Multivariate Calculus	4
CSIS 44-141 Computer Programming I OR CSIS 44-149 Scientific Programming	3
<b>Total Hours in Major</b>	<b>65</b>
<b>Directed General Education Courses</b>	
Math 17-120 Calculus I	4
Bio 04-114/115 General Zoology and Laboratory	4
Geol 27-114/115 General Earth Science and Laboratory	4
<b>Professional Education Requirements</b>	<b>30</b>
Including Sci Ed 28-580 Methods in Secondary School Science (3)	

### **Major in Physics Education, 53 hours: B.S.Ed., Secondary Program (Certifies Grades 9-12)**

Required Courses	Semester Hours
Phys 25-120/121 Fundamentals of Classical Physics I and Laboratory	5
Phys 25-230/231 Fundamentals of Classical Physics II and Laboratory	5
Phys 25-320/321 Classical Mechanics I and Laboratory OR Phys 25-330/331 Electricity and Magnetism I and Laboratory	4
Phys 25-332/333 Electronics and Laboratory	4
Phys 25-350/351 Introduction to Modern Physics and Laboratory	4
Phys 25-352 Modern Physics II	3
Phys 25-450/451 Computational Physics and Laboratory	4
Phys 25-489 Physics Practicum	2
<b>Collateral Courses</b>	
Bio 04-420 Environmental Issues	4
Sci Ed 28-550 History of Science and Technology	3
Math 17-121 Calculus II	4
Math 17-321 Multivariate Calculus	4
Chem 24-114/115 General Chemistry I and Laboratory	4
CSIS 44-141 Computer Programming I OR CSIS 44-149 Scientific Programming	3
<b>Directed General Education</b>	
Math 17-120 Calculus I	4
Bio 04-102/103 General Biology and Laboratory	4
Geol 27-114/115 General Earth Science and Laboratory	4
<b>Professional Education Requirements</b>	<b>30</b>
Including Sci Ed 28-580 Methods In Secondary School Science (3)	

## **MINORS**

### **Minor in Physics, 24 hours**

Required Courses	Semester Hours
Phys 25-120/121 Fundamentals of Classical Physics I and Laboratory	5
Phys 25-230/231 Fundamentals of Classical Physics II and Laboratory	5
Math 17-121 Calculus II	4
Physics electives from courses numbered above 300	10
<b>Directed General Education Course</b>	
Math 17-120 Calculus I	4

**Minor in Physics Education, 27 hours; B.S.Ed. (Certifies 9-12)**

Required Courses	Semester Hours
Phys 25-120/121 Fundamentals of Classical Physics I and Laboratory	5
Phys 25-230/231 Fundamentals of Classical Physics II and Laboratory	5
Phys 25-350/351 Introduction to Modern Physics and Laboratory	4
Math 17-121 Calculus II	4
Sci Ed 28-550 History of Science and Technology	3
Physics electives from courses numbered above 300	6
<b>Directed General Education Course</b>	
Math 17-120 Calculus I	4
<b>Professional Education Requirement</b>	
Sci Ed 28-580 Methods in Secondary School Science is the required subject field methods course.	

NOTE: Students with a non-science education major will also be required to take Sci Ed 28-550 History of Science and Technology.

## 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.

### Major in Nanoscience, 72 hours: B.S.—No Minor Required

The offering of this major is contingent upon State approval. First planned offering of this major is Fall 2006.

#### Nanoscale Chemistry Emphasis

This is an interdisciplinary major in conjunction with the Departments of Biological Sciences, Chemistry and Physics, and Mathematics and Statistics. Three emphasis areas are available for this major: Nanoscale Biology, Nanoscale Chemistry and Nanoscale Physics.

Required Core Courses	Semester Hours
Bio 04-140 Microbiology	4
Bio 04-310 Cell Biology	4
Bio 04-350 Genetics	3
Bio 04-440 Molecular Biology	4
Math 17-114 General Statistics I	3
Math 17-121 Calculus II	4
Chem 24-114/115 General Chemistry I and Laboratory	4
Chem 24-116/117 General Chemistry II and Laboratory	5
Chem 24-135 Laboratory Safety	2
Chem 24-342/343 Organic Chemistry I and Laboratory	5
Chem 24-562/563 Biochemistry and Laboratory	5
Phys 25-230/231 Classical Physics II and Laboratory	5

Nano 48-314 Nanoscale Science I	4
Nano 48-315 Nanoscale Science II	4
<b>Total Core Requirements</b>	<b>56</b>

**Nanoscale Chemistry Emphasis Required Courses**

Chem 24-344/345 Organic Chemistry II and Laboratory OR Chem 24-322/323 Quantitative Analysis and Laboratory	5
Chem 24-532/533 Physical Chemistry I and Laboratory	4
Chem 24-534 Physical Chemistry II	3
Chem 24-552/555 Advanced Inorganic Chemistry and Inorganic Synthesis Laboratory	4

<b>Total Emphasis Hours</b>	<b>16</b>
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**Directed General Education Courses**

Bio 04-112/113 General Botany and Laboratory	4
Math 17-120 Calculus I	4
Phys 25-120/121 Classical Physics I and Laboratory	5
Phil 39-274 Introduction to Ethics	3

**Nanoscale Biology Emphasis – see the Biological Sciences Department****Major in Nanoscience, 72 hours: B.S.–No Minor Required**

The offering of this major is contingent upon State approval. First planned offering of this major is Fall 2006.

**Nanoscale Physics Emphasis**

This is an interdisciplinary major in conjunction with the Departments of Biological Sciences, Chemistry and Physics, and Mathematics and Statistics. Three emphasis areas are available for this major: Nanoscale Biology, Nanoscale Chemistry and Nanoscale Physics.

<b>Required Core Courses</b>	<b>Semester Hours</b>
Bio 04-140 Microbiology	4
Bio 04-310 Cell Biology	4
Bio 04-350 Genetics	3
Bio 04-440 Molecular Biology	4
Math 17-114 General Statistics I	3
Math 17-121 Calculus II	4
Chem 24-114/115 General Chemistry I and Laboratory	4
Chem 24-116/117 General Chemistry II and Laboratory	5
Chem 24-135 Laboratory Safety	2
Chem 24-342/343 Organic Chemistry I and Laboratory	5
Chem 24-562/563 Biochemistry and Laboratory	5
Phys 25-230/231 Classical Physics II and Laboratory	5
Nano 48-314 Nanoscale Science I	4
Nano 48-315 Nanoscale Science II	4
<b>Total Core Requirements</b>	<b>56</b>

**Nanoscale Physics Emphasis Required Courses**

CSIS 44-141 Computer Programming I	3
Phys 25-350/351 Introduction to Modern Physics I and Laboratory	4
Phys 25-353 Modern Physics II	3

Phys 25-332/333 Electronics and Laboratory OR	
Phys 25-450/451 Computational Physics and Laboratory	4
Phys 25-479 Undergraduate Research	2
<b>Total Emphasis Hours</b>	<b>16</b>

**Directed General Education Courses**

Bio 04-112/113 General Botany and Laboratory	4
Math 17-120 Calculus I	4
Phys 25-120/121 Classical Physics I and Laboratory	5
Phil 39-274 Introduction to Ethics	3

**Nanoscale Biology Emphasis – see the Biological Sciences Department**

## Science Education / 28

### DEGREE PROGRAMS AND SCIENCE TEACHING CERTIFICATION

The major objectives of the science education programs are (a) to provide courses related to the teaching of science to meet the special needs of prospective elementary and secondary school teachers; (b) to provide programs for special science teachers for elementary schools and for science teachers for middle schools and junior high schools; and (c) to provide a graduate program leading to the M.S.Ed. in Science Education for science teachers and science supervisors. (See *Graduate Catalog* for more details about Northwest's master's programs.)

### MINOR

**Minor in Middle School Science, 25 hours: B.S.Ed. degree, Major in Middle School (Certifies Grades 5-9). Additional concentration area is required.**

Required Courses	Semester Hours
*Bio 04-112/113 General Botany and Laboratory OR	
*Bio 04-114/115 General Zoology and Laboratory	4
Geol 27-114/115 General Earth Science and Laboratory	4
Phy Sci 40-122/123 Descriptive Astronomy and Laboratory	4
Phy Sci 40-102/103 The Physical Sciences and Laboratory	4
Chem 24-114/115 General Chemistry and Laboratory OR	
Phys 25-110/111 General Physics and Laboratory OR	
Phys 25-112/113 General Physics II and Laboratory	4
Chem 24-135 Laboratory Safety	2
Sci Ed 28-550 History of Science and Technology	3
<b>Directed General Education Course</b>	
Bio 04-102/103 General Biology and Laboratory	4

**Professional Education Requirement**

Sci Ed 28-582 Methods in Middle School Science is included in Middle School major.

\*Cannot be used to fulfill any General Education requirement.



## PRE-ENGINEERING PROGRAM

Students wishing to prepare for entrance to engineering schools should follow a pre-engineering program. The program for each student will be planned with an advisor to meet the requirements of the particular engineering program. Cooperative programs have been established between Northwest and the University of Missouri at both Columbia and Rolla.

## PRE-ARCHITECTURE (NON-ENGINEERING)

Students desiring to major in architecture may complete one or two years of their curriculum on the Northwest campus. Each student must work closely with the pre-architecture advisor.

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# Course Descriptions

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## Chemistry / 24

### 112 General Chemistry (3 hours)

Beginning course for those who have had no chemistry in high school. Must be taken concurrently with Chem 24-113. 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, SS)

### 113 General Chemistry Laboratory (1 hour)

Beginning laboratory course which must be taken concurrently with Chem 24-112 lecture. Two hours of laboratory and recitation. (F, S, SS)

### 114 General Chemistry I (3 hours)

Beginning course for science majors with a good high school background in chemistry. Must be taken concurrently with Chem 24-115. This course involves a study of basic molecular structure, periodic relationships and a thermodynamic approach to reaction systems. Three hours of lecture and recitation per week. Prerequisite: High school algebra. (F, S)

### 115 General Chemistry I Laboratory (1 hour)

Laboratory course which must be taken concurrently with Chem 24-114. Three hours of laboratory and recitation. (F, S)

### 116 General Chemistry II (4 hours)

A continuation of Chem 24-114. Must be taken concurrently with Chem 24-117. Four hours of lecture and recitation. Prerequisite: Chem 24-114/115 with a minimum grade of "C". (F, S)

### 117 General Chemistry II Laboratory (1 hour)

Laboratory course which must be taken concurrently with Chem 24-116. One three-hour period of laboratory and recitation per week. (F, S)

### 135 Laboratory Safety (2 hours)

A comprehensive introduction to the protocols and practices for working safely in a modern chemistry laboratory. The course seeks to facilitate students' knowledge of institutional, state and federal regulations and an 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 24-114/115 with a minimum grade of "C". (S)

### 200 Special Offerings (1-4 hours)

### 211 Special Topics in Chemistry (1-3 hours)

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. Prerequisites: Chem 24-114/115 with a minimum grade of "C".

### 242 Organic Chemistry (3 hours)

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 24-243. Three hours of lecture. Prerequisite: Chem 24-112 or 114 with a minimum grade of "C". (F)

**243 Organic Chemistry Laboratory (1 hour)**

Laboratory course which must be taken concurrently with Chem 24-242. Three hours of laboratory and recitation. (F)

**322 Quantitative Analysis (3 hours)**

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 24-323. Prerequisites: Chem 24-116/117 with a minimum grade of "C", and Math 17-114. (F)

**323 Quantitative Analysis Laboratory (2 hours)**

Laboratory course which must be taken concurrently with Chem 24-322. Two three-hour periods of laboratory and recitation per week. (F)

**324 An Introduction to Forensic Science (3 hours)**

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.

**342 Organic Chemistry I (3 hours)**

This is a general course in organic chemistry for students majoring in chemistry. It must be taken concurrently with Chem 24-343. Three hours of lecture and recitation. Prerequisite: Chem 24-116/117 with a minimum grade of "C". (F)

**343 Organic Chemistry I Laboratory (2 hours)**

Laboratory course in organic chemistry which must be taken concurrently with Chem 24-342. (F)

**344 Organic Chemistry II (3 hours)**

This is a continuation of Chem 24-342. Three hours of lecture and recitation. Prerequisite: Chem 24-342 with a minimum grade of "C". (S)

**345 Organic Chemistry II Laboratory (2 hours)**

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 24-343 with a minimum grade of "C". (S)

**362 Elementary Biochemistry (3 hours)**

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 24-363. Prerequisite: Chem 24-242 or 342. (S)

**363 Elementary Biochemistry Laboratory (1 hour)**

This is a laboratory course to be taken concurrently with Chem 24-362. One three-hour period per week will be used for laboratory amplification of topics presented in Chem 24-362. (S)

**364 Forensic DNA Science (3 hours)**

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 24-242 or any General Chemistry with permission of instructor.

**370 Chemistry Practicum (1-3 hours)**

The practicum provides students with experience in teaching a chemistry laboratory. Students will assist faculty with the preparation and instruction of chemistry labs. (F, S)

**400 Special Offerings (1-4 hours)****435 Chemistry Internship (1-3 hours)**

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 will be expected.

**450 Macromolecular Structure (4 hours)**

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 24-562/563. (S)

#### **499 Special Investigations in Chemistry (1-3 hours)**

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. Prerequisite: Permission of department chairperson. (F, S, SS)

#### **500 Special Offerings (1-4 hours)**

##### **510 Fundamentals of Alternative Energy (4 hours)**

Provides an overview of the field of alternative energy. The course starts with current world usage and supplies of conventional fuels. Emphasis is then placed on currently used alternative fuels and fuel conversion technologies, as well as the future of alternative energy. Prerequisites: One year of college chemistry and one year of calculus-based physics. (F)

##### **522 Instrumental Analysis (2 hours)**

A study of modern techniques and theories of analysis including an introduction to basic instrumental analysis. Must be taken concurrently with Chem 24-523. Two hours of laboratory and recitation per week. Prerequisite: Chem 24-322/323 with minimum grade of "C". (S, even years)

##### **523 Instrumental Analysis Laboratory (2 hours)**

Must be taken concurrently with Chem 24-522. Two three-hour laboratory periods per week. (S, even years)

##### **530 Fundamentals of Industrial Biotechnology (3 hours)**

Covers the main aspects of industrial biotechnology including the production of bioplastics, biofuels, nutraceuticals, and pharmaceuticals. Prerequisites: Chem 24-510 and Bio 04-520. (S)

##### **531 Fundamentals of Industrial Biotechnology Laboratory (1 hour)**

Hands-on experience with the use of industrial biotechnology to produce industrially-important chemicals including bioplastics, biofuels, nutraceuticals, and pharmaceuticals. One credit hour laboratory. Some pre-lab assignments are due online during semester. Prerequisites: Chem 24-530 and Bio 04-520. (S)

##### **532 Physical Chemistry I (3 hours)**

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, computational chemistry and statistical mechanics. Prerequisites: Chem 24-116/117 with a minimum grade of "C"; Phys 25-120 and Math 17-121.

##### **533 Physical Chemistry I Laboratory (1 hour)**

Laboratory course in physical chemistry that must be taken concurrently with Chem 24-532. (F)

##### **534 Physical Chemistry II (3 hours)**

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 24-116/117 with a minimum grade of "C"; Phys 25-120 and Math 17-121. (S)

##### **535 Physical Chemistry Laboratory II (1 hour)**

Laboratory course in physical chemistry that must be taken concurrently with Chem 24-534. (S)

##### **552 Advanced Inorganic Chemistry (3 hours)**

Modern aspects of inorganic chemistry, includes less familiar oxidation states, coordination chemistry, magnetic properties of elements and compounds, non-aqueous solvents and non-stoichiometric compounds. Three hours of lecture and recitation. Prerequisite: Chem 24-532 with a minimum grade of "C" or concurrently. (S, odd years)

##### **555 Inorganic Synthesis Laboratory (1 hour)**

An introduction to fundamental methods and techniques used in the synthesis and manipulation of inorganic compounds. These techniques will include the synthesis, methods of purification and characterization of inorganic compounds. Prerequisite: Chem 24-532 with minimum grade of "C" or concurrently. (S, odd years)

**562 General Biochemistry (3 hours)**

An introductory course in biochemistry which deals with selected topics in the field. The description and functions 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 24-342 with a minimum grade of "C"; or permission. (F)

**563 General Biochemistry Laboratory (2 hours)**

Experiments illustrating biochemical techniques and principles will be performed. Two three-hour laboratory periods per week. Prerequisite: Chem 24-562 or concurrently. (F)

**580 Special Topics (1-3 hours)**

This is an in-depth study of special topics offered according to student need and interest. Topics include environmental chemistry, atomic and molecular structure, kinetics, industrial chemistry, polymer chemistry, computer applications in the laboratory, surface chemistry and colloidal chemistry. Prerequisites: Chem 24-342 and 532 or permission.

**592 Chemistry Seminar (1 hour)**

Students will prepare written and oral reports on a literature search of a chemistry topic. Prerequisite: Chem 24-532. (F, S)

**Physical Science / 40**

The main objectives of courses in the physical science program are: (a) to provide service courses to meet the special needs of other science majors, teacher education majors and other groups of students; (b) to provide general education courses in physical science to meet science area requirements in general education for all degree programs; and (c) to provide special programs for teacher certification in science.

**102 The Physical Sciences (3 hours)**

This is an introductory, general education course in the physical sciences for students with very little background in science. The topics covered are selected from the fields of chemistry and physics, and their relationships to other sciences, technology and society. Students who have had good science background in high school should not take this course. Also, students who already have college credit in physics or chemistry are not eligible to enroll in this course. Three hours of lecture and discussion per week. Must be taken concurrently with Phys Sci 40-103. (F, S, SS)

**103 Physical Science Laboratory (1 hour)**

A laboratory course which must be taken concurrently with Phys Sci 40-102. Two hours per week. (F, S, SS)

**122 Descriptive Astronomy (3 hours)**

This is an introductory general education 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 Phys Sci 40-123. (F, S)

**123 Descriptive Astronomy Laboratory (1 hour)**

This laboratory meets two hours each week and must be taken concurrently with Phys Sci 40-122. (F, S)

**200 Special Offerings (1-4 hours)****299 Independent Study in the Physical Sciences (1-2 hours)**

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. Prerequisites: Introductory course in physical science and permission of instructor. (F, S)

**300 Special Offerings (1-4 hours)****389 Practicum in Physical Science (1-2 hours)**

This practicum provides students with experience in assisting faculty members with instruction of physical science in classes and laboratories. Prerequisite: Permission of instructor. (F, S)

**500 Special Offerings (1-4 hours)****Physics / 25****110 General Physics I (3 hours)**

This is a laboratory course in general physics designed to provide the necessary background in physics to fill general education 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 17-118 or permission of instructor. (F, SS)

### **111 General Physics I Laboratory (1 hour)**

This laboratory meets two hours each week and must be taken concurrently with Phys 25-110. (F, SS)

### **112 General Physics II (3 hours)**

This is a continuation of Phys 25-110. Major topics covered are electricity, electronics, optics, radioactivity, and atomic and nuclear structure. Three hours of lecture and discussion each week. Prerequisite: Math 17-118 or permission of instructor. (S, SS)

### **113 General Physics II Laboratory (1 hour)**

This laboratory meets a minimum of two hours each week and must be taken concurrently with Phys 25-112. (S, SS)

### **120 Fundamentals of Classical Physics I (4 hours)**

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 17-121 or concurrently. (F)

### **121 Fundamentals of Classical Physics I Laboratory (1 hour)**

The laboratory meets a minimum of two hours each week and must be taken concurrently with Phys 25-120. (F)

### **130 Science and Technology of Musical Sound (3 hours)**

Course examines underlying physics concepts such as waves, vibration and resonance, as well as musical applications including voice, strings, pipes, percussion and computer applications. (F)

### **200 Special Offerings (1-4 hours)**

#### **211 Special Topics in Physics (1-3 hours)**

An in-depth study of special physics topics.

#### **230 Fundamentals of Classical Physics II (4 hours)**

A continuation of Phys 25-120. Major topics include classical electricity, magnetism, electromagnetic waves, light and geometrical and physical optics. Four hours of lecture and discussion each

week. Prerequisites: Phys 25-120/121, Math 17-121 or concurrently. (S)

### **231 Fundamentals of Classical Physics II Laboratory (1 hour)**

This laboratory meets two hours each week and must be taken concurrently with Phys 25-230. (S)

### **320 Classical Mechanics I (3 hours)**

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 25-120/121, Math 17-121 or concurrently. (S, odd years)

### **321 Classical Mechanics I Laboratory (1 hour)**

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 25-120/121, Math 17-121, or concurrently. (S, odd years)

### **322 Statics (3 hours)**

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 25-120/121, Math 17-121 or concurrently. (S)

### **330 Electricity and Magnetism I (3 hours)**

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 25-230/231, Math 17-321. (F, even years)

### **331 Electricity and Magnetism I Laboratory (1 hour)**

This laboratory meets a minimum of two hours each week and must be taken concurrently with Phys 25-330. (F, even years)

### **332 Electronics (3 hours)**

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 25-230/231. (F, odd years)

### **333 Electronics Laboratory (1 hour)**

This laboratory meets a minimum of two hours each week and must be taken concurrently with Phys 25-332. (F, odd years)

### **350 Introduction to Modern Physics (3 hours)**

An introduction to the subjects of photo-electricity, relativity, quantum theory, X-rays, radioactivity, nuclear physics and cosmic radiation. Three hours of lecture and discussion each week. Prerequisites: Phys 25-230/231, Math 17-321 or concurrently. (F, odd years)

### **351 Introduction to Modern Physics Laboratory (1 hour)**

This laboratory meets a minimum of two hours each week and must be taken concurrently with Phys 25-350. (F, odd years)

### **352 Modern Physics II (3 hours)**

A continuation of Phys 25-350. Major topics covered are statistical physics, molecular structure, solid state physics and astrophysics. Three hours of lecture and discussion each week. Prerequisites: Phys 25-350/351. (S, even years)

### **360 Quantum Mechanics (3 hours)**

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 350/351 or Chem 24-532/533, Math 17-321 or concurrently. (S, even years)

### **400 Special Offerings (1-4 hours)**

This is a special, one-time offering. Topics include areas of physics not covered in regular courses.

### **430 Optics (3 hours)**

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 17-121. (F, even years)

### **431 Optics Laboratory (1 hour)**

Laboratory meets at least two hours each week and must be taken concurrently with Phys 25-430. (F, even years)

### **450 Computational Physics (3 hours)**

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 simulations techniques will be studied and the power of these methods to enhance physical understanding will be emphasized. Prerequisites: Phys 25-230/231 and CSIS 44-141 (S, odd years)

### **451 Computational Physics Laboratory (1 hour)**

Laboratory meets at least two hours each week and must be taken concurrently with Phys 25-450. (S, odd years)

### **479 Undergraduate Research (1-3 hours)**

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. Prerequisite: Permission of instructor. (F, S, SS)

### **489 Physics Practicum (1-2 hours)**

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. All physics majors are required to earn at least one semester hour credit in the practicum. Permission of instructor necessary. Physics majors/minors only. (F, S)

### **499 Special Investigations in Physics (1-3 hours)**

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. Permission of instructor necessary. (F, S)

### **500 Special Offerings (1-4 hours)**

### **540 Energy Conversions with Alternative Energy (3 hours)**

Covers the physics behind the different ways that energy can be transformed from one form to another. Emphasis is placed on technologies used in the field of alternative energy. Co-firing biomass with coal is also discussed. Prerequisites: Chem 24-510. (F)

**599 Selected Advanced Topics (1-4 hours)**

Special investigation of experimental or theoretical areas which are not included in the regular courses. Often involves actual research projects. May be elected in successive trimesters. Permission of instructor required. (F, S, SS)

**Nanoscale Science / 48****314 Nanoscale Science I (4 hours)**

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 17-120, 121, Chem 24-114/115, 116/117, Phys 25-120/121, 230/231, Chem 24-342, and junior standing (F, odd years)

**315 Nanoscale Science II (4 hours)**

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 17-120, Bio 04-112/113, 04-350, Phys 25-120/121, 25-230/231, and junior standing. (S, even years)

**Science Education / 28****380 Methods in Elementary School Science (3 hours)**

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: Bio 04-102/103, and Phy Sci 40-102/103 or Phys 25-110/111 or 25-112/113. (F, S)

**400 Special Offerings (1-4 hours)****500 Special Offerings (1-4 hours)****550 History of Science and Technology (3 hours)**

This course will develop a conceptual framework for scientific and technological literacy. The goals of the course will relate 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 major (15 hours in science recommended). (S)

**580 Methods in Secondary School Science (3 hours)**

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 minor admitted to the Teacher Education Program. (F)

**582 Methods in Middle School Science (3 hours)**

A course to assist prospective middle school science teachers with the methods and materials needed in teaching science at the middle school level. Prerequisites: Science major or minor admitted to the Teacher Education Program, Sec. Ed 65-570, 15 hours of science. (F)

# Department of Communication / 29, Theatre / 43 and Languages / 14

**Chairperson:** Theo Ross

**Faculty:** Kent Anzel, Marie-Ginnette Baillargeon, Lori Durbin, John Fisher, Melody Hubbard, Patrick Immel, Nissa Ingraham, Patrick Johnson, Joe Kreizinger, Francisco Martinez, Bayo Oludaja, Amanda Petefish-Schrag, Marcy Roush, Matt Walker, Margaret Whedon

## Statement of Mission

Supporting Northwest's institution-wide vision and mission, the Department of Communication, Theatre, and Languages has a threefold mission: (1) to serve the educational needs of the students of Northwest by providing programs of study that integrate theory and practice in the subject fields of communication, theatre, and languages; (2) to provide quality cultural, communicative and linguistic 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 mission by: (a) attracting students who have the potential to become competent professionals in these various fields, (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 in these fields that are 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 Department of Communication, Theatre, and Languages are provided with both a solid theoretical understanding of the field and numerous opportunities for hands-on competence in the discipline. Student organizations within the department provide additional experiential learning opportunities. Whether majoring in a communication field (Public Relations, Speech Communication or Organizational Communication), a theatre field (Performance, Technical/Design or Comprehensive), a language field (Spanish), 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.

In serving the educational needs of non-major students, the department offers general education courses that sharpen oral presentation and listening skills, develop interpersonal and team skills, increase multicultural awareness and understanding of and respect for diversity, enhance understanding of the cultural and humanistic values of these disciplines and provide service for the College of Education and Human Services and the Booth College of Business and Professional Studies. Further, 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. Providing and supporting multicultural and international events and experiences in the University community is also an aspect of this department. Further, the department makes its expertise available to individuals and organizations through consulting, workshops and training sessions.

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.

The Languages program advocates foreign study in order to broaden the student's multicultural perspective and to allow participation in diverse cultural and linguistic experiences. International study opportunities for students are available in Mexico and through the International Student Exchange Program (ISEP) and other exchanges, organized by the Intercultural and International Center. These study abroad opportunities enhance the strategic mission of providing diversity, competence and relevance to the student's total educational experience at Northwest Missouri State University.

## **DEGREE PROGRAMS**

Communication, Theatre and Languages offers 14 majors, six minors and one area of endorsement.

The comprehensive Bachelor of Arts in Public Relations (54 hours) and Bachelor of Science in Public Relations (60 hours) 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 comprehensive Bachelor of Arts in Speech Communication-Organizational Communication (54 hours) and the Bachelor of Science in Speech Communication-Organizational Communication (60 hours) 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. No minor is required for these programs.

The Bachelor of Arts in Speech Communication (30 hours) and the Bachelor of Science in Speech Communication (36 hours), which require minors in another area, allow students to pursue more traditional liberal arts degrees appropriate as broad foundations for professional pursuits or graduate study.

The comprehensive Bachelor of Science in Theatre (60 hours) does not require an outside minor and provides students with a 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 nonprofessional field.

The comprehensive Bachelor of Science in Education in Speech/Theatre (60 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 (40 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.

Bachelor of Arts and Bachelor of Science degrees are available in Spanish. These require 33 hours of study in the discipline.

The Bachelor of Science in Education degree in Spanish (31 hours) 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.

A Minor in Speech Communication (24 hours) is available for students majoring in other areas who wish to enhance their majors with an introductory preparation in speech communication.

A Minor in Public Relations (24 hours) is available for students majoring in other areas who wish to expand their preparation in the public relations area.

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.

A minor in Spanish is required to complete 21 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.

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.

### **Test-Out Policy**

Test-out is available for Com 29-102, Fundamentals of Oral Communication. For further information, contact the director of the Com 29-102 program.

Test-out is also available for Lang 14-131, 14-132, 14-141 or 14-142. 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, please see pages 20-22 for the specific policy.

All Communication, Theatre, and Languages test-out must be scheduled to be taken during the first four calendar days of the trimester.

### **Language Requirement**

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.

## Portfolio Requirement

Successful completion of all degrees require 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.

## Speech/Theatre Education Directing Requirement

All candidates for the B.S.Ed. degree with a secondary speech/theatre major or certifiable minor must demonstrate their ability to direct a complete theatrical presentation that is approved by and acceptable to department faculty. Opportunities for meeting this requirement will be discussed with the academic advisor and include lab series, second stage, and external venue shows. Th 43-373 Directing must be successfully completed prior to attempting this requirement.

## Advanced Standing Requirement

Students majoring in the programs of communication and theatre must complete Freshman 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 communication, theatre, or languages may appeal by submitting a written petition to the dean of the College of Arts and Sciences through the chair of the department.

## Communication Majors

Students seeking a major or a minor in public relations, organizational communication or speech 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: 1) have no grade lower than "C" in any English composition course, 2) have completed at least six hours in communication at the 100 or 200 level (excluding 29-102), 3) have no grade lower than "C" in any departmental communication course and 4) must request a member of the communication, theatre, and languages faculty as his/her advisor.

Students beginning the second trimester of their sophomore year and/or having successfully met the University requirements must apply for communication advanced standing. Transfer communication majors seeking to enroll in advanced communication courses must meet the same requirements as native students and must apply for communication advanced standing at the time of registration. Upon approval of advanced standing the department chair will assign the student a faculty advisor who is knowledgeable of the student's program.

## Theatre Majors

Students seeking a major in theatre 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 may be enrolled in and pursue advanced theatre courses (numbered 300 and above) until theatre advanced standing has been granted. Theatre 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, a student 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.

Theatre majors may apply for theatre advanced standing during the trimester they are completing the theatre core. Transfer theatre majors seeking to enroll in advanced theatre courses must apply for theatre advanced standing at the time of registration. There will be a review of the transfer students’ portfolio of work in the first week of their first term. Upon approval of advanced standing, the department chair will assign the student a faculty advisor who is knowledgeable of the student’s program.

### Speech/Theatre Education Majors

Students seeking a major in speech/theatre education are expected to demonstrate a capacity to integrate, from the required communication and theatre core courses, principles of common formal language, process of seeing, and perception of content, as well as sufficient commitment to expand their knowledge in order to successfully pursue advanced study.

No speech/theatre education major may be enrolled in and pursue advanced communication or theatre courses (numbered 300 and above) until advanced standing has been granted. Speech/theatre education minors must complete the required communication and theatre core courses with a grade of “C” or better in all core courses prior to being enrolled in and pursuing advanced communication and theatre courses.

To achieve speech/theatre education advanced standing, a student (1) must have no grade lower than “C” in any communication or theatre core course and (2) must demonstrate his/her readiness for advanced communication and theatre courses by satisfactorily responding to written and oral questions related to the required communication and theatre core courses.

Speech/theatre education majors may apply for advanced standing during the trimester they are completing the required communication and theatre core courses. Transfer speech/theatre majors seeking to enroll in advanced communication or theatre courses must apply for advanced standing at the time of registration. There will be a review of each transfer student’s portfolio of work in the first week of their first term.

### 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.

## Communication / 29

### MAJORS

#### Comprehensive Major in Public Relations, 54 hours:

#### B.A.—No Minor Required

Public Relations Core	Semester Hours
Com 29-260 Public Relations Techniques	3
Com 29-360 Principles of Public Relations	3

Com 29-460 Public Relations Case Problems	3
Com 29-432 Organizational Communication	3
Com 29-465 Advanced Public Relations Techniques	3
Com 29-469 Internship in Public Relations	3
Com 29-499 Senior Seminar	1

**Required Courses**

Com 29-230 Public Speaking	3
Com 29-232 Small Group Communication	3
Com 29-329 Propaganda	3
Com 29-331 Persuasive Communication	3
MC 20-130 Writing for Media Professionals	3
MC 20-353 Principles of Print Advertising	3
Acct 51-201 Accounting I	3
Mgmt 54-313 Principles of Management	3
Mkt 55-330 Principles of Marketing	3
Mkt 55-332 Promotion	3
Mkt 55-333 Consumer Behavior OR	
Mkt 55-432 Marketing Research	3

**Two hours selected from the following:**

MC 20-150 Journalism Practicum (Yearbook) (1)	2
MC 20-151 Journalism Practicum (Newspaper) (1)	
MC 20-215 Practicum in Radio (1)	
MC 20-216 Practicum in Television (1)	
MC 20-322 Advanced Practicum in Radio (1)	
MC 20-326 Advanced Practicum in Television (1)	
MC 20-350 Advanced Practicum (Yearbook) (1)	
MC 20-351 Advanced Journalism Practicum (Newspaper) (1)	
MC 20-354 Online Magazine Practicum (1)	
Com 29-152 Public Relations Practicum (1)	
Com 29-352 Advanced Public Relations Practicum (1)	
Approved electives as needed to total 54 hours in the major	
Students are advised to take General Economics I and Introduction to Ethics as General Education requirements.	

**Comprehensive Major in Public Relations, 60 hours:  
B.S.—No Minor Required**

Public Relations Core	Semester Hours
Com 29-260 Public Relations Techniques	3
Com 29-360 Principles of Public Relations	3
Com 29-432 Organizational Communication	3
Com 29-460 Public Relations Case Problems	3
Com 29-465 Advanced Public Relations Techniques	3
Com 29-469 Internship in Public Relations	3
Com 29-499 Senior Seminar	1
<b>Required Courses</b>	
Com 29-230 Public Speaking	3
Com 29-232 Small Group Communication	3
Com 29-329 Propaganda	3
Com 29-331 Persuasive Communication	3

MC 20-130 Writing for Media Professionals	3
MC 20-313 Principles of Broadcast Advertising	3
MC 20-353 Principles of Print Advertising	3
Acct 51-201 Accounting I	3
Mgmt 54-313 Principles of Management	3
Mkt 55-330 Principles of Marketing	3
Mkt 55-332 Promotion	3
Mkt 55-333 Consumer Behavior OR	
Mkt 55-432 Marketing Research	3
MC 20-243 Media Design I	3

**Two hours selected from the following:** 2

MC 20-150 Journalism Practicum (Yearbook) (1)	
MC 20-151 Journalism Practicum (Newspaper) (1)	
MC 20-215 Practicum in Radio (1)	
MC 20-216 Practicum in Television (1)	
MC 20-322 Advanced Practicum in Radio (1)	
MC 20-326 Advanced Practicum in Television (1)	
MC 20-350 Advanced Practicum (Yearbook) (1)	
MC 20-351 Advanced Journalism Practicum (Newspaper) (1)	
MC 20-354 Online Magazine Practicum (1)	
Com 29-152 Public Relations Practicum (1)	
Com 29-352 Advanced Public Relations Practicum (1)	

Approved electives as needed to total 60 hours in the major

Students are advised to take General Economics I and Introduction to Ethics as General Education requirements.

**Comprehensive Major in Speech Communication-Organizational Communication, 54 hours: B.A.—No Minor Required**

Required Courses	Semester Hours
Com 29-226 Principles of Interviewing	3
Com 29-230 Public Speaking	3
Com 29-232 Small Group Communication	3
Com 29-240 Principles of Leadership	3
Com 29-325 Listening Behavior and Skills	3
Com 29-331 Persuasive Communication	3
Com 29-335 Interpersonal Communication	3
Com 29-432 Organizational Communication	3
Com 29-499 Senior Seminar	1

**Five hours to be chosen from the following:** 5

Com 29-329 Propaganda (3)	
Com 29-336 Nonverbal Communication (3)	
Com 29-341 Argumentation and Debate (3)	
Com 29-401 Special Topics (1-3)	
Com 29-467 Internship in Organizational Communication (1-3)	

**Cognate Courses:**

Mgmt 54-313 Principles of Management	3
Mgmt 54-314 Human Resource Management	3
Eng 10-311 Advanced Composition	3
Eng 10-315 Technical Writing	3

Psych 08-313 Industrial and Organizational Psychology	3
CSIS 44-317 Management Information Systems	3
<b>Six hours from the following:</b>	<b>6</b>
Psych 08-373 Learning and Motivation (3)	
Psych 08-453 Contemporary Issues in Industrial and Personnel Work (3)	
Soc 35-365 Social Psychology (3)	
Mgmt 54-417 Organizational Policy and Decision-Making (3)	
Approved electives as needed to total 54 hours in the major	

### **Comprehensive Major in Speech Communication-Organizational Communication, 60 hours: B.S.—No Minor Required**

Required Courses	Semester Hours
Com 29-226 Principles of Interviewing	3
Com 29-230 Public Speaking	3
Com 29-232 Small Group Communication	3
Com 29-240 Principles of Leadership	3
Com 29-325 Listening Behavior and Skills	3
Com 29-331 Persuasive Communication	3
Com 29-335 Interpersonal Communication	3
Com 29-360 Principles of Public Relations	3
Com 29-432 Organizational Communication	3
Com 29-499 Senior Seminar	1
<b>Eight hours to be chosen from the following:</b>	<b>8</b>
Com 29-329 Propaganda (3)	
Com 29-336 Nonverbal Communication (3)	
Com 29-341 Argumentation and Debate (3)	
Com 29-401 Special Topics (1-3)	
Com 29-467 Internship in Organizational Communication (1-3)	
<b>Cognate courses:</b>	
Mgmt 54-313 Principles of Management	3
Mgmt 54-314 Human Resource Management	3
Eng 10-311 Advanced Composition	3
Eng 10-315 Technical Writing	3
Psych 08-313 Industrial and Organizational Psychology	3
CSIS 44-317 Management Information Systems	3
<b>Six hours from the following:</b>	<b>6</b>
Psych 08-373 Learning and Motivation (3)	
Psych 08-453 Contemporary Issues in Industrial and Personnel Work (3)	
Soc 35-365 Social Psychology (3)	
Mgmt 54-417 Organizational Policy and Decision-Making (3)	
Approved electives in communication as needed to total 60 hours in the major	

### **Major in Speech Communication, 30 hours: B.A.—Minor Required**

Required Courses	Semester Hours
Com 29-230 Public Speaking	3
Com 29-232 Small Group Communication	3
Com 29-325 Listening	3
Com 29-331 Persuasive Communication	3
Com 29-335 Interpersonal Communication	3

Com 29-341 Argumentation and Debate	3
Com 29-343 Rhetoric of American Issues	3
Com 29-499 Senior Seminar	1
Approved electives in communication as needed to total 30 hours in the major	

### **Major in Speech Communication, 36 hours: B.S.–Minor Required**

Required Courses	Semester Hours
Com 29-230 Public Speaking	3
Com 29-232 Small Group Communication	3
Com 29-250 Voice and Diction	3
Com 29-325 Listening Behavior and Skills	3
Com 29-329 Propaganda	3
Com 29-331 Persuasive Communication	3
Com 29-335 Interpersonal Communication	3
Com 29-341 Argumentation and Debate	3
Com 29-343 Rhetoric of American Issues	3
Com 29-499 Senior Seminar	1
Approved electives in communication as needed to total 36 hours in the major	

## **MINORS**

### **Minor in Public Relations, 24 hours**

Required Courses	Semester Hours
Com 29-230 Public Speaking	3
Com 29-232 Small Group Communication	3
Com 29-260 Public Relations Techniques	3
Com 29-360 Principles of Public Relations	3
Com 29-432 Organizational Communication	3
Com 29-465 Advanced Public Relations Techniques	3
Com 29-460 Public Relations Case Problems	3
<b>Three hours to be chosen from:</b>	3
Com 29-329 Propaganda (3)	
Com 29-331 Persuasive Communication (3)	
Com 29-335 Interpersonal Communication (3)	
Com 29-341 Argumentation and Debate (3)	
Com 29-469 Internship in Public Relations (1-3)	

### **Minor in Speech Communication, 24 hours**

Required Courses	Semester Hours
Com 29-230 Public Speaking	3
Com 29-232 Small Group Communication	3
Com 29-325 Listening Behavior and Skills	3
Com 29-335 Interpersonal Communication	3
Com 29-341 Argumentation and Debate	3
Com 29-343 Rhetoric of American Issues	3
Approved electives in communication as needed to total 24 hours in the minor	



# Theatre / 43

<b>Core Requirements for Majors and Minors in Theatre</b>	<b>Semester Hours</b>
Th 43-105 Directed Practicum in Theatre (1)—enroll 3 trimesters	3
Th 43-120 Fundamentals of Theatre Production	3
Th 43-150 Stagecraft	3
Th 43-225 Oral Interpretation	3
Th 43-230 Acting	3
<b>Total Hours</b>	<b>15</b>

## MAJORS

### Major in Theatre, 30 hours: B.A.—Minor Required

<b>Required Courses</b>	<b>Semester Hours</b>
Theatre Core Requirements	15
Th 43-373 Directing	3
Th 43-395 Scene Design	3
Th 43-498 Senior Seminar	2
Th 43-499 Senior Project/Recital	1
<b>Two of the following courses:</b>	<b>6</b>
Th 43-308 Theatre History I (3)	
Th 43-310 Theatre History II (3)	
Th 43-312 Theatre History III (3)	

### Comprehensive Major in Theatre, 60 hours: B.S.—No Minor Required

<b>Required Courses</b>	<b>Semester Hours</b>
Theatre Core Requirements	15
Th 43-308 Theatre History I	3
Th 43-310 Theatre History II	3
Th 43-312 Theatre History III	3
Th 43-373 Directing	3
Th 43-498 Senior Seminar	2
Th 43-499 Senior Project/Recital	1
Specialization option (see list below)	21-24
Approved Theatre electives as needed to total 60 hours	6-9
<b>Performance Option (21-24 hours)</b>	
Th 43-258 Stage Makeup (3)	
Th 43-330 Advanced Acting (3)	
Th 43-335 Acting Period Styles and Techniques (3)	
Th 43-426 Interpreter's Theatre (3)	
Th 43-305 Independent Practicum in Theatre (1)—enroll 3 trimesters	
Courses outside of theatre in performance-related areas, approved by advisor (Selected from PE 22-165, 208, 209, 213, 214, 262*, Com 29-250, Mus 19-201*, Applied Voice, Applied Piano, and various music performance groups or other related courses approved by the department) (6-9)	
<b>Technical Theatre and Design Option (21-24 hours)</b>	
Th 43-240 Drafting for the Stage (3)	
Th 43-354 Stage Lighting (3)	

- Th 43-391 Costuming (3)
- Th 43-395 Scene Design (3)
- Th 43-305 Independent Practicum in Theatre (1)—enroll 3 trimesters
- Courses outside of theatre in technical and design-related areas, approved by advisor (selected from Art 13-120, 191, 201, 343; FCS 15-160, 260 or other related courses approved by the department) (6-9)

\*Cannot be used to fulfill any General Education requirement.

## MINOR

### Minor in Theatre, 24 hours

Required Courses	Semester Hours
Theatre Core Requirements	15
Th 43-373 Directing	3
<b>Two of the following courses:</b>	6
Th 43-308 Theatre History I (3)	
Th 43-310 Theatre History II (3)	
Th 43-312 Theatre History III (3)	

## SPEECH/THEATRE EDUCATION MAJORS

### Comprehensive Major in Speech/Theatre Education, 60 hours: B.S.Ed.—No Minor Required (Certifies Grades 9-12)

Required Courses	Semester Hours
Com 29-133 Practicum in Debate and Forensics AND/OR Com 29-338 Advanced Practicum in Debate and Forensics	2
Com 29-230 Public Speaking	3
Com 29-232 Small Group Communication	3
Com 29-335 Interpersonal Communication	3
Com 29-341 Argumentation and Debate	3
Th 43-120 Fundamentals of Theatre Production	3
Th 43-225 Oral Interpretation	3
Th 43-230 Acting	3
Th 43-373 Directing	3
<b>Two hours of theatre practicum:</b>	2
Th 43-105 Directed Practicum in Theatre (1)	
Th 43-305 Independent Practicum in Theatre (1)	
<b>Three hours of theatre history from:</b>	3
Th 43-308 Theatre History I (3)	
Th 43-310 Theatre History II (3)	
Th 43-312 Theatre History III (3)	
<b>Three hours of theatre design from:</b>	3
Th 43-354 Stage Lighting (3)	
Th 43-395 Scene Design (3)	
Th 43-391 Costuming (3)	
<b>Twelve to fifteen hours of speech communication electives from:</b>	12-15
Com 29-133 Practicum in Debate and Forensics (1)	
Com 29-150 Introduction to Communication Disorders (3)	
Com 29-250 Voice and Diction (3)	

- Com 29-325 Listening Behaviors and Skills (3)
- Com 29-329 Propaganda (3)
- Com 29-331 Persuasive Communication (3)
- Com 29-338 Advanced Practicum in Debate and Forensics (1)

**Nine to fifteen hours of approved theatre electives** 9-15

Approved speech, theatre and mass communication electives as needed to total 60 hours in the major.

This major, when completed under the B.S.Ed. degree, Secondary Program, meets Missouri teacher certification standards for speech/theatre secondary level.

Students must take Com 29-480 Methods in Teaching Speech/Theatre in the Secondary School as part of their professional education requirements.

### **Major in Speech/Theatre Education 40 hours: B.S.Ed.– Minor Required (Certifies Grades 9-12)**

Required Courses	Semester Hours
Com 29-133 Practicum in Debate and Forensics AND Com 29-338 Advanced Practicum in Debate and Forensics	2
Com 29-230 Public Speaking	3
Com 29-232 Small Group Communication	3
Com 29-335 Interpersonal Communication	3
Com 29-341 Argumentation and Debate	3
Th 43-120 Fundamentals of Theatre Production	3
Th 43-225 Oral Interpretation	3
Th 43-230 Acting	3
Th 43-373 Directing	3
Theatre Practicum (select 1 hour of Th 43-105 AND 1 hour of Th 43-305)	2
Theatre History (select from Th 43-308, 310, 312)	3
Theatre Design (select from Th 43-354, 391, 395)	3
<b>Six hours of speech communication electives from:</b>	<b>6</b>
Com 29-250 Voice and Diction (3)	
Com 29-325 Listening Behavior and Skills (3)	
Com 29-329 Propaganda (3)	

This major, when completed under the B.S.Ed. degree, Secondary Program, meets Missouri teacher certification standards for speech/theatre secondary level.

Students must take Com 29-480 Methods in Teaching Speech/Theatre in the Secondary School as part of their professional education requirements.

## **MINOR**

### **Minor in Speech/Theatre Education, 32 hours**

Certifies Grades 9-12 when completed on a secondary education degree. See Professional Education Requirements.

Required Courses	Semester Hours
Com 29-133 Practicum in Debate and Forensics OR Com 29-338 Advanced Practicum in Debate and Forensics	1

Com 29-230 Public Speaking	3
Com 29-232 Small Group Communication	3
Com 29-335 Interpersonal Communication	3
Com 29-341 Argumentation and Debate	3
Th 43-105 Directed Practicum in Theatre	1
Th 43-120 Fundamentals of Theatre Production	3
Th 43-225 Oral Interpretation	3
Th 43-230 Acting	3
Th 43-373 Directing	3
Theatre History (select from Th 43-308, 310, 312)	3
Theatre Design (select from Th 43-354, 391, 395)	3

Students must take Com 29-480 Methods in Teaching Speech/Theatre in the Secondary School as part of their professional education requirements.

### **Area of Endorsement in Drama/Speech for the Middle School, 24 hours**

Certifies Grades 5-9 when completed with the Middle School Major

Required Courses	Semester Hours
Th 43-120 Fundamentals of Theatre Production	3
Th 43-225 Oral Interpretation OR	
Th 43-230 Acting	3
Th 43-373 Directing	3
Theatre History (select from Th 43-308, 310, 312)	3
Com 29-230 Public Communication	3
Com 29-232 Small Group Communication OR	
Com 29-325 Listening Behaviors and Skills	3
Com 29-335 Interpersonal Communication	3
Com 29-341 Argumentation and Debate	3

The completion of the above requirements meets the Drama/Speech Area of Endorsement for use with Missouri Middle School Certification, grades 5-9. Students must take Com 29-480 Methods of Teaching Speech/Theatre in the Secondary School. Advisement for Middle School Certification is provided by the Department of Curriculum and Instruction in the College of Education and Human Services. See that section of this catalog.

## **Languages / 14**

### **MAJOR**

#### **Major in Spanish, 31 hours: B.A., B.S., B.S.Ed., (Certifies Grades K-12)–Minor Required**

Required Courses	Semester Hours
*Lang 14-242 Intermediate Spanish for Communication and Culture I (Appropriate for most students with four or more years of high school Spanish.)	3
Lang 14-243 Intermediate Spanish for Communication and Culture II	3
Lang 14-244 Conversation in Spanish (May be taken concurrently with Lang 14-242 or 243.)	3

Lang 14-485 Senior Seminar	1
<b>Advanced Electives</b>	<b>21</b>
(Minimum of 21 hours from the following; at least 15 hours are to be taken on the Northwest campus or from Northwest faculty. Courses may be taken concurrently.)	
Lang 14-342 Advanced Spanish I (3)	
Lang 14-343 Advanced Spanish II (3)	
Lang 14-348 Spanish History and Culture (3)	
Lang 14-349 Contemporary Mexico (3)	
Lang 14-443 Spain in the 19th and 20th Centuries (3)	
Lang 14-444 Spanish-American Literature (3)	
Lang 14-445 Medieval and Golden Age Literature of Spain (3)	
Lang 14-446 Practicum in Spanish Studies (1-3)	

Students must take Lang 14-480 Methods in Teaching Modern Language as part of their professional education requirements.

\*Lang 14-141 and 14-142 are prerequisite courses. These do not count toward the major.

## MINORS

### Minor in Deaf Studies, 23 hours

Required Courses	Semester Hours
Lang 14-151 Intro to Conversational American Sign Language and Deaf Culture	3
Lang 14-251 Sign Language I	3
Lang 14-252 Sign Language II	3
Lang 14-351 Sign Language III	3
Lang 14-451 Sign Language IV	3
Com 29-336 Nonverbal Communication	3
Com 29-553 Language, Speech and Hearing of the Exceptional Child and Adult	3
Read/Sp 66-371 Introduction to Special Education	2

### Minor in Spanish, 21 hours

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

Required Courses	Semester Hours
*Lang 14-242 Intermediate Spanish for Communication and Culture I (Appropriate for most students with four or more years of high school Spanish.)	3
Lang 14-243 Intermediate Spanish for Communication and Culture II	3
Lang 14-244 Conversation in Spanish (May be taken concurrently with Lang 14-242 or 243.)	3
<b>Advanced Electives</b>	<b>12</b>
(Minimum of 12 hours from the following, of which at least 6 hours are to be taken on the Northwest campus or from Northwest faculty. These courses may be taken concurrently.)	
Lang 14-342 Advanced Spanish I (3)	
Lang 14-343 Advanced Spanish II (3)	
Lang 14-348 Spanish History and Culture (3)	

- Lang 14-349 Contemporary Mexico (3)
- Lang 14-443 Spain in the 19th and 20th Centuries (3)
- Lang 14-444 Spanish-American Literature (3)
- Lang 14-445 Medieval and Golden Age Literature of Spain (3)
- Lang 14-446 Practicum in Spanish Studies (1-3)

Students must take Lang 14-480 Methods in Teaching Modern Language as part of their professional education requirements.

\*Lang 14-141 and 14-142 are prerequisite courses. These do not count toward the minor.

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## Course Descriptions

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### Speech Communication / 29

#### **200 Special Offerings (1-4 hours)**

Courses offered on only one occasion or variable issue-oriented courses which have the content described in the title. Credit and prerequisites as announced.

#### **400 Special Offerings (1-4 hours)**

Courses offered on only one occasion or variable issue-oriented courses which have the content described in the title. Credit and prerequisites as announced.

#### **401 Special Topics (1-3 hours)**

Provides concentrated study in special areas within Speech Communication. Topics vary trimester to trimester.

#### **500 Special Offerings (1-4 hours)**

Courses offered on only one occasion or variable issue-oriented courses which have the content described in the title. Credit and prerequisites as announced.

### APPLIED COMMUNICATION

#### **152 Public Relations Practicum (1 hour)**

Practice in the principles of public relations. The student will participate in a student team to work in cooperation with an organization to plan and promote an event to a targeted public. (F, S)

#### **240 Principles of Leadership (3 hours)**

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)

#### **260 Public Relations Techniques (3 hours)**

Introduction to the communication techniques of public relations including internal and external interpersonal communication networks and mediated communication. (F, S)

#### **352 Advanced Public Relations Practicum (1 hour)**

Practice in the principles of public relations. The student will work in cooperation with an organization to plan and promote an event to a targeted public. (F, S)

#### **360 Principles of Public Relations (3 hours)**

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. (S)

#### **432 Organizational Communication (3 hours)**

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)

#### **460 Public Relations Problems: Cases, Concepts and Campaigns (3 hours)**

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 29-360. (F)

### **465 Advanced Public Relations Techniques (3 hours)**

A study of the legal aspects involved in public relations law, including history and rationale of the First Amendment, defamation, privacy, copyright, advertising, contract, warranties, corporations and business regulations. Special attention is paid in the discussion of each area to the ethical issues inherent in the area, and there is a separate course section on the "Code of Professional Standards for the Practice of Public Relations." (S)

### **467 Internship in Organizational Communication (1-3 hours)**

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.

### **468 Internship in Speech Communication (1-3 hours)**

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.

### **469 Internship in Public Relations (1-3 hours)**

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. (F, S, SS)

### **480 Methods of Teaching Speech/Theatre in the Secondary School (3 hours)**

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. (F)

### **499 Senior Seminar (1 hour)**

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 achieve at or above the 50th percentile and score a level 1 or higher in two of

the three proficiency areas on the academic profile exam, and have the permission of the department chair in order to enroll. (F, S)

### **537 Independent Study in Speech (1-2 hours)**

### **538 Independent Study in Speech Education (1-2 hours)**

## **COMMUNICATION PERFORMANCE**

### **101 Oral Communication for International Students (3 hours)**

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 29-102 requirement.

### **102 Fundamentals of Oral Communication (3 hours)**

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)

### **133 Practicum in Debate and Forensics (1-4 hours)**

Participation in intercollegiate debate and forensics activities. May be repeated for up to four hours. (F, S)

### **226 Principles of Interviewing (3 hours)**

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. (F, alt, years)

### **230 Public Speaking (3 hours)**

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)

### **232 Small Group Communication (3 hours)**

A study of group processes in the problem-solving setting. The focus is on problem solving, leadership, role development, cohesiveness and effective group participation. Group participation outside the classroom will be expected. (F, S)

**338 Advanced Practicum in Debate and Forensics (1-4 hours)**

Participation in intercollegiate debate and forensics activities. Prerequisite: Junior or senior standing. May be repeated for up to four hours. (F, S)

**341 Argumentation and Debate (3 hours)**

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)

**COMMUNICATION THEORY****225 Intercultural Communication (3 hours)**

An analysis of how culture interacts with communication and an examination of issues and problems encountered when communicating across cultures. (F, S)

**235 Introduction to Classical Rhetoric (3 hours)**

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, alt. years)

**325 Listening Behavior and Skills (3 hours)**

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 29-102. (S)

**331 Persuasive Communication (3 hours)**

A study of the pervasiveness of persuasive communication in today's world. Theories of persuasion are introduced and used to evaluate contemporary persuasive messages as well as to create persuasive messages. Special emphasis is placed on audience analysis and media techniques. (S)

**335 Interpersonal Communication (3 hours)**

A study of the theories of interpersonal communication. Experiences in the development of communication, anxiety awareness, verbal con-

frontation, reinforcement and interpersonal trust are included. (F)

**336 Nonverbal Communication (3 hours)**

An analysis of the fundamental forms of non-verbal 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)

**343 Rhetoric of American Issues (3 hours)**

A survey of famous American orators and issues. The rhetorical and historical contexts of selected speeches and issues are emphasized. (S, alt. years)

**539 Independent Study in Speech Media (1-2 hours)****567 Special Topics in Contemporary Issues (1-4 hours)****568 Special Topics in Rhetoric (1-4 hours)****SPEECH SCIENCE****250 Voice and Diction (3 hours)**

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. (F, alt. years)

**329 Propaganda (3 hours)**

Theory and practice of the symbolic means of manipulation. Analysis of verbal and visual propaganda campaigns, emphasizing hate speech. (F)

**351 Normal Language Development (2 hours)**

A study of the normal processes of developmental progression by which the child acquires the syntax, semantics, morphology and phonology of language. (SS)

**553 Language, Speech, and Hearing of the Exceptional Child and Adult (3 hours)**

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)

**566 Special Topics in Speech Science (1-4 hours)**

## Theatre / 43

**200 Special Offerings (1-4 hours)**

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.

**400 Special Offerings (1-4 hours)**

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.

**401 Special Topics (1-3 hours)**

Provides concentrated study in special areas within theatre. Topics vary trimester to trimester. Prerequisites as announced.

**498 Senior Seminar (2 hours)**

Examines current theatre trends and practices preparing the student for entry into the field or advanced study. This course includes a formal presentation of the student's Professional Portfolio. Prerequisite: Must achieve at or above the 50<sup>th</sup> percentile and score a level 1 or higher in two of the three proficiency areas on the academic profile exam and permission of department chairperson. (F)

**499 Senior Project/Recital (1 hour)**

A public performance or exhibition of materials comprising the student's area of emphasis in theatre. Prerequisites: Th 43-498 or concurrent enrollment and permission of department chairperson. (F, S)

**500 Special Offerings (1-4 hours)**

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.

## HISTORY, THEORY AND DRAMATURGY

**101 Theatre Appreciation (3 hours)**

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)

**308 Theatre History I (3 hours)**

Examines the evolution of the theatre from its origins through the Renaissance as a reflection or an influence on man. (F, alt. years)

**310 Theatre History II (3 hours)**

Studies the development of the theatre from the Restoration to the 20th century with emphasis on social, economic and political influences upon theatrical production styles. (S, alt. years)

**312 Theatre History III (3 hours)**

A survey of modern trends in Western theatre and drama including an examination of the relationships among playwright, actor, audience, designer and director. (F, alt. years)

**460 Creative Dramatics (3 hours)**

Introduces the methods and techniques of teaching dramatic improvisations to be used by children. (S, alt. years)

**574 Independent Study in Dramaturgy (1-2 hours)**

## PERFORMANCE AND INTERPRETATION

**225 Oral Interpretation (3 hours)**

Studies the principles of oral interpretation through the literary analysis and performance of poetry, prose and drama. (S)

**230 Acting (3 hours)**

Provides training in fundamental principles and techniques of acting including the proper use of voice and body. (F)

**330 Advanced Acting (3 hours)**

Concentrated study in character analysis and acting methods. Prerequisite: Th 43-230 or permission of instructor. (S, alt. years)

**335 Acting Period Styles and Techniques (3 hours)**

Provides training in the performance of character roles from various periods of dramatic literature and genres. Prerequisite: Th 43-230 or permission of instructor. (S, alt. years)

**373 Directing (3 hours)**

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: Th 43-120 and 230 or permission of instructor. (F)

**426 Interpreter's Theatre (3 hours)**

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)

**468 Internship in Theatre Performance (1-3 hours)**

Professional experience in theatre performance. The particular interests of the students are addressed through practical application with theatre practitioners. Prerequisite: Permission of instructor.

**572 Independent Study in Acting (1-2 hours)****573 Independent Study in Directing (1-2 hours)****DESIGN AND PRODUCTION****105 Directed Practicum in Theatre (1 hour)**

Involves participation in various practical aspects of play production. May be repeated for a total of four semester hours. (F, S)

**120 Fundamentals of Theatre Production (3 hours)**

Provides a knowledge of the basic skills and crafts related to all areas of technical theatre. (F)

**150 Stagecraft (3 hours)**

Studies the theory and practice in planning, construction, painting, assembly and shifting of scenery and properties for the stage and television. Prerequisite: Th 43-120 or permission of instructor. (S)

**220 Techniques of Computer Aided Drafting (3 hours)**

Provides the student with a basic understanding of the skills, software and applications of Computer Aided Drafting programs including methods of basic two-dimensional drawing, tools, editing, file management, dimensioning, model space and short cuts (within the program). Appropriate for a variety of majors. (S, alt. years)

**240 Drafting for the Stage (3 hours)**

Introduces the student to basic drafting techniques used in the specific areas of theatre production. Prerequisite: Th 43-150 or concurrent enrollment. (S, alt. years)

**258 Stage Makeup (3 hours)**

Acquaints the student with basic principles of the art and technique of makeup, assisting the actor in the development and projection of his or her character on stage. (F)

**305 Independent Practicum in Theatre (1 hour)**

Involves advanced participation in various practical aspects of play production. Prerequisite: Th 43-105. May be repeated for a total of four semester hours. (F, S)

**354 Stage Lighting (3 hours)**

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: Th 43-120 or permission of instructor. (F, alt. years)

**391 Costuming (3 hours)**

Examines the use of clothing and stage costumes by major periods through style and design. Prerequisite: Th 43-120 or permission of instructor. (S, alt. years)

**395 Scene Design (3 hours)**

Provides the student with a basic knowledge of the techniques and methods for designing scenery for the theatre, opera, musical, ballet and television. Prerequisites: Th 43-120, 150, 240, or permission of instructor. (S, alt. years)

**440 Preparing Repertory (3 hours)**

Provides instruction and training in the methods required for preparing a repertory theatre season. May be repeated for a total of nine semester hours. (SS)

**445 Summer Repertory Theatre (3 hours)**

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. (SS)

**469 Internship in Technical Theatre (1-3 hours)**

Professional experience in technical theatre. The particular interests of the students are addressed through practical application with theatre practitioners. Prerequisite: Permission of instructor.

**509 Advanced Theatre Production (1-3 hours)**

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. (SS)

**575 Independent Study in Technical Theatre (1-2 hours)****Languages / 14****191 Modern Language Communication and Cultures I (3 hours)**

Initiates awareness of non-English speaking cultures along with the ability to understand simple conversation and to communicate basic needs and describe activities. Designed for study of language other than French or Spanish. Intended for students with no previous study of the language. Does not count toward a Modern Language major or minor.

**192 Modern Language Communication and Cultures II (3 hours)**

Develops comprehension and communication skills, including the ability to discuss opinions and past events, and introduces students to non-English speaking life and culture. Designed for study of languages other than French or Spanish. Does not count toward a Modern Language major or minor.

**200 Special Offerings (1-4 hours)**

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.

**400 Special Offerings (1-4 hours)**

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.

**460 Advanced Studies in Modern Languages (3 hours)**

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

**480 Methods in Teaching Modern Languages (2 hours)**

A presentation of materials and methods used in teaching foreign languages. (F)

**485 Senior Seminar for Modern Language Majors (1 hour)**

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 achieve at or above the 50<sup>th</sup> percentile and score a level 1 or higher in two of the three proficiency areas on the academic profile exam, have the permission of the department chair and have successfully completed at least one 400-level course. (F, S)

**500 Special Offerings (1-4 hours)**

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.

**FRENCH****131 French: Communication and Culture I (3 hours)**

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. Does not count toward minor in French. (F)

**132 French: Communication and Culture II (3 hours)**

Develops comprehension and communication skills, including the ability to discuss opinions and

past events, and introduces students to French life and culture. Prerequisite: Lang 14-131 or equivalent in high school French. (S)

**232 Intermediate French for Communication and Culture I (3 hours)**

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 14-132 or equivalent. (F)

**233 Intermediate French for Communication and Culture II (3 hours)**

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 14-232 or equivalent. (S)

**439 Independent Study in French (1-2 hours)**

Offered by special arrangement and petition approved by the modern language faculty. May be repeated for a maximum of six semester hours. (F, S)

**SPANISH**

**141 Spanish: Communication and Culture I (3 hours)**

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)

**142 Spanish: Communication and Culture II (3 hours)**

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 14-141 or equivalent in high school Spanish. (F, S)

**242 Intermediate Spanish for Communication and Culture I (3 hours)**

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 14-142 or equivalent. (F, S)

**243 Intermediate Spanish for Communication and Culture II (3 hours)**

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 14-242 or equivalent. (F, S)

**244 Conversation in Spanish (3 hours)**

Intensive practice in conversation, with emphasis on practical vocabulary and developing fluency and ease of expression. Prerequisite: Lang 14-242 or 243 or equivalent. (F, S)

**342 Advanced Spanish I (3 hours)**

Practice in correct idiomatic and effective written communication, from the business letter to the essay. Prerequisite: Lang 14-243 or equivalent. (F)

**343 Advanced Spanish II (3 hours)**

A continuation of Lang 14-342. May include a short research paper. Prerequisite: Lang 14-243 or equivalent. (S)

**348 Spanish History and Culture (3 hours)**

The history and culture of Spain as a background to national identity. Course is taught in Spanish. Prerequisite: Lang 14-243. (F)

**349 Contemporary Mexico (3 hours)**

Study of Mexican history and culture from 1900 as seen by writers since 1950. Prerequisite: Lang 14-243. (SS)

**443 Spain in the 19th and 20th Centuries (3 hours)**

Acquaintance with Spanish culture through reading and discussion of representative literary works by authors such as Bécquer, Galdós, Unamuno, Baroja, Benavente, Lorca, Guillén, Sender, Aleixandre and others. Prerequisite: Lang 14-243 or equivalent. (S, alt. years)

**444 Spanish-American Literature (3 hours)**

A survey of the most important works of Spanish-American literature from the conquest to the present, including selections from Cortés, Sor Juana, Palma, Martí, Silva, Darío, Neruda, Borges, Sábato, García Márquez and others. Prerequisite: Lang 14-243. (S, alt. years)

**445 Medieval and Golden Age Literature of Spain (3 hours)**

A survey of the most important works of Spanish literature from the 12th through the 17th centuries, including selections from such monuments of Spanish cultures as the Poema del Cid, the Libro de Buen Amor, La Celestina, and Don Quijote, works by Lope de Vega, Calderón and others. Prerequisite: Lang 14-243. (F, alt. years)

**446 Practicum in Spanish (1-3 hours)**

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. (F, S)

**449 Independent Study in Spanish (1-2 hours)**

Offered by special arrangement and petition approved by the foreign language faculty. May be repeated for a maximum of six semester hours. (F, S)

**SIGN LANGUAGE**

**151 Introduction to Conversational American Sign Language and Deaf Culture (3 hours)**

An introduction to the basic skills in production and comprehension of American Sign Language. The course initiates awareness of deaf culture along with the ability to understand simple conversation and ASL grammar. (F, S, SS)

**251 Sign Language I (3 hours)**

Continues the development of ASL by building upon the vocabulary and grammatical rules of American Sign Language. Students will develop rudimentary competency in expressive and receptive skills in ASL, as well as developing a greater understanding of deaf culture. Prerequisites: Lang 14-151 or permission of instructor. (F, S, SS)

**252 Sign Language II (3 hours)**

Integrates and refines expressive and receptive skills in ASL, including the use of complex sentence structure. Course is primarily taught in American Sign Language. Prerequisites: Lang 14-251 or permission of instructor. (F, S)

**351 Sign Language III (3 hours)**

Provides the opportunity to develop a competence in performing, interpreting, and transliterating skills through exercises that enhance and apply American Sign Language. Course taught entirely in American Sign Language with no voice. Prerequisites: Lang 14-252 or permission of instructor. (S)

**451 Sign Language IV (3 hours)**

Emphasizes advanced linguistic aspects of ASL and encourages contact with the deaf community. Students will translate written text into ASL and improve ability to make formal presentations in ASL. Prerequisites: Lang 14-351 or permission of instructor. (F)

# Department of English / 10

**Interim Chairperson:** Michael Hobbs

**Faculty:** Rebecca Aronson, Wayne Chandler, John Gallaher, Robin Gallaher, Terri Johnston, Paul Jones, Bruce Litte, Jeffrey Loomis, Nancy Mayer, Beth Richards, Brenda Ryan, Steven Shively, William Waters

## Statement of Mission

The Department of English prepares students for personal growth and development by enhancing their imaginative, critical thinking and communication skills.

English majors, minors and graduate students examine literature, literary criticism, writing techniques and language from a wide range of perspectives. They explore the nature of culturally diverse ideas, powerful emotions and human expression. General Education courses in writing and literature prepare all undergraduates for more effective thinking, learning, analysis and communication.

Advanced elective courses help students from all disciplines become more insightful and imaginative readers and writers and more effective creators, diagnosticians and problem solvers.

## DEGREE PROGRAMS

The Department of English offers three majors, two undergraduate degree programs and three minors.

The 30-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, research, publishing, editing, advertising, journalism, technical writing and free-lance writing, and for management and other leadership positions requiring interpretive, diagnostic and analytic problem-solving abilities.

The 37-hour Bachelor of Science in Education in English and the 55-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. degree, Secondary Program, meets Missouri secondary school English teaching certification standards.

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 31-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.

### Test-Out Policy

Students may challenge their placement in Eng 10-110 Developmental English by passing a writing test. Students should contact the department for additional details. Credit may be granted for AP, CLEP or IB exams, please see pages 20-22 for the specific policy.

<b>Core Requirements for Majors in English</b>	<b>Semester Hours</b>
Eng 10-233 American Literature: Beginnings to 1865	3
Eng 10-234 American Literature: 1865 to the Present	3
Eng 10-245 English Literature: <i>Beowulf</i> through the 18th Century	3
Eng 10-246 English Literature: Romantics to the Present	3
Eng 10-305 The Literary Critic's Craft	2
Eng 10-372 Introduction to Shakespeare	3
Eng 10-405 Senior Seminar	1
<b>Total Hours</b>	<b>18</b>

## MAJORS

### Major in English, 30 hours: B.A.—Minor Required

<b>Required Courses</b>	<b>Semester Hours</b>
English Core Requirements	18
<b>One course from:</b>	<b>3</b>
Eng 10-311 Advanced Composition	
Eng 10-312 Creative Writing: Creative Nonfiction	
Eng 10-313 Creative Writing: Fiction	
Eng 10-314 Creative Writing: Poetry	
Eng 10-315 Technical Writing	
<b>Approved electives to total 30 hours</b>	<b>9</b>

### Major in English, 37 hours: B.S.Ed.—Minor Required (Certifies Grades 9-12)

<b>Required Courses</b>	<b>Semester Hours</b>
English Core Requirements	18
Eng 10-380 Practicum in Teaching Writing Skills	1
Eng 10-403 English Grammars	3
Eng 10-505 History of the English Language	3
Eng 10-590 Young Adult Literature	3
<b>Approved literature courses numbered 300 or above</b>	<b>6</b>
<b>One course from:</b>	<b>3</b>
Eng 10-311 Advanced Composition	
Eng 10-312 Creative Writing: Creative Nonfiction	
Eng 10-313 Creative Writing: Fiction	
Eng 10-314 Creative Writing: Poetry	
Eng 10-315 Technical Writing	

Eng 10-580 Methods in Secondary School English must be completed as part of the professional education requirements.

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

### **Comprehensive Major in English Education, 55 hours: B.S.Ed.—No Minor Required (Certifies Grades 9-12)**

Required Courses	Semester Hours
English Core Requirements	18
Eng 10-224 Multiethnic Literature of the United States	3
Eng 10-290 Introduction to the Teaching of Writing	3
Eng 10-380 Practicum in Teaching Writing Skills	1
Eng 10-403 English Grammars	3
Eng 10-505 History of the English Language	3
Eng 10-590 Young Adult Literature	3
Approved writing course number 300 or above	3
Approved literature courses numbered 300 or above	6
Approved English electives to total 55 hours	12

Eng 10-580 Methods in Secondary School English must be completed as part of the professional education requirements.

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

## **MINORS**

### **Minor in English, 24 hours**

Required Courses	Semester Hours
Eng 10-233 American Literature: Beginnings to 1865	3
Eng 10-234 American Literature: 1865 to the Present	3
Eng 10-245 English Literature: <i>Beowulf</i> through the 18th Century	3
Eng 10-246 English Literature: Romantics to the Present	3
One course from:	3
Eng 10-311 Advanced Composition	
Eng 10-312 Creative Writing: Creative Nonfiction	
Eng 10-313 Creative Writing: Fiction	
Eng 10-314 Creative Writing: Poetry	
Eng 10-315 Technical Writing	

Approved electives (must include 6 hours of upper-level English) to total 24 hours

### **Writing Minor in English, 24 hours**

Required Courses	Semester Hours
Eng 10-311 Advanced Composition	3
Eng 10-315 Technical Writing	3
Eng 10-403 English Grammars	3
One course from:	3
Eng 10-304 Rhetorical Writing	
Eng 10-312 Creative Writing: Creative Nonfiction	



Eng 10-313 Creative Writing: Fiction

Eng 10-314 Creative Writing: Poetry

**Approved electives from the following:**

12

Any two English Department literature courses

Eng 10-304 Rhetorical Writing

Eng 10-312 Creative Writing: Creative Nonfiction

Eng 10-313 Creative Writing: Fiction

Eng 10-314 Creative Writing: Poetry

Eng 10-510 Writing Theory and Practice

Eng 10-513 Advanced Creative Writing: Fiction

Eng 10-514 Advanced Creative Writing: Poetry

Eng 10-558 Writing and Publishing

MC 20-227 Reporting I

MC 20-327 Reporting II

MC 20-358 Feature Writing

**Language Arts Concentrations for Middle School Major  
Certifies Grades 5-9 when completed with the Middle School Major****Required Courses****Semester Hours**

Eng 10-290 Introduction to the Teaching of Writing

3

Eng 10-403 English Grammars

3

Eng 10-590 Young Adult Literature

3

Com 29-325 Listening Behaviors and Skills

3

Th 43-460 Creative Dramatics

3

**21 Hour Concentration**

(Meets requirements of Major in Middle School)

Required Courses

15

\*Two courses from electives

6

\*See advisor for list of approved electives

**Minor in English, 31 hours: Certifiable—See Professional  
Education Requirements****Required Courses****Semester Hours**

Eng 10-233 American Literature: Beginnings to 1865

3

Eng 10-234 American Literature: 1865 to the Present

3

Eng 10-245 English Literature: *Beowulf* through the 18th Century

3

Eng 10-246 English Literature: Romantics to the Present

3

Eng 10-403 English Grammars

3

Eng 10-505 History of English Language

3

Eng 10-590 Young Adult Literature

3

Eng 10-380 Practicum in Teaching Writing Skills

1

**Two courses from:**

6

Eng 10-311 Advanced Composition

Eng 10-312 Creative Writing: Creative Nonfiction

Eng 10-313 Creative Writing: Fiction

Eng 10-314 Creative Writing: Poetry

Eng 10-315 Technical Writing

**Approved electives to total 31 hours**

Eng 10-580 Methods in Secondary School English must be completed as part of the professional education requirements.

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

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## Course Descriptions

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### English / 10

#### **200 Special Offerings (1-4 hours)**

Courses that are offered on only one occasion or variable issue-oriented courses that have the content described in the title. Credit and prerequisites as announced.

#### **300 Special Offerings (1-4 hours)**

Courses that are offered on only one occasion or variable issue-oriented courses that have the content described in the title. Credit and prerequisites as announced.

#### **400 Special Offerings (1-4 hours)**

Courses that are offered on only one occasion or variable issue-oriented courses that have the content described in the title. Credit and prerequisites as announced.

#### **500 Special Offerings (1-4 hours)**

Courses that are offered on only one occasion or variable issue-oriented courses that have the content described in the title. Credit and prerequisites as announced.

### GRAMMAR AND LINGUISTICS

#### **403 English Grammars (3 hours)**

Detailed studies of the basic traditional model that has long been a part of American school tradition and the newer models of structural, transformational and post-transformational grammars. Special emphasis on syntax, morphology and the classifications of sentences. Some attention to conventions of contemporary written English. (F, S)

#### **409 Directed Reading in Linguistics (1-3 hours)**

Tutorial for individual student projects. Instructor's permission required. (F, S)

#### **503 Grammars in the English Classroom (1 hour)**

A survey of the traditional model of English grammar that has long been part of the American school

tradition, as well as the newer models of structural and transformational grammars. Covers the classification of sentences and parts of speech, syntax, morphology and usage. Investigates conventions of contemporary written English and applications of increased language awareness to teaching issues and problems of social discourse. (Alt. years)

#### **505 History of the English Language (3 hours)**

Historic background of the language, tracing changes in the sound system, inflectional system, syntax and word meanings. (F)

### LITERATURE

#### **220 Introduction to Literature (3 hours)**

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. Humanities credit. (F, S)

#### **224 Multiethnic Literature of the United States (3 hours)**

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, S)

#### **233 American Literature: Beginnings to 1865 (3 hours)**

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)

#### **234 American Literature: 1865 to the Present (3 hours)**

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)

**245 English Literature: Beowulf through the 18th Century (3 hours)**

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)

**246 English Literature: Romantics to the Present (3 hours)**

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)

**305 The Literary Critic's Craft (2 hours)**

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. (F)

**325 Special Studies (3 hours)**

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. (F and/or S, depending on availability)

**343 Survey of Women's Literature (3 hours)**

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)

**362 The British Novel (3 hours)**

The development of the British novel from the 18th century to the present. (F, alt. years)

**363 The American Novel (3 hours)**

The development of the American novel from the early 19th century to the present. (S, alt. years)

**371 Survey of World Drama (3 hours)**

European, African, Asian and American dramatic masterworks with emphasis on the relevance of ancient Greek drama to the analysis of later work by Moliere, Goethe, Chekhov, Ibsen, Williams, Brecht and Fugard. (S, alt. years)

**372 Introduction to Shakespeare (3 hours)**

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)

**428 Directed Reading in Literature (1-6 hours)**

Tutorial for individual student projects. Instructor's permission required. (F, S)

**471 Modern and Contemporary World Drama (3 hours)**

American, British and international plays since Ibsen, including works by Shaw, O'Neill, Williams, Beckett, Fugard and other key dramatists. (F, alt. years)

**525 Special Studies (3 hours)**

An intensive study of a literary theme, a genre or an approach to writing or language. The subject matter or emphasis will change each trimester. (F and/or S)

**532 Hawthorne and Melville (3 hours)**

A study of the more important works of Hawthorne and Melville. Readings may include *Moby Dick*, *Typee*, *Billy Budd*, *The Scarlet Letter* and *The Marble Faun*. (Alt. years)

**543 English Literature of the 16th Century (3 hours)**

A study of poetry, drama and prose by authors including More, Spenser, Marlow and others such as Wyatt, Mary Sidney, Philip Sidney and Raleigh. Exclusive of Shakespeare. (Alt. years)

**544 English Literature of the 17th Century (3 hours)**

A study of poetry, drama and prose by authors including Jonson, Donne, Milton and others such as Herbert, Wroth, Lanyer and Webster. Exclusive of Shakespeare. (Alt. years)

**545 English Literature of the 18th Century (3 hours)**

A survey of the literature of England from 1700 to the publication of Lyrical Ballads. Representative selections included from Pope, Johnson, Boswell, Fielding and Blake. (Alt. years)

**547 Victorian Literature (3 hours)**

English prose, poetry and drama from 1830 to the end of the 19th century. Readings selected

from Browning, Tennyson, Dickens, Hardy, Eliot and others. (Alt. years)

### **556 British Fiction of the 20th Century (3 hours)**

A study of 20th century fiction written in the British Isles. Authors will include Conrad, Joyce, Woolf, Lawrence, Forster and Lessing. (Alt. years)

### **561 Modern Short Fiction (3 hours)**

A critical study of short fiction from the late nineteenth century to the present, with some emphasis upon the development of form and technique within the genre. Readings may include works by Maupassant, James, Hemingway, O'Connor, Joyce, Lessing, Borges and Marquez. (Alt. years)

### **573 Shakespearean Drama (3 hours)**

A study of Shakespeare's more complex and/or problematic plays, including *King Lear*, *The Winter's Tale* and others such as *Richard II*, *All's Well That Ends Well*, *Henry V*, *Coriolanus* and *Antony and Cleopatra*. (S, alt. years)

### **581 Poetry of the Romantic Movement (3 hours)**

A study of the poetry and poetic theories of English Romantic writers. Readings will include works by Wordsworth, Coleridge, Keats, Byron and Shelley. (Alt. years)

### **582 Contemporary Poetry (3 hours)**

Themes and techniques of British and American poetry and study of poetic theory from 1920 to the present. Authors include Yeats, Eliot, Pound, Frost, Stevens, Ransom, Warren, Auden, Wilbur, Brooks, Hughes, Nemerov, Larkin and Plath. (Alt. years)

### **585 Chaucer (3 hours)**

A reading of the *Canterbury Tales* and selections from Chaucer's other poems, including their language and backgrounds. (Alt. years)

## **PEDAGOGY**

### **290 Introduction to the Teaching of Writing (3 hours)**

Strategies for effective teaching of writing, with some background on writing research and theory. (S, alt. years)

### **380 Practicum in Teaching Writing Skills (1 hour)**

Laboratory practice in teaching developmental writing skills and tutoring in a small-group setting. (F)

### **580 Methods in Secondary School English (3 hours)**

Study and practice in strategies for effective teaching of the English language arts in secondary schools. Includes materials, methods, planning, assessment and evaluation, current issues and trends in teaching the English and language arts. (F)

### **590 Young Adult Literature (3 hours)**

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**

### **101 English as a Foreign Language (3 hours)**

For the individual needs of students whose native language is not English. Meets five times per week. Does not fulfill the Eng 10-110 or 111 requirement.

### **110 Introduction to College Writing (3 hours + 2 lab hours)**

A college-level composition course designed to develop skills in prewriting, drafting, editing and rewriting. Required of students with ACT English scores of 18 or below. (F, S)

### **111 Composition (3 hours)**

Extensive practice in narrative, descriptive and expository writing, using supplementary readings to model form and to generate subject matter for composition. Prerequisite: A grade of "C" or better in Eng 10-110, an ACT English score of 19-26 or successful placement challenge. (F, S)

### **112 Composition (3 hours)**

Further practice in expository writing. Includes study of techniques of research and documentation and requires preparation of a documented research paper. Prerequisite: Eng 10-111. (F, S)

### **115 Accelerated Composition (3 hours)**

A one semester intensive writing course equivalent to Eng 10-111 and 10-112 for high performing students. Includes study of rhetorical forms and such writing strategies as organizing, prewriting, drafting, editing and rewriting. Uses supplementary readings as rhetorical models and as sources to generate subject matter. Includes study of techniques of research and documentation and requires preparation of a documented research paper. Satisfactory completion of this course fulfills all six hours of the

University's General Education requirements for Written Communication. Prerequisite: ACT English score of 27 or above. (F, S)

### **304 Rhetorical Writing (3 hours)**

Application of the principles and theories of rhetoric to original writing, with special attention given to writings that can potentially produce genuine results in personal, institutional, cultural or political contexts. (Alt. years)

### **311 Advanced Composition (3 hours)**

Advanced study of writing, especially techniques of rhetoric, argumentation and research. Prerequisite: Eng 10-112 or 115. (F, S)

### **312 Creative Writing: Creative Nonfiction (3 hours)**

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: Eng 10-112 or 115. (Alt. years)

### **313 Creative Writing: Fiction (3 hours)**

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: Eng 10-112 or 115. (F)

### **314 Creative Writing: Poetry (3 hours)**

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: Eng 10-112 or 115. (S)

### **315 Technical Writing (3 hours)**

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: Eng 10-112 or 10-115 or permission of instructor. (F, S)

### **405 Senior Seminar (1 hour)**

A capstone course. Besides preparing a professional resume and participating in a mock inter-

view, the student will, through presentation of a research project at a public forum, synthesize various elements of critical thinking, reflect on major texts and demonstrate research abilities in the discipline. (F)

### **419 Directed Writing (1-4 hours)**

Independent work in creative or expository writing. Instructor's permission required. (F, S)

### **495 Internship in Writing and Research (1-8 hours)**

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.

### **510 Writing Theory and Practice (3 hours)**

The study of writing theories and advanced composition practices, examining stylistic, personal, cognitive, social and political dimensions of writing. Prerequisite: Bachelor's degree in English or satisfactory completion of any of the following courses: Eng 10-304, 311, 315 or equivalent courses in advanced prose writing. (Alt. years)

### **513 Advanced Creative Writing: Fiction (3 hours)**

An advanced course in writing original fiction. Prerequisite: Eng 10-313 or permission of instructor. (S)

### **514 Advanced Creative Writing: Poetry (3 hours)**

An advanced course in writing original poems. Prerequisite: Eng 10-314 or permission of instructor. (F)

### **558 Writing and Publishing (3 hours)**

Study of literary and freelance markets, for writers and those interested in gaining professional knowledge of publication and editing practices. Prerequisite Eng 10-112 or 115 or permission of instructor.

# Department of Geology / 27 and Geography / 32

**Chairperson:** Gregory Haddock

**Faculty:** Jeffrey Bradley, Mark Corson, Patricia Drews, Richard Felton, Theodore Goudge, James Hickey, Ming-Chih Hung, Yanfen Le, Leah Manos, John Pope, Renee Rohs, Yi-Hwa Wu

## Statement of Mission

The mission of the Department of Geology and Geography is to provide students a diverse, quality undergraduate geoscience curricula focused on preparation in both the natural and social sciences. The programs offered by the department focus on combining a core of instruction in applied geography or geology with a set of topical specializations. Courses in physical and environmental geology issues provide a background in the analysis of the physical environment and the interaction of humans with natural systems. Courses in urban and social analysis focus on helping the student understand patterns of land use and human activity in both urban and rural settings. Regional courses increase students' understanding of how economic, cultural and physical environments interact in a global community. Finally, courses such as remote sensing, cartography and geographic information systems focus on techniques of gathering, storing and analyzing data to solve problems. The department constantly attempts to provide internships for its students, raise standards and adjust its programs to ensure that students are provided the requisite knowledge and skills to prepare them for a wide variety of careers.

## DEGREE PROGRAMS

The Department of Geology and Geography offers programs leading to the Bachelor of Arts and Bachelor of Science degrees. A program may also be selected for a Bachelor of Science in Education, Secondary Program, in earth science. The department provides students the opportunity to prepare themselves academically to pursue entry-level positions as professional geologists and geographers, and graduate study in either geology or geography through the Bachelor of Science degree, or to pursue teaching careers at the junior or senior high school level with the Bachelor of Science in Education degree. The Bachelor of Arts degree is more flexibly structured for those students who desire a liberal education with the study of geology or geography to serve as a basis for this education.

The geoscience program focuses on developing broad backgrounds in the respective majors in geology and geography. A systems approach, both global and local, as well as the place specific factors influencing the direction and rate of change is the unifying theme of both teaching and research in the department. Specific themes include environmental studies, spatial analysis techniques, climatic change, resource management, earth materials, regional studies and interpretation of earth history. The geoscience programs are designed to train students in applied methodologies emphasizing real-world applications.

**Test-Out Policy**

The Department of Geology and Geography does not offer test-out for any of its courses.

**Internship and Independent Study**

Students may apply 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.

# Geology / 27

**Advanced Standing Requirement**

All geology courses which are prerequisites to other geology courses must be passed with a “C” or higher grade before the advanced course may be taken.

**MAJORS****Core Requirements for Majors in Geology**

	Semester Hours
Geol 27-110/111 General Geology and Laboratory OR	
Geol 27-114/115 General Earth Science and Laboratory	4
Geol 27-212 Historical Geology	4
Geol 27-220 Mineralogy	3
Geol 27-420 Petrology	4
Geol 27-498 Senior Seminar	1
<b>Total Hours</b>	<b>16</b>

**Major in Geology, 30 hours: B.A.—Minor Required**

Geology Major Core Requirements	16
Geol 27-360 Environmental Geology	4
Geology electives (No more than 2 field trips)	10
<b>Directed General Education Course</b>	
Chem 24-112/113 General Chemistry and Laboratory OR	
Chem 24-114/115 General Chemistry I and Laboratory	4

**Comprehensive Major in Geology, 53-58 hours  
(depending on area of concentration): B.S.—No Minor Required**

<b>Areas of Concentration</b>	Semester Hours
General Geology	54-58
Environmental Geology	53

**General Geology Concentration 54-58 hours**

Required Courses	Semester Hours
Geology Major Core Requirements	16
Geol 27-450 Structural Geology	4

Geol 27-440 Stratigraphy OR	
Geol 27-530 Sedimentology	3
Geol 27-540 Paleontology	5
Geology Summer Field Camp (approved through institution)	6
<b>Required Geology Electives (one course from each group)</b>	
<b>Group I</b>	3
Geol 27-423 Economic Geology (3)	
Geol 27-424 Geochemistry (3)	
Geol 27-510 Geomorphology (3)	
Geol 27-555 X-Ray Analysis (3)	
Geol 27-560 Optical Mineralogy (3)	
<b>Group II</b>	3-4
Geol 27-335 Physical Oceanography (3)	
Geol 27-340 Introduction to Hydrogeology (3)	
Geol 27-360 Environmental Geology (4)	
Geol 27-515 Environmental Regulations (2)	
Geog 32-361 Climatology (3)	
Geog 32-363 Remote Sensing (3)	
<b>Required Collateral Courses</b>	
Math 17-119 Trigonometry or any calculus course	2
Chemistry: One course with laboratory beyond the directed General Education course; choose from:	
Chem 24-114/115 General Chemistry I and Laboratory (4) OR	
Chem 24-116/117 General Chemistry II and Laboratory (5)	4-5
Phys 25-110/111 General Physics I and Laboratory (4) AND	
Phys 25-112/113 General Physics II and Laboratory (4)	
OR	
Phys 25-120/121 Classical Physics I and Laboratory (5) AND	
Phys 25-230/231 Fundamentals of Classical Physics II and Lab. (5)	8-10
<b>Directed General Education Courses</b>	
Math 17-118 College Algebra or any calculus course	3
Chem 24-112/113 General Chemistry and Laboratory OR	
Chem 24-114/115 General Chemistry I and Laboratory	4
Bio 04-102/103 General Biology and Laboratory OR	
Bio 04-112/113 General Botany and Laboratory OR	
Bio 04-114/115 General Zoology and Laboratory OR	
Bio 04-312 Invertebrate Zoology	4

### **Environmental Geology Concentration, 53 hours: B.S.—No Minor Required**

Required Courses	Semester Hours
<b>Geology Major Core Requirements</b>	<b>16</b>
Geol 27-340 Introduction to Hydrogeology	3
Geol 27-360 Environmental Geology	4
Geol 27-455 Geologic Field Methods OR	
Field Camp in Geology, Hydrogeology or Environmental Geology	3
Required Geology Electives (choose a combination to total 12 hours)	12
Geol 27-326 National Parks (3)	
Geol 27-335 Physical Oceanography (3)	



Geol 27-423 Economic Geology (3)  
 Geol 27-424 Geochemistry (3)  
 Geol 27-440 Stratigraphy (3)  
 Geol 27-450 Structural Geology (4)  
 Geol 27-510 Geomorphology (3)  
 Geol 27-530 Sedimentology (3)  
 Geol 27-540 Paleontology (5)  
 Geol 27-555 X-Ray Analysis (3)  
 Geol 27-560 Optical Mineralogy (3)

**Required Collateral Courses (choose a combination to total 15 hours)**

15

Bio 04-420 Environmental Issues (4)  
 Ag 03-334 Soils (4)  
 Chem 24-242/243 Organic Chemistry and Laboratory (4)  
 Geol 27-515 Environmental Regulations (2)  
 Geog 32-201 Maps and Maps Interpretation (3)  
 Geog 32-207 GPS Fundamentals (3)  
 Geog 32-221 Economic Geography (3)  
 Geog 32-361 Climatology (3)  
 Geog 32-362 Cartography (3)  
 Geog 32-363 Remote Sensing (3)  
 Geog 32-365 Geographic Information Systems (3)  
 Geog 32-501 Conservation of Natural Resources (3)  
 Geog 32-522 Urban Geography (3)  
 Geog 32-562 Digital Cartography and GeoVisualization (3)  
 Geog 32-563 Digital Image Processing (3)  
 Geog 32-565 Advanced Geographic Information Systems (3)  
 Math 17-114 General Statistics I (3)

**Unified Science Major in Earth Science, 58 hours: B.S.Ed.,  
 Secondary Program—No Minor Required (Certifies Grades 9-12,  
 Endorsement Area: Earth Science)**

Required Courses in Endorsement Area: Earth Science	Semester Hours
Geol 27-114/115 General Earth Science and Laboratory	4
Geol 27-212 Historical Geology	4
Geol 27-220 Mineralogy	3
Geol 27-305 Practicum in Teaching Laboratory	1
Geol 27-335 Physical Oceanography	3
Geol 27-360 Environmental Geology	4
Geol 27-420 Petrology	4
Geol 27-498 Senior Seminar	1
Geol 27-540 Paleontology	5
Geog 32-360 Dynamic and Synoptic Meteorology	3
<b>Required Collateral Courses for the Unified Science Major</b>	
Sci Ed 28-550 History of Science and Technology	3
Bio 04-112/113 General Botany and Laboratory	4
Chem 24-116/117 General Chemistry II and Laboratory	5
Phys 25-110/111 General Physics I and Laboratory	4
Phys 25-112/113 General Physics II and Laboratory	4
Phys Sci 40-122/123 Descriptive Astronomy and Laboratory	4

Math 17-119 Trigonometry	2
<b>Total Hours in Major</b>	<b>58</b>
<b>Directed General Education Courses</b>	
Math 17-118 College Algebra	3
Bio 04-114/115 General Zoology and Laboratory	4
Chem 24-114/115 General Chemistry I and Laboratory	4
<b>Professional Education Requirements</b>	<b>30</b>
Including Sci Ed 28-580 Methods in Secondary School Science (3)	

## MINORS

### Minor in Geology, 24 hours

Required Courses	Semester Hours
Geol 27-110/111 General Geology and Laboratory OR Geol 27-114/115 General Earth Science and Laboratory	4
Geol 27-212 Historical Geology	4
Geol 27-220 Mineralogy	3
Required Geology Electives (Must include one 400 or 500 level 3-5 credit course from Geology offerings and no more than one field trip)	13
<b>Directed General Education Course</b>	
Chem 24-112/113 General Chemistry and Laboratory OR Chem 24-114/115 General Chemistry I and Laboratory	4

### Minor in Earth Science Education, 22-23 hours

Required Courses	Semester Hours
*Geol 27-114/115 General Earth Science and Laboratory	4
Geol 27-212 Historical Geology	4
Geol 27-305 Practicum in Teaching Laboratory	1
Geol 27-335 Physical Oceanography	3
Geog 32-360 Dynamic and Synoptic Meteorology	3
Geol 27-360 Environmental Geology (4) OR Geog 32-501 Conservation of Natural Resources (3)	3-4
Phys Sci 40-122/123 Descriptive Astronomy and Laboratory	4

\*This course counts as a General Education course as well as a course in the minor area.

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.

Students with a non-science education major will also be required to take Sci Ed 28-550 History of Science and Technology.

### Interdisciplinary Minor in Environmental Science, 26 hours

Required Courses	Semester Hours
Chem 24-114/115 General Chemistry I and Laboratory	4
Bio 04-114/115 General Zoology and Laboratory	4
Bio 04-376 Basic Ecology	4
Geol 27-360 Environmental Geology OR Bio 04-420 Environmental Issues	4

Geol 27-340 Hydrogeology	3
Geog 32-501 Conservation of Natural Resources	3
<b>Advisor-Approved Electives (choose 4 hours):</b>	<b>4</b>
Ag 03-334 Soils (4)	
Bio 04-140 General Microbiology (4)	
Bio 04-307 Environmental Internship (1-3)	
Bio 04-474 Wildlife Management & Conservation (2)	
Bio 04-575 Methods in Plant Ecology (2)	
Bio 04-577 Methods in Animal Ecology (2)	
Geol 27-424 Geochemistry (3)	
Geol 27-515 Environmental Regulations (2)	
Geol 27-530 Sedimentology (3)	
Geog 32-361 Climatology (3)	
Other courses as approved by the advisor	
<b>Directed General Education Courses</b>	
Bio 04-112/113 General Botany and Laboratory	4
Geol 27-114/115 General Earth Science and Laboratory	4

NOTES: No biology course in the Environmental Science Minor may also be counted toward any major in the Department of Biological Sciences. 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 biology courses.

This minor may not be paired with the Environmental Science Emphasis of the B.S. in Biology.

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.

## Geography / 32

<b>Core Requirements for All Majors in Geography</b>	<b>Semester Hours</b>
Geog 32-201 Maps and Map Interpretation	3
Geog 32-221 Economic Geography	3
Geog 32-340 Geography of North America	3
Geog 32-410 Geographic Thought and Research Methods	3
Geog 32-499 Senior Seminar	1
<b>Total Hours</b>	<b>13</b>

## MAJORS

### Major in Geography, 30 hours: B.A.–Minor Required

<b>Required Courses</b>	<b>Semester Hours</b>
<b>Geography Major Core Requirements:</b>	<b>13</b>
<b>Electives in Regional Geography: (Choose two)</b>	<b>6</b>
Geog 32-441 Geography of Europe (3)	
Geog 32-442 Geography of Asia (3)	
Geog 32-444 Geography of Africa (3)	
Geog 32-445 Geography of Latin America (3)	
Geog 32-511 Special Topics in Geography (regional)	

**Electives in Systematic Geography:**

- Geog 32-102 People and Cultures of the World (3)
- Geog 32-207 GPS Fundamentals (3)
- Geog 32-211 Special Topics in Geography (6 hours maximum)
- Geog 32-302 Cadastral Mapping (2)
- Geog 32-360 Dynamic and Synoptic Meteorology (3)
- Geog 32-361 Climatology (3)
- Geog 32-362 Cartography (3)
- Geog 32-363 Remote Sensing (3)
- Geog 32-365 Geographic Information Systems (3)
- Geog 32-409 Independent Study in Geography (1-3)
- Geog 32-415 Internship in Geography (1-6)
- Geog 32-465 Introduction to Customized GIS (3)
- Geog 32-501 Conservation of Natural Resources (3)
- Geog 32-510 Geographic Education: Themes and Materials (2)
- Geog 32-511 Special Topics in Geography (6 hours maximum or 2 courses)
- Geog 32-521 Political Geography (3)
- Geog 32-522 Urban Geography (3)
- Geog 32-562 Digital Cartography and GeoVisualization (3)
- Geog 32-563 Digital Image Processing (3)
- Geog 32-565 Advanced Geographic Information Systems (3)
- Geol 27-326 Geology of the National Parks (3)
- Geol 27-360 Environmental Geology (4)
- Geol 27-455 Geologic Field Methods (3)
- Geol 27-510 Geomorphology (3)
- Geol 27-515 Environmental Regulations (2)

**Major in Geography, 37 hours: B.S.—Minor Required****Required Courses**

Semester Hours

**Geography Major Core Requirements**

13

**Electives in Regional Geography: (Choose one or two)**

3-6

- Geog 32-441 Geography of Europe (3)
- Geog 32-442 Geography of Asia (3)
- Geog 32-444 Geography of Africa (3)
- Geog 32-445 Geography of Latin America (3)

**Electives in Systematic Geography:**

18-21

- Geog 32-102 People and Cultures of the World (3)
- Geog 32-207 GPS Fundamentals (3)
- Geog 32-211 Special Topics in Geography (6 hours maximum)
- Geog 32-302 Cadastral Mapping (2)
- Geog 32-360 Dynamic and Synoptic Meteorology (3)
- Geog 32-361 Climatology (3)
- Geog 32-362 Cartography (3)
- Geog 32-363 Remote Sensing (3)
- Geog 32-365 Geographic Information Systems (3)
- Geog 32-409 Independent Study in Geography (1-3)
- Geog 32-415 Internship in Geography (1-6)
- Geog 32-465 Introduction to Customized GIS (3)
- Geog 32-501 Conservation of Natural Resources (3)
- Geog 32-510 Geographic Education: Themes and Materials (2)

Geog 32-511 Special Topics in Geography (1-4)
Geog 32-521 Political Geography (3)
Geog 32-522 Urban Geography (3)
Geog 32-562 Digital Cartography and GeoVisualization (3)
Geog 32-563 Digital Image Processing (3)
Geog 32-565 Advanced Geographic Information Systems (3)
Geol 27-326 Geology of the National Parks (3)
Geol 27-360 Environmental Geology (4)
Geol 27-455 Geologic Field Methods (3)
Geol 27-510 Geomorphology (3)
Geol 27-515 Environmental Regulations (2)

### **Comprehensive Major in Geographic Information Systems, 53 hours: B.S.—No Minor Required**

The offering of this major is contingent upon State approval. First planned offering of this major is Fall 2006.

Required Courses	Semester Hours
Geog 32-201 Maps and Map Interpretation	3
Geog 32-207 GPS Fundamentals	3
Geog 32-221 Economic Geography	3
Geog 32-362 Cartography	3
Geog 32-363 Remote Sensing	3
Geog 32-365 Geographic Information Systems	3
Geog 32-410 Geographic Thought and Research Methods	3
Geog 32-465 Introduction to Customized GIS	3
Geog 32-499 Senior Seminar	1
Geog 32-565 Advanced Geographic Information Systems	3
CSIS 44-140 Introduction to Programming Using Visual Basic	3
CSIS 44-346 Database Applications	1
<b>Electives in GIS (Choose six hours)</b>	<b>6</b>
Geog 32-302 Cadastral Mapping (2)	
Geog 32-415 Internship in Geography (1-6)	
Geog 32-562 Digital Cartography and Geovisualization (3)	
Geog 32-563 Digital Image Processing (3)	
Other advisor-approved electives	
<b>Electives in Regional Geography: (Choose three hours)</b>	<b>3</b>
Geog 32-340 Geography of North America (3)	
Geog 32-441 Geography of Europe (3)	
Geog 32-442 Geography of Asia (3)	
Geog 32-444 Geography of Africa (3)	
Geog 32-445 Geography of Latin America (3)	
<b>Area of Emphasis</b>	<b>12</b>
Choose one area of emphasis from the following options:	
<b>Data and Technology Emphasis, 12 hours</b>	
<b>Required Courses</b>	
CSIS 44-141 Computer Programming I	3
CSIS 44-241 Computer Programming II	3
CSIS 44-460 Database Systems	3

<b>Electives (Choose 3 hours)</b>	3
CSIS 44-540 Visual Application Development (3)	
CSIS 44-560 Advanced Topics in Database Systems (3)	
CSIS 44-563 Web Services Technology (3)	
<b>Geographic Emphasis, 12 hours</b>	
<b>Required Course</b>	
Geog 32-522 Urban Geography	3
<b>Electives (Choose 9 hours)</b>	9
Geog 32-360 Dynamic and Synoptic Meteorology (3)	
Geog 32-361 Climatology (3)	
Geog 32-501 Conservation of Natural Resources (3)	
Geog 32-521 Political Geography (3)	
Geol 27-510 Geomorphology (3)	
<b>Earth Technology Emphasis, 12 hours</b>	
<b>Required Courses</b>	
Geol 27-360 Environmental Geology	4
Geol 27-515 Environmental Regulations	2
<b>Electives (Choose 6 hours)</b>	6
Geol 27-335 Physical Oceanography (3)	
Geol 27-340 Introduction to Hydrogeology (3)	
Geol 27-510 Geomorphology (3)	
Geog 32-501 Conservation of Natural Resources (3)	
Bio 04-420 Environmental Issues (4)	
Bio 04-474 Wildlife Management and Conservation (2)	
<b>Civil/Public Emphasis, 12 hours</b>	
<b>Required Courses</b>	
Geog 32-522 Urban Geography	3
PolS 34-355 Economic Development	3
<b>Electives (Choose 6 hours)</b>	6
PolS 34-203 State and Local Government (3)	
PolS 34-332 Principles of Public Administration (3)	
PolS 34-502 Public Policy (3)	
Soc 35-316 Urban Sociology (3)	
Eng 10-315 Technical Writing (3)	
<b>Directed General Education Courses</b>	
Geog 32-101 Introduction to Geography	3
Geol 27-114/115 General Earth Science and Laboratory OR	
Geol 27-110/111 General Geology and Laboratory	4
Math 17-114 General Statistics I	3

## MINORS

### Minor in Geography, 24 hours

Required Courses	Semester Hours
Geog 32-201 Maps and Map Interpretation	3
Geog 32-221 Economic Geography	3
Geog 32-340 Geography of North America	3

Geog 32-410 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)	

### **Minor in Geographic Information Systems, 28 hours**

This is an interdisciplinary minor in conjunction with the Department of Computer Science/ Information Systems.

Required Courses	Semester Hours
<b>Geography</b>	
Geog 32-201 Maps and Map Interpretation	3
Geog 32-365 Geographic Information Systems	3
Geog 32-565 Advanced Geographic Information Systems	3
<b>Computer Science</b>	
CSIS 44-140 Introduction to Programming Using Visual Basic	3
CSIS 44-141 Computer Programming I	3
CSIS 44-241 Computer Programming II	3
CSIS 44-346 Database Applications	1
CSIS 44-460 Database Systems	3
<b>Advisor-Approved Electives</b>	
Geog 32-362 Cartography (3)	6
Geog 32-363 Remote Sensing (3)	
Geog 32-562 Digital Cartography and GeoVisualization (3)	
Geog 32-563 Digital Image Processing (3)	
CSIS 44-242 Data and File Structures (3)	
CSIS 44-331 Integrated Software Applications (3)	
CSIS 44-540 Visual Application Development (3)	
CSIS 44-590 Current Topics in Computer Science (1-3)	

NOTE: CSIS 44-130 Computers and Information Technology is a prerequisite for the computer science courses as required by course descriptions.

### **Minor in Earth Science Education, 22-23 hours**

Required Courses	Semester Hours
*Geol 27-114/115 General Earth Science and Laboratory	4
Geol 27-212 Historical Geology	4
Geol 27-305 Practicum in Teaching Laboratory	1
Geol 27-335 Physical Oceanography	3
Geog 32-360 Dynamic and Synoptic Meteorology	3
Geol 27-360 Environmental Geology (4) OR	
Geog 32-501 Conservation of Natural Resources (3)	3-4
Phys Sci 40-122/123 Descriptive Astronomy and Laboratory	4

\*This course counts as a General Education course as well as a course in the minor area.

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.

Students with a non-science education major will also be required to take Sci Ed 28-550 History of Science and Technology.

**Interdisciplinary Minor in Environmental Science, 26 hours**

Required Courses	Semester Hours
Chem 24-114/115 General Chemistry I and Laboratory	4
Bio 04-114/115 General Zoology and Laboratory	4
Bio 04-376 Basic Ecology	4
Geol 27-360 Environmental Geology OR Bio 04-420 Environmental Issues	4
Geol 27-340 Hydrogeology	3
Geog 32-501 Conservation of Natural Resources	3
<b>Advisor-Approved Electives (choose 4 hours):</b>	<b>4</b>
Ag 03-334 Soils (4)	
Bio 04-140 General Microbiology (4)	
Bio 04-307 Environmental Internship (1-3)	
Bio 04-474 Wildlife Management & Conservation (2)	
Bio 04-575 Methods in Plant Ecology (2)	
Bio 04-577 Methods in Animal Ecology (2)	
Geol 27-424 Geochemistry (3)	
Geol 27-515 Environmental Regulations (2)	
Geol 27-530 Sedimentology (3)	
Geog 32-361 Climatology (3)	
Other courses as approved by the advisor	
<b>Directed General Education Courses</b>	
Bio 04-112/113 General Botany and Laboratory	4
Geol 27-114/115 General Earth Science and Laboratory	4

NOTES: No biology course in the Environmental Science Minor may also be counted toward any major in the Department of Biological Sciences. 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 biology courses.

This minor may not be paired with the Environmental Science Emphasis of the B.S. in Biology.

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.

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## Course Descriptions

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### Geography / 32

#### **101 Introduction to Geography (3 hours)**

Survey course introducing students to the geographical study of the relationship of humans to the environment and the spatial patterns of human activities. (F, S, SS)

#### **102 People and Cultures of the World (3 hours)**

A regional perspective on the distribution of languages, religions, laws and customs around the globe. (F, S, SS)

#### **201 Maps and Map Interpretation (3 hours)**

Designed to teach students how to analyze and interpret map information based on a knowledge of map projections, map distortion, coordinate systems and map measurement techniques. The basics of air photo interpretation are also covered. (F, S)

#### **207 GPS Fundamentals (3 hours)**

An introductory course to the Global Positioning System and the integration with other spatial data-related technologies, such as GIS and remote sensing, for field or in-office work. (F)



### **211 Special Topics in Geography (1-4 hours)**

A course designed to employ geographic tools and methods in the analysis of pertinent topics relating to the human spatial organization of the earth. Topics include: natural disasters, disease and health care, scribing, etc. (F, S, SS)

### **221 Economic Geography (3 hours)**

Survey course dealing with the interrelationships of geography and the human attempt to make a living. Such topics as agricultural regions of the world, industry, mining and forestry will be considered. (F, S)

### **302 Cadastral Mapping (2 hours)**

A course designed to employ geographic tools and methods in the analysis of pertinent topics relating to the human spatial organization of the earth. Prerequisite: Geog 32-201 or permission of instructor. (F, S)

### **340 Geography of North America (3 hours)**

An advanced course examining regional variations in the United States and Canada with numerous case studies. (F, S)

### **360 Dynamic and Synoptic Meteorology (3 hours)**

A study of the physical characteristics of the atmosphere and the variables that control both day-to-day weather and severe weather. Prerequisite: Geog 32-101 or Geol 27-114/115. (alt. trimesters, alt. years)

### **361 Climatology (3 hours)**

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 32-360 or Geol 27-114/115. (alt. trimesters, alt. years)

### **362 Cartography (3 hours)**

Map compilation, design and construction. Prerequisite: Geog 32-201 or permission of instructor. (F, S)

### **363 Remote Sensing (3 hours)**

Use of aerial photography and satellite imagery in geological and geographic research. Prerequisite: Geog 32-201 or permission of instructor. (F, S)

### **365 Geographic Information Systems (3 hours)**

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 32-201 or junior standing. (F, S)

### **409 Independent Study in Geography (1-3 hours)**

Offered only by special arrangement and with the consent of the instructor involved and the department chairperson. Requires written proposal at time of registration.

### **410 Geographic Thought and Research Methods (3 hours)**

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 32-201 and junior standing. (F, S)

### **415 Internship in Geography (1-6 hours)**

As internships (paid and unpaid) become available, they will be offered. They require permission of the instructor, department chairperson and a written proposal at the time of registration (F, S, SS)

### **441 Geography of Europe (3 hours)**

An advanced course in geography dealing with the continent of Europe. The major regions and nations of Europe are studied in detail. (S, odd years)

### **442 Geography of Asia (3 hours)**

An advanced course in the geography of Asia with a regional approach. Special emphasis is placed on the Chinese Realm, Southeast Asia, the Indian subcontinent, Japan and Korea. (F)

### **444 Geography of Africa (3 hours)**

A comprehensive course study of the physical and cultural geography of the African continent. (S, even years)

### **445 Geography of Latin America (3 hours)**

Provides the student with sufficient information about the physical and cultural aspects of Latin America to allow the application of general concepts of regional geography of this particular area. (F)

### **465 Introduction to Customized GIS (3 hours)**

An introduction to GIS customization for personalized graphic user interface and specialized functions. The GIS function library provided by the current GIS software will be used to facilitate such customization. (S)

**499 Senior Seminar (1 hour)**

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, S)

**500 Special Offerings (1-4 hours)**

One time course offering in a timely area of geography.

**501 Conservation of Natural Resources (3 hours)**

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. (alt trimesters, alt. years)

**510 Geographic Education: Themes and Materials (2 hours)**

Designed for elementary or secondary teachers wishing to incorporate an instructional unit in geography in either the social science or science curriculum. (SS)

**511 Special Topics in Geography (1-4 hours)**

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. 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. (F, S, SS)

**521 Political Geography (3 hours)**

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. (S, even years)

**522 Urban Geography (3 hours)**

An advanced course offering an in-depth study of the physical characteristics of cities and some of the problems man is faced with in a world where urbanism is a rapidly increasing phenomenon. Prerequisite: Junior standing or permission of instructor. (S)

**543 Applications of Remotely Sensed Data (3 hours)**

Covers the use of remotely-sensed information in a geographic information system environment. Emphasis is placed on understanding different data sources, tools and techniques used in remote sensing. (online, alt. trimesters, alt. years)

**545 Principles of GIS (3 hours)**

A rigorous study of fundamental GIS principles, including the nature of spatial data, vector and raster data models, and key GIS analysis operations. (online, alt. trimesters, alt. years)

**562 Digital Cartography and GeoVisualization (3 hours)**

An advanced cartography course utilizing computer assisted cartography and advanced techniques of map construction. Prerequisites: Geog 32-362. (S)

**563 Digital Image Processing (3 hours)**

Further explores the techniques and concepts learned in Remote Sensing (Geog 32-363). Explores advanced techniques in image analysis and processing not covered in Remote Sensing. Prerequisite: Geog 32-363. (F)

**565 Advanced Geographic Information Systems (3 hours)**

Builds on the techniques and concepts learned in Geographic Information Systems (Geog 32-365). Stresses research and project design strategies and advanced analytical techniques using geographic information systems to solve spatial problems. Prerequisite: Geog 32-365. (S)

**572 Issues in Cartographic Design (3 hours)**

An extension of basic GIS/desktop mapping encompassing the theoretical and applied aspects of cartographic problem solving pertaining to the collection, storage, retrieval, analysis and display of spatial data. An emphasis on map/graphics design issues pertaining to delivering the output in evolving media formats such as web dissemination. Prerequisites: Successful completion of an undergraduate Cartography course or equivalent work experience and Geog 32-545. (online, alt. trimesters, alt. years)

**580 Spatial Analysis and Geostatistics (3 hours)**

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, alt. trimesters, alt. years)

## Geology / 27

### 110 General Geology (3 hours)

A study of the minerals, surface features, geologic processes and history of the earth. Three lectures and one two-hour laboratory. Recommended to fulfill General Education requirement. Geol 27-110/111 must be taken concurrently. (F, S, SS)

### 111 General Geology Laboratory (1 hour)

(F, S, SS)

### 114 General Earth Science (3 hours)

A general introductory survey of the earth sciences of physical geography, geology, oceanography, climatology and meteorology. Student must co-register for Geol 27-115. (F, S, SS)

### 115 General Earth Science Laboratory (1 hour)

(F, S, SS)

### 212 Historical Geology (4 hours)

A study of the geological history of the earth including the geological time scale, rock units and fossil records. Three lectures and one two-hour laboratory. Prerequisite: Geol 27-110/111 or 114/115. (S)

### 214 Gemology (3 hours)

An introduction to gemology including description, identification, grading of gems and their substitutes. (alt. trimesters, alt. years)-

### 220 Mineralogy (3 hours)

A survey of physical mineralogy, identification of minerals, types of formation, and deposits of metallic ores, gemstones, industrial minerals and other economically useful minerals and rocks. Two lectures and one two-hour laboratory. Prerequisites: Geol 27-110/111 or 114/115 and Chem 24-112/113 or permission of instructor. (F)

### 305 Practicum in Teaching Laboratory (1 hour)

To assist faculty in beginning level laboratory situations in classes like Geol 27-111, 115, 213, 220 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)

### 320 Geology Field Trip (2 hours)

Field trip to selected localities of geologic interest. Prerequisite: Geol 27-110/111 or 114/115 or permission of the instructor. (F)

### 326 Geology of the National Parks (3 hours)

A study of the geologic features of the 38 U.S. National Parks including consideration of their causes and changes. Prerequisite: Geol 27-110/111 or 114/115. (F)

### 335 Physical Oceanography (3 hours)

A study of the oceans including the physical properties of the oceans and marine geology. Prerequisite: Completion of general education science requirement. (F, alt. years)

### 340 Introduction to Hydrogeology (3 hours)

An introduction to the occurrence, movement, quality, contamination and management of groundwater. Prerequisites: Geol 27-110/111 or 114/115 and Math 17-118. (S)

### 360 Environmental Geology (4 hours)

The relation of geology to man and his environment, including the study of population, earth resources and natural phenomena. Three lectures and one two-hour laboratory. Prerequisite: Geol 27-110/111 or 114/115. (F)

### 415 Internship in Geology (1-6 hours)

As internships (paid and unpaid) become available, they will be offered. They require permission of the instructor, department chairperson and a written proposal at the time of registration. Student enrolls in the appropriate number of credit hours for the work load of the internship. As a guideline, 160 work hours are worth 3 credit hours. (F, S, SS)

### 420 Petrology (4 hours)

Hand specimen 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 27-220. (S)

### 423 Economic Geology (3 hours)

A survey of metallic and nonmetallic (petroleum, coal) mineral deposits. Prerequisite: Geol 27-220. (F, alt. years)

### 424 Geochemistry (3 hours)

Basic principles governing the origin, distribution and migration of elements in the earth. Prerequisite:

sites: Geol 27-110/111 or 114/115 and Geol 27-220 and Chem 24-112/113. (S, alt. years)

#### **440 Stratigraphy (3 hours)**

A study of the principles and concepts used to study the stratigraphic sequence of rocks, including sedimentary environments, biostratigraphy and time-stratigraphic correlation. Prerequisite: Geol 27-212. (F, alt. years)

#### **450 Structural Geology (4 hours)**

The study of the architecture of rock units of the crust of the earth insofar as it has resulted from deformation and the tectonic forces which produce them. Subject matter includes folds, faults, unconformities, rock fabric, geosynclines, continental drift and plate tectonics. Laboratory techniques utilize structure cross sections, projections, structure contour maps, geologic maps, isopach maps, strike and dip, stereo nets, construction techniques, etc. Three lectures and one two-hour laboratory per week. Prerequisites: Geol 27-212 and 420 and one mathematics course with trigonometry. (S)

#### **455 Geologic Field Methods (3 hours)**

Basic geological surveying techniques will be studied in the field. Notebook procedures and format will be stressed. Prerequisite: Geology major or minor with 20 hours in geology. (SS)

#### **498 Senior Seminar (1 hour)**

A capstone course in Geology. A student will examine current geologic research results and techniques, write a research paper, present the paper orally to a forum in the department or elsewhere, 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)

#### **500 Special Offerings (1-4 hours)**

One-time course offering in a timely area of geology or earth science.

#### **501 Special Topics in Geology (1-4 hours)**

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 instructor.

#### **510 Geomorphology (3 hours)**

A study of landforms, their description, recognition and classification. The origin and nature of geomorphological processes which form and continually modify landforms. The influence of rock type, climate and other factors. Two lectures and one two-hour laboratory. Prerequisite: Geol 27-110/111 or 114/115. (S, alt. years)

#### **515 Environmental Regulations (2 hours)**

An introduction to federal and state regulations and major issues associated with the environment including air quality, groundwater quality and the disposal of hazardous waste. Prerequisites: Geol 27-360 or Bio 04-420 or Geog 32-501 or permission of instructor. (S, alt. years)

#### **520 Geology Field Trip (Advanced Level) (2 hours)**

Field trip to selected localities of geologic interest. Prerequisites: Geol 27-212. (F)

#### **530 Sedimentology (3 hours)**

A study of the production, transportation, deposition and lithification of sediments. To include comparison of classifications, techniques of using sediments in environmental interpretations and laboratory techniques in sediment study. Two lectures and one two-hour laboratory. Prerequisite: Geol 27-212. (F, alt. years)

#### **540 Paleontology (5 hours)**

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 also of microfossils, plants and vertebrates. Three lectures and two two-hour laboratories. Prerequisite: Geol 27-212 or permission of instructor. (S)

#### **555 X-Ray Analysis (3 hours)**

Theory and application of x-ray diffraction. Consideration will be given to sample preparation, American Society Testing Materials data file, laboratory procedures and analysis of data. Prerequisite: Geol 27-220 or permission of instructor. (S, alt. years)

#### **560 Optical Mineralogy (3 hours)**

A study of the optical properties of nonopaque minerals through the use of the petrographic (polarizing) microscope utilizing both oil immer-

sion and thin section methods. Prerequisite: Geol 27-220. (F, alt. years)

**590 Seminar in the Earth Sciences  
(2 hours)**

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. Prerequisite: Geol 27-110/111.

**599 Special Investigation in the Earth  
Sciences (1-3 hours)**

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. (F, S)

# Department of History / 33, Humanities / 26, Philosophy / 39 and Political Science / 34

**Chairperson:** Richard Frucht

**Faculty:** Joel Benson, Robert Dewhirst, Janice Brandon-Falcone, James Eiswert, Ronald Ferris, Richard Field, Richard Fulton, Brian Hesse, Matthew Johnson, David McLaughlin, Daniel Smith, Thomas Spencer, Michael Steiner

## **Statement of Mission**

The Department of History, Humanities, Philosophy and Political Science includes the disciplinary areas of history, humanities, philosophy, political science and social science, thus serving a kaleidoscope of constituencies on campus. Throughout the department, the primary emphasis is that of providing a broad, general, liberal education; encouraging students to be inquisitive, creative and imaginative as well as functional; and striving to prepare students to be adaptable and flexible in their occupational and professional pursuits but ever cognizant of and responsible to the human condition. The disciplines represented by the department, in the broad sense of the term, should be the 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 History, Humanities, Philosophy and Political Science offers eight majors, nine minors and certification in middle and secondary school social sciences.

The Bachelor of Arts (30 hours) and Bachelor of Science (33 hours) in History 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 Humanities (31-32 hours) is intended for students seeking broad preparation for professional careers. The interdisciplinary nature of this major builds on the foundation of the General Education program culminating in a classical, liberal arts education. This major is designed to be open, broad, flexible and preparatory for a wide range of career and educational interests.

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 (52 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 Public Administration (37 hours) prepares the student for a career in local, state or national government as well as nonprofit organizations. Like the political science major, public administration requires a minor. Majors are required to intern at a governmental agency or at a nonprofit organization.

Minors are available in the areas of history, humanities, philosophy, public history, criminal justice, political science, public administration, economic development and international relations. 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, business and graduate studies.

### **Test-Out Policy**

Credit by examination through the Department of History, Humanities, Philosophy and Political Science 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.

## **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 General Education Requirements.

### **Core Requirements for Majors in History**

	Semester Hours
*Hum 26-102 Western Civilization I: Ancient World to 1500	3
*Hum 26-103 Western Civilization II: 1500 to the Present	3
Hist 33-301 The Historian's Craft and Its Uses	2
Hist 33-401 Senior Seminar	1

<b>Six hours from the following:</b>	6
Hist 33-524 Colony to Nation 1607-1828 (3)	
Hist 33-525 United States Since 1945 (3)	
Hist 33-534 Civil War and Reconstruction (3)	
Hist 33-556 Roots of U.S. Reform (3)	

<b>Total Hours</b>	<b>15</b>
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\*Cannot be used to fulfill any General Education Requirement.

## MAJORS

### Major in History, 30 hours: B.A.—Minor Required

Required Courses	Semester Hours
Core Requirements	15
Advanced history electives to include a minimum of 3 hours in American and non-American history to total 30 hours.	

### Major in History, 33 hours: B.S.—Minor Required

Required Courses	Semester Hours
Core Requirements	15
Advanced history electives to include a minimum of 3 hours in American and non-American history to total 33 hours.	

## MINORS

### Minor in History, 21 hours

Required Courses	Semester Hours
*Hum 26-102 Western Civilization I: The Ancient World to 1500	3
*Hum 26-103 Western Civilization II: 1500 to the Present	3
<b>Choose one course from the following:</b>	<b>3</b>
Hist 33-524 Colony to Nation 1607-1828 (3)	
Hist 33-525 United States Since 1945 (3)	
Hist 33-534 Civil War and Reconstruction (3)	
Hist 33-556 Roots of U.S. Reform (3)	
<b>Advanced history electives to include a minimum of 3 hours each from American and non-American history</b>	<b>12</b>

\*Cannot be used to fulfill any General Education requirement.

### Minor in Public History, 23 hours

Required Courses	Semester Hours
Hist 33-501 Introduction to Public History	3
Hist 33-344 American Folklife	3
Hist 33-590 Historical Resource Internship	3
Hist 33-590 Historical Resource Internship (Directed Archival)	2
PolS 34-332 Principles of Public Administration	3
<b>Electives (Choose from any of the following):</b>	<b>9</b>
Hist 33-350 American Military History (3)	
Hist 33-360 The American Woman (3)	
Hist 33-534 The Civil War and Reconstruction (3)	



- Hist 33-562 State and Local History (3)  
 Hist 33-582 Frontiers in American History (3)  
 Other advisor-approved electives could include:  
     Geographic Information Systems  
     Public Relations  
     Management  
     Federalism  
     Desktop Publishing (Journalism)  
     Advertising

## Humanities / 26

### Advanced Standing Requirement

To be granted advanced standing, all humanities majors must have 1) been assigned an advisor in their major; and 2) complete, with a grade of "C" or better, at least one course in each of the areas of history, government, social science, natural science and humanities from the General Education Requirements.

## MAJOR

### Major in Humanities 31-32 hours: B.A.—Minor Required

Required Courses	Semester Hours
*Hum 26-102 Western Civilization I: Ancient World to 1500	3
*Hum 26-103 Western Civilization II: 1500 to the Present	3
*Phil 39-171 Introduction to Philosophy	3
*Hum 26-104 Humanities: Eastern World OR	
Hist 33-225 Ethnicity in America	3
Hist 33-403 The Middle Ages OR	
Hist 33-506 Renaissance and Reformation	3
Phil 39-377 History of Modern and Contemporary Philosophy OR	
Hist 33-542 American Ideas	3
Hum 26-401 Senior Seminar	1

**Approved Electives: At least one course (3-4 hours) from each of the following groups:**

#### Mathematics, Science and Philosophy

- Math 17-118 College Algebra (3)  
 Math 17-215 Discrete Mathematics (4)  
 Sci Ed 28-550 History of Science and Technology (3)  
 Phil 39-273 Introduction to Logic (3)  
 \*Phil 39-274 Introduction to Ethics (3)  
 Phil 39-374 Philosophy of Religion (3)  
 Phil 39-376 History of Ancient and Medieval Philosophy (3)  
 Phil 39-473 Philosophy of Mind (3)  
 Phil 39-474 Philosophy of the Sciences (3)  
 Phil 39-475 Aesthetics (3)

#### Literature

- \*Eng 10-224 Multiethnic Literature of the United States (3)  
 Eng 10-233 American Literature-Beginnings to 1865 (3)  
 Eng 10-234 American Literature from 1865 to the Present (3)  
 Eng 10-245 English Literature: *Beowulf* through Milton (3)

- Eng 10-246 English Literature: Dryden through the Victorian Period (3)
- Eng 10-343 Survey of Women's Literature (3)
- Eng 10-362 The British Novel (3)
- Eng 10-363 The American Novel (3)
- Eng 10-372 Introduction to Shakespeare (3)

**Fine Arts:**

- Art 13-311 Ancient and Medieval Art (3)
- Art 13-313 Renaissance and Baroque Art (3)
- Art 13-315 Nineteenth and Early Twentieth Century Art (3)
- Mus 19-385 Music Literature: Antiquity through Renaissance (3)
- Mus 19-386 Music Literature: Baroque through Classical (3)
- Mus 19-387 Music Literature: Romantic through the 20th Century (3)
- Th 43-308 Theatre History to 1660 (3)
- Th 43-310 Theatre History: 1660-1900 (3)
- Th 43-312 Theatre History of the 20th Century (3)

**History and Humanities:**

- Hum 26-341 Greek Civilization (3)
- Hum 26-342 Roman Civilization (3)
- Hist 33-310 France Since Louis XIV (3)
- Hist 33-312 History of Russia to 1914 (3)
- Hist 33-315 English History to 1715 (3)
- Hist 33-344 History of American Folklife (3)
- Hist 33-360 The American Woman (3)
- Hist 33-370 History of the Near and Middle East (3)
- Hist 33-375 History of Latin America (3)

\*Cannot be used to fulfill any General Education requirement.

**MINOR****Minor in Humanities, 18 hours**

Semester Hours

Hum 26-341 Greek Civilization	3
Hum 26-342 Roman Civilization	3
Hist 33-403 The Middle Ages	3
Hist 33-506 The Renaissance and Reformation	3
Two 300-level or higher courses in art history, literature or philosophy	6

**Directed General Education Requirement**

Art 13-110 Survey of Art (3 hours) is required as a foundation course for advanced study and must be completed as one of the humanistic studies options within the General Education Requirement for the Major and Minor in Humanities. It cannot be used as a major requirement.

**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 General Education Requirements; and 3) completed, with a grade of "C" or better, Phil 39-171 Introduction to Philosophy.

<b>Core Requirements for Majors In Philosophy</b>	<b>Semester Hours</b>
Phil 39-273 Introduction to Logic	3
*Phil 39-274 Introduction to Ethics	3
Phil 39-376 History of Ancient and Medieval Philosophy	3
Phil 39-377 History of Modern and Contemporary Philosophy	3
Phil 39-570 Metaphysics	3
Phil 39-571 Epistemology	3
Phil 39-401 Senior Seminar	1
<b>Total Hours</b>	<b>19</b>

\*Cannot be used to fulfill any General Education requirement.

## MAJOR

### Major in Philosophy, 31 hours: B.A.—Minor Required

Required Courses	Semester Hours
Core Requirements	19
Two courses from each of the following groups:	
<b>Group A:</b>	6
Hist 33-542 American Ideas (3)	
Phil 39-374 Philosophy of Religion (3)	
Phil 39-475 Aesthetics (3)	
Phil 39-590 Advanced Topics in Philosophy (if appropriate) (3)	
Eng 10-525 Special Studies (if appropriate) (3)	
Com 29-235 Introduction to Classical Rhetoric (3)	
Com 29-330 Semantics and Linguistics (3)	
<b>Group B:</b>	6
Phil 39-473 Philosophy of Mind (3)	
Phil 39-474 Philosophy of the Sciences (3)	
Phil 39-590 Advanced Topics in Philosophy (if appropriate) (3)	
Psych 08-423 History and Systems of Psychology (3)	
Psych 08-473 Cognitive Psychology (3)	
PolS 34-440 Early Western Political Thought (3)	
PolS 34-441 Modern Western Political Thought (3)	
Sci Ed 28-550 History of Science and Technology (3)	

NOTE: Phil 39-590 Advanced Topics in Philosophy cannot be used for the major more than twice. Psych 08-423 and 473 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.

## MINOR

### Minor in Philosophy, 18 hours

Required Courses	Semester Hours
*Phil 39-274 Introduction to Ethics	3
Phil 39-376 History of Ancient and Medieval Philosophy OR	
Phil 39-377 History of Modern and Contemporary Philosophy	3
Phil 39-570 Metaphysics	3
Phil 39-571 Epistemology	3
One elective from each of the groups (A and B) listed in the major requirements, with the following additional options:	

**Group A:**

- Phil 39-376 History of Ancient and Medieval Philosophy OR  
Phil 39-377 History of Modern and Contemporary Philosophy 3

**Group B:**

- Phil 39-273 Introduction to Logic 3

\*Cannot be used to fulfill any General Education requirement.

## Political Science / 34

### Advanced Standing Requirement

All political science majors wishing to apply for advanced standing must have completed the General Education requirement for political science (PoS 34-102).

### 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.

### Core Requirements for Majors in Political Science

Core A—American Government and Politics	Semester Hours
PolS 34-301 Parties and Interest Groups	3
PolS 34-302 The American Presidency	3
PolS 34-303 The American Congress	3
PolS 34-401 News Media and Politics	3
PolS 34-438 Civil Liberties	3
<b>Core B—Comparative Politics and International Relations</b>	
PolS 34-310 Comparative Government	3
PolS 34-421 International Relations	3
PolS 34-510 Comparative Political Systems	3
PolS 34-525 Transnational Politics	3
<b>Core C—Public Administration and Urban Affairs</b>	
PolS 34-203 State and Local Government	3
PolS 34-332 Principles of Public Administration	3
PolS 34-434 Modern Organizational Theory	3
PolS 34-439 Federalism and Intergovernmental Relations	3
PolS 34-502 Public Policy	3
<b>Core D—Normative and Empirical Theory</b>	
PolS 34-436 Constitutional Law	3
PolS 34-440 Early Western Political Thought	3
PolS 34-441 Modern Western Political Thought	3

## MAJORS

### Major in Political Science, 31 hours: B.A.—Minor Required

Required Courses	Semester Hours
Two courses from each of Core A, B, C, D	24
PolS 34-490 Senior Seminar	1
Political Science Electives	6

**Major in Political Science, 37 hours: B.S.–Minor Required**

Required Courses	Semester Hours
Two courses from each of Core A, B, C, D	24
PolS 34-490 Senior Seminar	1
Political Science Electives	12

**Major in Public Administration, 37 hours: B.S.–Minor Required**

Required Courses	Semester Hours
PolS 34-203 State and Local Government	3
PolS 34-439 Federalism and Intergovernmental Relations	3
PolS 34-502 Public Policy	3
PolS 34-332 Principles of Public Administration	3
PolS 34-434 Modern Organizational Theory	3
PolS 34-490 Senior Seminar	1
PolS 34-495 Field Problem in Public Administration (Credit depending upon nature of problem undertaken)	3-8
Political Science Electives	9
Electives	4-9

**MINORS****Minor in Political Science, 24 hours**

Required Courses	Semester Hours
One course from each of Core A, B, C, D	12
Political Science Electives	12

**Minor in Public Administration, 24 hours**

Required Courses	Semester Hours
PolS 34-203 State and Local Government	3
PolS 34-439 Federalism and Intergovernmental Relations	3
PolS 34-502 Public Policy	3
PolS 34-332 Principles of Public Administration	3
PolS 34-434 Modern Organizational Theory	3
Political Science Electives	6
Approved Electives	3

**Minor in Criminal Justice, 24 hours**

Required Courses	Semester Hours
PolS 34-205 Introduction to Criminal Justice	3
PolS 34-315 Juvenile Justice System in America	3
PolS 34-438 Civil Liberties	3
Soc 35-320 Delinquency OR Soc 35-421 Criminology	3
PolS 34-325 American Legal System	3
Psych 08-223 Abnormal Psychology OR Psych 08-333 Developmental Psychology	3
Approved Electives	6

**Minor in Economic Development, 24 hours**

Required Courses	Semester Hours
PolS 34-203 State and Local Government	3
PolS 34-439 Federalism and Intergovernmental Relations	3
PolS 34-502 Public Policy	3
PolS 34-355 Economic Development	3
Econ 52-151 General Economics II	3
Geog 32-221 Economic Geography	3
<b>Choose 6 hours of electives from the following:</b>	<b>6</b>
Soc 35-316 Urban Sociology (3)	
Econ 52-351 Macroeconomic Theory (3)	
PolS 34-332 Principles of Public Administration (3)	
Mkt 55-330 Principles of Marketing (3)	
Geog 32-522 Urban Geography (3)	
Geog 27-515 Environmental Regulation (2)	
PolS 34-311 Practicum in Political Science (1)	

NOTE: Up to four Internship hours can be used as electives with advisor approval.

**Minor in International Studies, 24 hours**

Required Courses	Semester Hours
Modern Language	6
(Minimum of 3 hours must be 200-level or above; all 6 hours must be in the same language)	
**Regional Geography Course	3
Choose one course from the following:	
Geog 32-340 Geography of North America (3)	
Geog 32-441 Geography of Europe (3)	
Geog 32-442 Geography of Asia (3)	
Geog 32-444 Geography of Africa (3)	
Geog 32-445 Geography of Latin America (3)	
PolS 34-310 Comparative Government	3
**Non-Western History Course	3
Choose one course from the following:	
Hist 33-370 History of the Near and Middle East (3)	
Hist 33-375 History of Latin America (3)	
Hist 33-386 The Pacific Rim (3)	
*PolS 34-103 or Econ 52-103 Introduction to Political Economy	3
Electives	6
Choose two courses from the following:	
Art 13-399 International Studies in Studio (3)	
Geog 32-521 Political Geography (3)	
PolS 34-421 International Relations (3)	
PolS 34-525 Transnational Politics (3)	
Econ 52-355 Economic Development (3)	
Econ 52-450 International Economics (3)	
Mkt 55-438 International Business (3)	
Advisor approved courses	

\*Cannot be used to fulfill any General Education requirement.

\*\*Elective sequences should be chosen in consultation with the International Studies advisor.

# 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 General Education Requirements.

<b>Core Requirements for Majors In Social Science</b>	<b>Semester Hours</b>
Econ 52-151 General Economics II	3
Geog 32-101 Introduction to Geography	3
*Hum 26-103 Western Civilization II: 1500 to the Present	3
Hist 33-401 Senior Seminar	1
Hist 33-484 U.S. Economic System	3
Soc 35-101 General Sociology OR	
Soc 35-108 General Anthropology	3
<b>Total Hours</b>	<b>16</b>

\*Cannot be used to fulfill any General Education Requirement.

## MAJOR

### **Comprehensive Major in Social Science, 52 hours: B.S. Ed.– No Minor Required (Certifies Grades 9-12)**

<b>Required Courses</b>	<b>Semester Hours</b>
<b>Core Requirements</b>	<b>16</b>
<b>American History</b>	<b>15</b>
Hist 33-524 Colony to Nation 1607-1828 (3)	
Choose two of the following:	
Hist 33-556 Roots of U.S. Reform (3)	
Hist 33-525 United States Since 1945 (3)	
Hist 33-534 The Civil War and Reconstruction (3)	
Electives in American History (6)	
<b>World History</b>	<b>12</b>
Hist 33-517 England: From Stonehenge to Versailles (3)	
Hist 33-386 The Pacific Rim (3) OR	
Hist 33-370 The History of the Near and Middle East (3)	
Hist 33-312 Russia to 1914 (3) OR	
Hist 33-375 Latin America (3) OR	
Hist 33-513 Soviet Russia (3)	
Electives in World History (3)	
<b>Political Science (choose 2)</b>	<b>6</b>
PolS 34-203 State and Local Government (3)	
PolS 34-302 The American Presidency (3)	
PolS 34-303 The American Congress (3)	
PolS 34-401 News Media and Politics (3)	
<b>Behavioral Science Elective</b>	
Choose one class from Anthropology, Sociology or Psychology	3

**Directed General Education Requirement**

Econ 52-150 General Economics I (3)

Psych 08-303 Educational Psychology and Psych 08-322 Adolescent Psychology are completed as part of the Professional Education requirements.

Soc Sci 36-480 Methods in Secondary School Social Sciences is to be completed as part of the Professional Education requirements.

This major, when completed under the B.S.Ed. degree, Secondary Program will meet Missouri teacher certification standards for Social Studies grades 9-12.

**Certification in Social Science, 21 hours: B.S.Ed.,  
Major in Middle School (Certifies Grades 5-9)**

Required Courses	Semester Hours
*Hum 26-103 Western Civilization II: 1500 to the Present	3
Econ 52-150 General Economics I	3
Soc 35-101 General Sociology	3
Geog 32-101 Introduction to Geography	3
PolS 34-203 State and Local Government	3
Hist 33-484 U.S. Economic System	3
Select one of the following:	3
Hist 33-524 Colony to Nation 1607-1828 (3)	
Hist 33-556 Roots of U. S. Reform (3)	
Hist 33-525 U. S. Since 1945 (3)	
Hist 33-534 Civil War and Reconstruction (3)	

\*Cannot be used to fulfill any General Education Requirement.

This listing meets the Missouri certification standards for concentration requirements under the Middle School Major.

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## Course Descriptions

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### History / 33

**155 America—A Historical Survey  
(3 hours)**

A general education course that will survey the scope of American history through selected chronologically-arranged topics. (F, S, SS)

**225 Ethnicity in America (3 hours)**

Focuses on the historical development of ethnic and racial minorities in America, their inclusion and exclusion, from politics and economy to the mainstream U.S. culture of the middle class. (F, alt. years)

**301 The Historian's Craft and Its Uses  
(2 hours)**

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)

**310 France Since Louis XIV (3 hours)**

An advanced survey of French history from the reign of Louis XIV to the European Community. (S, alt. years)

**312 History of Russia to 1914 (3 hours)**

This course constitutes a survey of Russian history from the Medieval state of Kiev to the Revolution of 1905. (F, alt. years)



**344 History of American Folklife (3 hours)**

A course based on (a) the nature and content of American folklife and folklore, and (b) a practical experience in collecting folklife artifacts of north-west Missouri. (S, alt. years)

**350 American Military History (3 hours)**

A course in the military history of the United States and the relationships of society, politics, diplomacy and economics to the military. (S)

**360 The American Woman (3 hours)**

A survey of the changing roles of women, the changing perception of what women should be and the development of feminism in the United States since settlement. (F, alt. years)

**370 History of the Near and Middle East (3 hours)**

A survey of the history of the Near and Middle East since the time of Mohammed. (S, alt. years)

**375 History of Latin America (3 hours)**

A brief survey of the history of Latin America designed for the general student, foreign language majors and business administration majors. (SS, alt. years)

**386 The Pacific Rim (3 hours)**

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)

**389 Early Modern Europe: The West Meets the World (3 hours)**

An in-depth examination of the society, culture, and international expansion of Europe from the mid-16<sup>th</sup> to the mid-18<sup>th</sup> 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)

**401 Senior Seminar (1 hour)**

A supervised program demonstrating the use of historical research methods with a formal presentation. For senior history/social science majors. Prerequisite: Hist 33-301. (F, S)

**403 The Middle Ages (3 hours)**

A survey of the political and cultural history of Europe from the fall of the Roman Empire to the Renaissance. (S, alt. years)

**484 U.S. Economic System—A Comparative History (3 hours)**

A study of the historical development and an analysis of U.S. economic thought and institutions, and their role as a major force in world economic systems. (F)

**490 Advanced Studies in History (3 hours)**

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.

**499 Independent Study in History (1-2 hours)**

Offered by special arrangement and petition approved by the student's advisor, the instructor involved and the department chairperson.

**500 Special Offerings (1-3 hours)**

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.

**501 Public History (3 hours)**

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)

**506 The Renaissance and Reformation (3 hours)**

An advanced course which presents an in-depth study of the eras of Renaissance and Reformation in Western Europe. (S, alt. years)

**513 Soviet Russia (3 hours)**

After a brief introduction this course will consist of a detailed study of the Bolshevik Revolution in Russia, policies and programs of the Communist Party and Government since 1917, and both domestic and international affairs. (F, alt. years)

**517 England: From Stonehenge to Versailles (3 hours)**

Course is designed as a survey of English history from the earliest inhabitants to the treaty of Versailles. (F)

**521 History of Germany Since 1648 (3 hours)**

An advanced course dealing with the history of modern Germany. (S, alt. years)

**524 Colony to Nation 1607-1828 (3 hours)**

A study of the social, economic, intellectual, cultural and political institutions that arose and developed from English colony to a self-sustaining nation. Emphasis is placed on the colonial experience of Europeans, Africans and Indians continuing through the constitutional period and the development of the new nation. (S)

**525 United States Since 1945 (3 hours)**

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)

**526 Constitutional History of the United States (3 hours)**

An advanced course in American history which deals with the constitutional aspects of our development with considerable reference to constitutional law and interpretation. Recommended particularly for pre-law students and all students planning to teach American Government. (S, alt. years)

**534 The Civil War and Reconstruction (3 hours)**

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 the government, military operations and foreign relations during the war and problems of the Reconstruction Period. (F, alt. years)

**542 American Ideas (3 hours)**

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. (F, alt. years)

**556 Roots of U.S. Reform (3 hours)**

Industrialization, Populism and Progressivism as the basis of reform. Then continuing with the culmination of Reform in the New Deal. (F, alt. years)

**562 The History of Missouri (3 hours)**

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 placed on its historical significance, important figures, government, constitution, current problems and local history. (S, alt. years)

**565 The History of American Foreign Relations (3 hours)**

An introduction to the history of U.S. 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. (F, alt. years)

**582 Frontiers in American History (3 hours)**

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)

**589 Europe in the Age of Nationalism (3 hours)**

An examination of the impact of nationalism upon Europe since the French Revolution. (S, alt. years)

**590 Historical Resources Internship (1-5 hours)**

On-site activity in libraries, museums, historic sites and parks. Credit will vary according to time spent and type of activity. Instructor's permission and prearrangement are required. Maximum credit to be earned is five semester hours.

**Humanities / 26****102 Western Civilization I: The Ancient World to 1500 (3 hours)**

An introduction to the development of Western Culture from the Ancient World through the Renaissance. (F, S, SS)

**103 Western Civilization II: 1500 to the Present (3 hours)**

An introduction to the development of Western Culture from 1500 to the present. (F, S, SS)

**104 The Humanities, The Eastern World (3 hours)**

An introductory survey covering the literary, artistic, philosophical and religious traditions of selected Eastern cultures with special emphasis on China and Japan. (F)

**341 Greek Civilization (3 hours)**

A broad study of the major trends, events and personalities in Greek history until the decline of the Hellenistic monarchies before the rising power of Rome. Special stress is laid upon those controlling concepts of Greek life and thought which form the roots of our modern artistic and intellectual culture. (F, alt. years)

**342 Roman Civilization (3 hours)**

The study of the major trends, events and personalities in Rome's history from its origin to its decline. (F, alt. years)

**380 Special Topics in Humanities (3 hours)**

A survey course in the humanities with topics to be selected by the instructor. May be taken more than once with approval of advisor.

**401 Senior Seminar (1 hour)**

An intensive study of an issue in humanities of the student's choice, in consultation with a faculty advisor, concluding with a research paper and a formal presentation. Prerequisite: The student must have completed at least 21 hours towards the major. (F, S)

**409 Independent Study in the Humanities (1-2 hours)**

Investigation of special problems in any area of study offered (humanities, classics or religion). Consent of instructor necessary.

**500 Special Offerings (1-3 hours)**

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.

**Philosophy / 39****171 Introduction to Philosophy (3 hours)**

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)

**273 Introduction to Logic (3 hours)**

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)

**274 Introduction to Ethics (3 hours)**

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. (F, S)

**374 Philosophy of Religion (3 hours)**

Philosophical inquiry into the nature and function of religion with special emphasis on the problems of the existence and essence of deity. Prerequisite: Phil 39-171 or consent of instructor. (S, alt. years)

**376 History of Ancient and Medieval Philosophy (3 hours)**

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 39-171 or consent of instructor. (F, alt. years)

**377 History of Modern and Contemporary Philosophy (3 hours)**

A survey of the main strands of Western philosophy from the rise of Modernism to the present day. Prerequisite: Phil 39-171 or consent of instructor. (S, alt. years)

**401 Senior Seminar (1 hour)**

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 39-171 and majors with 21 hours in philosophy. (F, S)

**473 Philosophy of Mind (3 hours)**

A study of various philosophical understandings of the nature and functioning of the human mind and their implications. Prerequisite: Phil 39-171 or consent of instructor. (F, alt. years)

**474 Philosophy of the Sciences (3 hours)**

An introduction to the fundamental concepts, methods, and models of science, and how they shape the content of the various scientific disciplines. Prerequisite: Phil 39-171 or consent of instructor. (S, alt. years)

**475 Aesthetics (3 hours)**

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 39-171 or consent of instructor. (F, alt. years)

**500 Special Offerings (1-3 hours)**

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.

**570 Metaphysics (3 hours)**

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 39-171 or consent of instructor. (S, alt. years)

**571 Epistemology (3 hours)**

An inquiry into the nature and function of knowledge claims, the validity of induction and deduction, theories of justification and truth. Prerequisite: Phil 39-171 or consent of instructor. (F, alt. years)

**579 Independent Study in Philosophy (1-2 hours)**

Investigation into special problems in philosophy. Offered only by special arrangement. For majors and minors only.

**590 Advanced Topics (1-3 hours)**

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 39-171 and 15 hours in philosophy or consent of instructor.

**Political Science / 34****102 Introduction to American Government and Politics (3 hours)**

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)

**103 Introduction to Political Economy (3 hours)**

An examination of the interaction of political and economic systems in the U.S. and other countries, how groups in societies are helped and harmed by this interaction and the decision-making processes used. (S)

**105 The African World (3 hours)**

An introduction into Africa's rich histories and cultures, as well as its complex social, economic and political realities. (S, alt. years)

**201 Missouri Politics (1 hour)**

The provisions and principles of the Constitution of the State of Missouri will be examined. (F, S)

**203 State and Local Government (3 hours)**

A study of the functions and structures of state, county and city governments. (F, S)

**205 Introduction to Criminal Justice (3 hours)**

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)

**301 Parties and Interest Groups (3 hours)**

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, alt. years)

**302 The American Presidency (3 hours)**

This course will encompass the political, legal, organizational and policy-making aspects of the American Presidency. (S)

**303 The American Congress (3 hours)**

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)

**310 Comparative Government (3 hours)**

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)

**311 Practicum in Political Science (1-2 hours)**

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. (F, S)

### **315 Juvenile Justice System in America (3 hours)**

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)

### **320 Propaganda in the Movies (3 hours)**

An investigation into the definition and use of motion pictures as a means of spreading political propaganda. Feature movies, cartoons and documentaries will be studied to illustrate the varied themes used as propaganda in both domestic and international contexts. The course studies the environment within which the movies were made and the techniques used by the moviemakers that enhance their value as propaganda. (S, alt. years)

### **325 American Legal System (3 hours)**

A critical analysis of the judicial process from pre-trial through final appellate review, including the activities and motivations of the major participants in the legal system. Consideration is given to the judiciary's policymaking capabilities as well as the legal system's role in the greater political and social context. (F, S)

### **332 Principles of Public Administration (3 hours)**

A study of decision-making processes in public organizations. (F)

### **355 Economic Development (3 hours)**

Examines the theories and strategies for state and community economic development. The focus is on strategies that guide decisions and policies toward the goal of creating and maintaining a sustainable community. Specific attention will be placed upon the creation and encouragement of economic health within the constraints of local values, government regulations and the potential for participation in the national and global economies. (F)

### **401 News Media and Politics (3 hours)**

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, alt. years)

### **421 International Relations (3 hours)**

This course presents a beginning study of the legal and political aspects of relations between the sovereign nations which make up the world community. Primary emphasis will be placed on the development of the system of legal relationships and on the elements of national power which underlie these relations. (F)

### **434 Modern Organizational Theory (3 hours)**

An examination of the evolution of organizational theory in the public sector. Emphasis will be placed upon the public organization's role in society, as well as theory of public management, organizational goals, structure and behavior. (F)

### **436 Constitutional Law (3 hours)**

A study of the constitutional structure of the U.S. government, with particular emphasis on the Supreme Court's role in interpreting the Constitution. Topics including Presidential, Congressional and Judicial power; federal-state relations; the development of equal protection; and the electoral system. (F)

### **438 Civil Liberties (3 hours)**

A study of the U.S. Constitution's protection of fundamental rights, particularly those reflected in the Bill of Rights and the 14th Amendment, and the legal and political context of their exercise. Topics include freedom of speech and expression, religious freedom, rights of the accused, privacy and economic rights. (S)

### **439 Federalism and Intergovernmental Relations (3 hours)**

Investigation and analysis of the American federal system, including its constitutional, political and administrative characteristics. (S)

### **440 Early Western Political Thought (3 hours)**

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. (S, alt. years)

### **441 Modern Western Political Thought (3 hours)**

Main currents of political thought from the 17th century to the present, with a critical evaluation of the elements of continuing worth. (S, alt. years)

### **490 Senior Seminar (1 hour)**

A one hour course designed to give pre-graduation students the opportunity to 1) integrate diverse ele-

ments 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)

**495 Field Problems in Public Administration (3-8 hours)**

A supervised internship in an approved local, state or federal governmental agency including the preparation of a formal written report. Award of credit hours will vary according to the nature of the project undertaken. (F, S, SS)

**499 Independent Study in Political Science (1-3 hours)**

Offered only by special arrangement with the consent of the instructor involved and the department chairperson. (F, S)

**502 Public Policy (3 hours)**

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)

**510 Comparative Political Systems (3 hours)**

A study of the politics of various regions with an emphasis on a comparative analysis. Topics may vary as events and interests dictate. (S)

**511 Special Topics in Political Science (1-3 hours)**

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 to earn no more than six credit hours in total, subject to the approval of the instructor.

**525 Transnational Politics (3 hours)**

An investigation of the structures and functions of international organizations of a political and economic nature. This is an interdisciplinary course that emphasizes the interdependency of international political and economic organizations of a governmental and non-governmental nature. (S)

**Social Science / 36**

**480 Methods in Secondary School Social Sciences (3 hours)**

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. (F)

**500 Special Offerings (1-3 hours)**

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.

# Department of Mathematics and Statistics / 17

**Chairperson:** Dennis Malm

**Faculty:** Christine Benson, Margaret Buerman, Russell Euler, Kurtis Fink, Scott Garten, Cheryl Gregerson Malm, Brian Haile, Christina Heintz, Lynda Hollingsworth, Terry King, Jawad Sadek, Mary Shepherd, David Vlieger, Jennifer Wall, Denise Weiss, Kichoon Yang

## **Statement of Mission**

The mission of the Department of Mathematics and Statistics is to provide a program through which students learn to interpret, solve and explain mathematical problems. The department offers general education and service courses to the University that provide students with mathematical knowledge to assist them in their lifelong learning experiences.

The different courses and programs offered by the department share important common objectives: (a) to provide students, regardless of professional goals, with an awareness of the richness, beauty and power of the mathematical sciences; (b) to provide students with an appreciation of the vitality and extensive utility of the mathematical sciences; (c) to provide students with some insight into the relationship of the mathematical sciences to other areas of human achievement, past and present; and (d) to provide each major with an understanding of the basic structures and concepts in the mathematical sciences. The traditional classroom setting is complemented by the appropriate use of technology, enabling the student to explore those concepts through concrete examples and applications.

## **DEGREE PROGRAMS**

The Department of Mathematics and Statistics offers programs leading to the Bachelor of Arts, Bachelor of Science and Bachelor of Science in Education degrees. The department's programs include undergraduate majors and minors in mathematics, mathematics education and statistics. Each program requires a balanced selection of coursework from both pure and applied areas in the mathematical sciences. Majors can thus prepare for immediate employment in the mathematical sciences or for additional study after graduation.

## **Test-Out Policy**

Undergraduate students may test out of certain lower division courses in mathematics. Examinations are available each trimester during the first week of class. 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 17-120 Calculus I, Math 17-121 Calculus II and Math 17-215 Discrete Mathematics. 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.

### Core Requirements for Majors in Mathematics and Statistics

To achieve the common objectives, all majors in the Department of Mathematics and Statistics are required to complete a common core of 26 semester hours and participate in senior assessment. The department's common core requirements are:

*Math 17-120 Calculus I	4
Math 17-121 Calculus II	4
Math 17-215 Discrete Mathematics	4
Math 17-230 Probability and Statistics	3
Math 17-311 Elementary Linear Algebra	3
Math 17-321 Multivariate Calculus	4
Math 17-496 Senior Paper	1
**CSIS 44-149 Scientific Computing	3
<b>Total Hours</b>	<b>26</b>

\*This course counts as a General Education course as well as a course in the major area.

\*\*CSIS 44-130 Computers and Information Technology is a prerequisite course.

## MAJORS

### Comprehensive Major in Mathematics, 54 hours: B.A., B.S.— No Minor Required

Required Courses	Semester Hours
Core Requirements	26
Math 17-316 General Statistics II	3
Math 17-390 Logic of the Exact Sciences	3
Math 17-415 Introduction to Abstract Algebra	3
Math 17-421 Intermediate Analysis	3
Math 17-492 Seminar in Readings in Mathematics Literature	1
Approved departmental electives	9
Approved electives in a quantitative field (physics, chemistry, economics, computer science)	6

### Comprehensive Major in Mathematics Education, 48 hours: B.S.Ed.—No Minor Required (Certifies Grades 9-12)

Required Courses	Semester Hours
Core Requirements	26
Math 17-280 Methods in Teaching with Technology	3
Math 17-351 College Geometry	3
Math 17-390 Logic of the Exact Sciences	3
Math 17-415 Introduction to Abstract Algebra	3
Math 17-421 Intermediate Analysis	3
Math 17-490 Seminar in History of Mathematics	1
Approved departmental electives	6



Math 17-580 Methods in Secondary School Mathematics is the required subject field methods course.

This major meets Missouri certification standards.

### **Comprehensive Major in Statistics, 54 hours: B.A., B.S.—No Minor Required**

The offering of this major is contingent upon State approval. First planned offering of this major is Fall 2006.

#### **Applied Mathematical Statistics Emphasis**

Required Courses	Semester Hours
Core Requirements	26
Math 17-239 Computationally Intensive Statistical Methods	1
Math 17-316 General Statistics II	3
Math 17-390 Logic of the Exact Sciences	3
Math 17-421 Intermediate Analysis	3
Math 17-492 Seminar in Readings in Mathematics Literature	1
Math 17-532 Nonparametric Statistics	2
Math 17-535 Probability Theory	3
Math 17-536 Statistical Inference	3
Math 17-539 Statistical Projects	1
<b>Approved Electives</b>	<b>8</b>
<b>Total Major Requirements</b>	<b>54</b>
<b>Directed General Education</b>	
Econ 52-150 General Economics I	3

#### **Actuarial Science Emphasis**

Required Courses	Semester Hours
Core Requirements	26
Math 17-239 Computationally Intensive Statistical Methods	1
Math 17-316 General Statistics II	3
Math 17-492 Seminar in Readings in Mathematics Literature	1
Math 17-531 Applied Time Series	2
Math 17-535 Probability Theory	3
Math 17-536 Statistical Inference	3
Math 17-539 Statistical Projects	1
Econ 52-151 General Economics II	3
<b>Choose 11 hours electives from the following:</b>	<b>11</b>
Math 17-361 Differential Equations (3)	
Math 17-421 Intermediate Analysis (3)	
Math 17-530 Sampling (2)	
Math 17-532 Nonparametric Statistics (2)	
Math 17-539 Design of Experiments (2)	
Math 17-511 Applied Linear Algebra (3)	
Math 17-521 Complex Analysis (3)	
Math 17-561 Applied Mathematics (3)	
Math 17-565 Numerical Analysis (3)	
Econ 52-351 Macroeconomic Theory (3)	
Econ 52-353 Microeconomic Theory (3)	

Econ 52-451 Econometrics (3)	
Fin 53-324 Fundamentals of Business Finance (3)	
Fin 53-325 Investment Principles (3)	
Fin 53-327 Intermediate Financial Management (3)	

**Total Major Requirements** 54

**Directed General Education**

Econ 52-150 General Economics I	3
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## MINORS

### Minor in Mathematical Sciences, 24 hours

Required Courses	Semester Hours
*Math 17-120 Calculus I	4
Math 17-121 Calculus II	4
Math 17-215 Discrete Mathematics	4
Math 17-230 Probability and Statistics	3
**CSIS 44-149 Scientific Computing	3
Electives from both mathematics and statistics at the 300, 400, or 500 levels, to total 24 hours	6

\*This course counts as a General Education course as well as a course in the minor area.

\*\*CSIS 44-130 Computers and Information Technology is a prerequisite course.

### Minor in Statistics, 24 hours

Required Courses	Semester Hours
Math 17-114 General Statistics I OR Math 17-230 Probability and Statistics	3
Math 17-316 General Statistics II	3
Math 17-532 Nonparametric Statistics	2
*CSIS 44-149 Scientific Computing	3
Electives from mathematics or statistics, with at least 2 semester hours in statistics, to total 24 hours	13

\*CSIS 44-130 Computers and Information Technology is a prerequisite course.

### Minor in Mathematics Education, 23 hours: B.S.Ed.

Required Courses	Semester Hours
*Math 17-171 Fundamentals of Mathematics	3
Math 17-114 General Statistics I	3
Math 17-117 Precalculus	4
Math 17-120 Calculus I	4
Math 17-280 Methods in Teaching with Technology	3
Math 17-371 Algebra & Geometry for Elementary & Middle School Teachers	3
Math 17-473 Advanced Topics for Middle School Teachers	3

23 Hour Concentration: The required courses total 23 hours. This minor will meet the concentration requirements for the Middle School Major.

Math 17-582 Mathematical Methods for Middle School Teachers is the required subject field methods course.

\*This course counts as a General Education course as well a course in the minor area.

## Minor in Mathematics Education, 30 hours: B.S.Ed., Secondary Program (Certifies Grades 9-12)

Required Courses	Semester Hours
*Math 17-120 Calculus I	4
Math 17-121 Calculus II	4
Math 17-215 Discrete Mathematics	4
Math 17-280 Methods in Teaching with Technology	3
Math 17-351 College Geometry OR Math 17-555 Non-Euclidean Geometry	3
**CSIS 44-149 Scientific Computing	3
Approved electives to total 30 hours, chosen from the following:	9
Math 17-114 General Statistics I (3) OR Math 17-230 Probability and Statistics (3)	
Math 17-321 Multivariate Calculus (4)	
Math 17-311 Elementary Linear Algebra (3)	
Math 17-415 Introduction to Abstract Algebra (3)	
Math 17-421 Intermediate Analysis (3)	
Math 17-518 Number Theory (3)	
A geometry course not used as the required course	

In addition to the 30 hours, Math 17-580 Methods in Secondary School Mathematics must be completed as a degree requirement.

\*Requires a knowledge of trigonometry. Math 17-119 Trigonometry may not be counted as a part of the 30 hours required for this minor.

\*This course counts as a General Education course as well as a course in the minor area.

\*\*CSIS 44-130 Computers and Information Technology is a prerequisite course.

With proper choice of electives, this minor meets minimum Missouri certification standards for grades 9-12. Students should obtain a minor advisor early in the program.

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## Course Descriptions

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### Mathematics and Statistics / 17

#### MATHEMATICS

##### 092 Mathematics Skills I (3 hours)

A basic developmental course. Topics include fundamentals of arithmetic, algebra and numerical geometry. This course does not satisfy the General Education requirement in mathematics or any graduation requirement. (F)

##### 093 Mathematics Skills II (3 hours)

An intermediate-level developmental course to prepare students for Math 17-110, 114, 115, 118,

119 and 171. Topics include graphs, systems of equations and intermediate algebra. This course does not satisfy the General Education requirement in mathematics or any graduation requirement. Prerequisite: Math 17-092 or equivalent, or consent of instructor. (F, S)

##### 110 Finite Mathematics (4 hours)

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 General Education requirement in mathematics. Proficiency examination is available. Prerequisite: Math 17-093 or equivalent.

**115 Concepts of Mathematics (3 hours)**

An explanation of ways in which mathematics is used to understand the contemporary world. Will satisfy the General Education requirement in mathematics. A proficiency examination is available. Prerequisite: Math 17-093 or equivalent. (F, S)

**117 Precalculus (4 hours)**

A course to prepare students to take calculus. Topics include functions and graphs, equations and inequalities, and analytic geometry and trigonometry. A student cannot receive credit for Math 17-117 and 118 or 119. Will satisfy the General Education requirement in mathematics. Prerequisite: 17-093 or equivalent and one unit of high school geometry. (F, S)

**118 College Algebra (3 hours)**

Topics include functions and graphs, systems of equations and inequalities and analytic geometry. Designed for students who plan continued study in college mathematics. Will satisfy the General Education requirement in mathematics. Proficiency examination is available. Prerequisite: Math 17-093 or equivalent. (F, S, SS)

**119 Trigonometry (2 hours)**

Trigonometric functions and analytic trigonometry. Proficiency examination is available. Prerequisites: One unit of high school geometry and Math 17-093 or equivalent. (F, S)

**120 Calculus I (4 hours)**

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 General Education requirement in mathematics. Proficiency examination is available. Prerequisites: Math 17-117 or 118 and 119 or equivalent. (F, S)

**121 Calculus II (4 hours)**

Topics include sequences and series, approximations, techniques and applications of integration and plane curves. Prerequisite: Math 17-120 or consent of instructor. (F, S)

**171 Fundamentals of Mathematics (3 hours)**

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 General

Education requirement in Mathematics. Proficiency examination is available. Prerequisite: Math 17-093 or equivalent. (F, S)

**215 Discrete Mathematics (4 hours)**

An introduction to discrete models; topics include sets, symbolic logic, relations, combinatorics, mathematical induction, probability, vectors and matrices and graph theory. Prerequisites: One unit of high school geometry and Math 17-093 or equivalent. (F, S)

**311 Elementary Linear Algebra (3 hours)**

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. (F)

**321 Multivariate Calculus (4 hours)**

Topics include functions of several variables, partial differentiation and multiple integration. Prerequisite: Math 17-121 or consent of instructor. (F, S)

**351 College Geometry (3 hours)**

A survey of geometry with an emphasis on the theorems and proofs of Euclidean and neutral geometry. Prerequisites: Math 17-120 or consent of instructor. (S)

**361 Differential Equations (3 hours)**

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: Math 17-121 or consent of instructor. (F)

**390 Logic of the Exact Sciences (3 hours)**

Topics include the propositional and predicate calculus and methods of mathematical proof. Prerequisites: Math 17-120 and 215 or consent of instructor. (S)

**415 Introduction to Abstract Algebra (3 hours)**

An introduction to standard abstract algebraic systems. Prerequisite: Math 17-215 or consent of instructor. Math 17-390 recommended. (S)

**421 Intermediate Analysis (3 hours)**

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. Prerequisite: Math

17-321 or consent of instructor. Math 17-390 recommended. (S)

### **490 Seminar in History of Mathematics (1 hour)**

This course is an in-depth study of great historical innovations, thoughts and theories in mathematics. Prerequisite: 22 hours of mathematics. (S)

### **492 Seminar in Readings in Mathematical Literature (1 hour)**

This course is an in-depth study of timely topics for senior students of mathematics. Prerequisite: 22 hours of mathematics. (F)

### **496 Senior Paper (1 hour)**

A supervised paper required of all majors in the department. Prerequisite: 12 hours of mathematics at the 300+ level. (F, S)

### **499 Independent Study (1-3 hours)**

Prerequisite: Consent of instructor.

### **511 Applied Linear Algebra (3 hours)**

A second course in linear algebra with emphasis on applications. Topics may include linear programming, graph theory, game theory, markov chains, computer graphics, equilibrium temperature distributions, electrical networks and least squares models. Prerequisite: Math 17-311 or consent of instructor. (Alt. years)

### **518 Number Theory (3 hours)**

A standard course in classical number theory. Topics include divisibility, congruences, theory of quadratic residues and Diophantine analysis. Prerequisite: 22 hours in mathematics or consent of instructor. (Alt. years)

### **520 Advanced Calculus (3 hours)**

An advanced course in analysis; may include vector analysis, differentials and integration theory. Prerequisite: Math 17-321 or consent of instructor. (Alt. years)

### **521 Complex Analysis (3 hours)**

Topics may include the algebra and geometry of complex numbers, elementary and analytic functions of a complex variable, contour integration, residues, Taylor and Laurent series and basic fundamental theorems. Prerequisite: Math 17-321 or consent of instructor. (Alt. years)

### **555 Non-Euclidean Geometry (3 hours)**

An introduction to plane hyperbolic, elliptic and projective geometries and geometric transformation groups. Prerequisite: 22 hours of mathematics or consent of instructor. (Alt. years)

### **556 Introduction to Point Set Topology (3 hours)**

Topics include metric spaces and axiomatic topology including the separation axioms, product spaces, derived sets, limit points and convergence. Prerequisite: Math 17-321 or consent of instructor. (Alt. years)

### **561 Applied Mathematics (3 hours)**

Topics may include construction and use of mathematical models, probability theory, Markov chains, network analysis, linear programming, differentiation and integration. Prerequisites: Math 17-121, 215 and CSIS 44-149, or consent of instructor. (Alt. years)

### **565 Numerical Analysis (3 hours)**

Topics may include finite differences, numerical differentiation and integration and eigenvalue problems. Prerequisites: CSIS 44-149 and Math 17-121, or consent of instructor. (Alt. years)

### **599 Special Projects (1-6 hours)**

Prerequisites: 30 hours in mathematics or computer science and consent of instructor.

## **STATISTICS**

### **114 General Statistics I (3 hours)**

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 General Education requirement in mathematics. Proficiency examination is available. Prerequisite: Math 17-093 or equivalent. (F, S, SS)

### **230 Probability and Statistics (3 hours)**

Fundamental principles and techniques of statistical investigations including probability, discrete and continuous random variables, estimation and hypothesis testing. Prerequisites: Math 17-120 or consent of instructor. (F, S)

### **239 Computationally Intense Statistical Methods (1 hour)**

This course will develop some statistical procedures that are difficult to implement without the help of the computer software. Prerequisites: CSIS 44-149 and Math 17-114 or 230. (alt. years)

### **316 General Statistics II (3 hours)**

Applied course in statistics, including analysis of variance, multiple regression and the use of SAS, a statistical package. Prerequisite: Math 17-114 or 230, or consent of instructor. (F, SS)

**530 Sampling (2 hours)**

This course contains discussion and applications of the methods of good sampling. Comparisons of techniques are made when more than one method of sampling is possible. Prerequisite: Math 17-114 or 230, or consent of instructor. (Alt. years)

**531 Applied Time Series (2 hours)**

A course in forecasting and some of the statistical techniques that can be used to produce forecasts. Prerequisites: Math 17-114 or 230 or consent of instructor. (Alt. years)

**532 Nonparametric Statistics (2 hours)**

This course emphasizes methods for dealing with populations of unknown distribution and methods to use for ranked data or categorical data. Prerequisites: Math 17-114 or 230 or consent of instructor. (Alt. years)

**535 Probability Theory (3 hours)**

A mathematical development of probability with emphasis on continuous random variables. Prerequisites: Math 17-121 and 230, or consent of instructor. (F, odd years)

**536 Statistical Inference (3 hours)**

A mathematical development of statistics with emphasis on continuous random variables. Prerequisite: Math 17-535. (S, even years)

**537 Design of Experiments (2 hours)**

A course covering many of the statistical designs and techniques widely used in research and applications. Prerequisite: Math 17-316. (Alt. years)

**538 Introduction to Operations Research (2 hours)**

An introduction to some of the basic models and analytical techniques of operations research. Prerequisites: Math 17-114 or 230, Math 17-120, or consent of instructor. (Alt. years)

**539 Statistical Projects (1 hour)**

Formulation and execution of statistical projects with faculty supervision. Prerequisite: Math 17-316.

**MATHEMATICS EDUCATION****280 Methods in Teaching with Technology (3 hours)**

Introduces technological tools and appropriate methods for using them to teach mathematics and science. Topics include dynamic software packages, web explorations, programming of graphing calculators, data collection with probes and analysis, and appropriate methods for teaching with these technologies. Prerequisite: CSIS 44-130 or equivalent. (S)

**371 Algebra and Geometry for Elementary and Middle School Teachers (3 hours)**

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 17-171. (F, S)

**471 Mathematical Methods for Elementary Teachers (3 hours)**

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 17-371. (F, S, SS)

**473 Advanced Topics for Middle School Teachers (3 hours)**

A course designed to provide more fundamental treatment of mathematical topics from 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)

**498 Seminar in Teaching Elementary School Mathematics (1 hour)**

Supervised practice in teaching mathematics in the elementary school with weekly seminar on teaching issues. Prerequisite: Math 17-471.

**575 Workshop in Mathematics Education (1-6 hours)**

Prerequisite: Consent of instructor.

**580 Methods in Secondary School Mathematics (3 hours)**

A study of teaching procedures and current literature useful in teaching secondary school mathematics. Includes a two-week practicum experience. (S)

**582 Mathematical Methods for Middle School Teachers (3 hours)**

This course is a study of current techniques for teaching middle school mathematics, including a two-week practicum experience in the school. Prerequisite: A grade of "C" or better in Math 17-371. (F)

# Department of Military Science / 42

**Chairperson:** Lieutenant Colonel Robert L. Gardner

**Faculty:** Major Brian Stackhouse, Master Sergeant Kenneth Jiles

## Statement of Mission

The Army Reserve Officers Training Corps (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 has a partnership agreement with Missouri Western State University in order 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-level 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, Ken., 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.

### 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.

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)

Eng 10-112 Composition (3)

Eng 10-115 Honors Composition (3)

Eng 10-311 Advanced Composition (3)

Eng 10-315 Technical Writing (3)

Oral Communication Skills (Required)

Com 29-102 Fundamentals of Oral Communication (3)

## 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 \$900 annually paid in two increments of \$450. 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, 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 six-week advanced training camp, normally the summer between the junior and senior years, at Fort Lewis, Wash. 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 Basic Courses (14 credits)**

- MiLS 42-100 Introduction to Military Leadership (1)
- MiLS 42-102 Leadership Practicum (2)
- MiLS 42-105 Rappelling and Military Rifle Marksmanship (1)
- MiLS 42-112 Leadership Practicum (2)
- MiLS 42-202 Leadership Practicum (2)
- MiLS 42-210 Introduction to Survival and Cross-Country Orienteering (2)
- MiLS 42-212 Leadership Practicum (2)
- MiLS 42-220 Advanced Survival Skills (2)

### **Minor in Military Science, 23 hours**

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.

Required Courses	Semester Hours
MiLS 42-300 Leadership and Management I	3
MiLS 42-302 Leadership Practicum	2
MiLS 42-310 Small Unit Leadership and Tactics	3
MiLS 42-312 Leadership Practicum	2
MiLS 42-400 Leadership and Management II	3
MiLS 42-402 Leadership Practicum	2
MiLS 42-410 Army Management and Organizational Systems	3
MiLS 42-412 Leadership Practicum	2
Hist 33-350 American Military History	3

### **Courses Recommended to Enhance Military Leadership (Choose one from each group)**

#### Human Behavior Studies

- Psych 08-103 General Psychology (3)
- Soc 35-101 General Sociology (3)
- Soc 35-365 Social Psychology (3)
- Phil 39-274 Introduction to Ethics (3)

#### Management and Economics

- Mgmt 54-313 Management Process and Behavior (3)
- Mgmt 54-314 Human Resource Management (3)
- Mgmt 54-316 Organizational Theory and Behavior (3)
- Econ 52-150 General Economics (3)

#### National Security Studies

- PolS 34-102 Introduction to American Government and Politics (3)
- PolS 34-421 International Relations (3)
- Geog 32-521 Political Geography (3)
- Geog 32-101 Introduction to Geography (3)
- Geog 32-102 Peoples and Cultures of the World (3)

### **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, all basic course instruction is presented on campus. Various field trips are conducted to further enrich students' leadership skills for advanced-course students.

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## Course Descriptions

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### Military Science / 42

#### **100 Introduction to Military Leadership (1 hours)**

Topics include: leadership tips for life success, decision making, the role of the total Army (to include the citizen-soldier concept), team building, great leaders, customs and traditions of the service. Emphasis on defining and applying leadership through problem-solving and reaction course scenarios.

#### **102 Leadership Practice (2 hours)**

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.

#### **105 Rappelling and Military Rifle Marksmanship (1 hour)**

Teaches techniques and methods of rappelling, rope management, knot tying, small bore rifle marksmanship and range safety.

#### **112 Leadership Practicum (2 hours)**

Continuation of MiS 42-102. 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.

#### **202 Leadership Practicum (2 hours)**

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.

#### **210 Introduction to Survival and Cross-Country Orienteering (2 hours)**

Introduction to survival techniques, how to read a map and use a compass to negotiate a land navigation course. Provides basic tips about how to survive in the outdoors. Prerequisites: MiS 42-100 and MiS 42-105, or consent of department chairperson.

#### **212 Leadership Practicum (2 hours)**

Continuation of MiS 42-202 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.

#### **220 Advanced Survival Skills (2 hours)**

Provides the student with knowledge and practical experience in field expedient first aid and selected survival subjects. Emphasis on first aid, land navigation, shelters, traps and snares, and water procurement.

#### **300 Leadership and Management I (3 hours)**

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 MiS 42-302.

#### **302 Leadership Practicum (2 hours)**

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 MiS 42-300.

**310 Small Unit Leadership and Tactics (3 hours)**

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 42-300, advanced-course status, required to be taken concurrently with MiLS 42-312.

**312 Leadership Practicum (2 hours)**

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 42-310.

**400 Leadership and Management II (3 hours)**

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 42-402.

**402 Leadership Practicum (2 hours)**

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 42-400.

**410 Army Management and Organizational Systems (3 hours)**

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 42-412.

**412 Leadership Practicum (2 hours)**

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 42-410.

**450 Independent Study in Military Science (1-5 hours)**

Investigates selected leadership problems or topics on an individual or conference basis. Prerequisite: Consent of department chairperson.

# Department of Music / 19

**Chairperson:** Ernest Woodruff

**Faculty:** Vincent Bates, Rebecca Dunnell, Christopher Gibson, Carl Kling, Ernest Kramer, Brian Lanier, Anthony Olson, Sheila Phillips, William Richardson, Pamela Shannon, Stephen Town

## **Accreditation**

Since 1969, Northwest Missouri State University has been a member of the National Association of Schools of Music. Both the B.S.Ed. 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 Mission**

The Department 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.

The programs of the Department of Music provide majors with the skills needed to become highly successful in their chosen professions. The department 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 Music 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 programs 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**

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 Science in Education, Elementary/Secondary Program, with a comprehensive major in either Instrumental Music Education (57 hours) or Vocal Music Education (55 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**

Credit by examination through the department is available for the following courses only: Mus 19-171 (Beginning Sight Singing and Ear Training), Mus 19-172 (Intermediate Sight Singing and Ear Training), Mus 19-173 (Theory of Music), Mus 19-174 (Theory of Music), Mus 19-271 (Advanced Sight Singing and Ear Training I) and Mus 19-272 (Advanced Sight Singing and Ear Training II).

For policies and procedures see the “Departmental Test-Out” section of this catalog. Advanced Placement (AP) credit is available for Mus 19-173 (Theory of Music) and Mus 19-201 (Enjoyment of Music) with a score of “4” on the appropriate test.

### **Upper-Level Standing in Applied Study**

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**

**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.S.Ed. program are required to satisfactorily participate in Marching Band, Symphonic Band, Wind Symphony, University Chorale or Orchestra according to their major (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 each fall or spring trimester of full-time enrollment.

**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 insure that each student possesses a significant level of competence in music before entering the theory sequence.

**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.S.Ed. degree are required to satisfactorily 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. Continued enrollment in keyboard study for credit or successful audit (i.e. minimum of 65% attendance) and continued attempts to complete the examination requirement are required until the examination has been passed. 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 Ed 61-490 (Directed Teaching in Elementary and Secondary School).

**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 Music and online at <http://www.nwmissouri.edu/dept/music/pdfs/handbook.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 19-271 (Advanced Sight Singing and Ear Training I) or Mus 19-272 (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 19-271 or 19-272. This requirement is a prerequisite to enrollment in Ed 61-490 (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.

## Music Core Requirements

The Department of Music 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.

<b>Core Requirements for Majors in Music:</b>	<b>Semester Hours</b>
Mus 19-171 Beginning Sight Singing and Ear Training	1
Mus 19-172 Intermediate Sight Singing and Ear Training	1
Mus 19-173 Theory of Music	3
Mus 19-174 Theory of Music	3
Mus 19-271 Advanced Sight Singing and Ear Training I	1
Mus 19-272 Advanced Sight Singing and Ear Training II	1
Mus 19-273 Theory of Music	3
Mus 19-274 Theory of Music	3
Mus 19-385 Music Literature: Antiquity through Renaissance (BC-1600)	3
Mus 19-386 Music Literature: Baroque through Classic (1600-1827)	3
Mus 19-387 Music Literature: Romantic through 20th Century (1827-present)	3
Mus 19-472 Musical Form and Analysis OR	
*Mus 19-493 Choral Composition and Arranging OR	
**Mus 19-494 Instrumental Composition and Arranging	2
Mus 19-499 Senior Recital	1
Mus 19-299 Music Recital Attendance (activity credit )	7 hours (B.S.Ed.)
8 hours (B.A.)	
<b>Total Hours</b>	<b>28</b>

\* Required for Vocal Music Education

\*\* Required for Instrumental Music Education

### **Applied Music:**

Included in the requirements for the **B.S.Ed.** 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.

## **MAJORS**

### **Comprehensive Major in Instrumental Music Education, 57 hours: B.S.Ed., Elementary/Secondary Program—No Minor Required (Certifies Grades K-12)**

<b>Required Courses</b>	<b>Semester Hours</b>
Music Core Requirements	28
Applied Music: Major Instruments, 8 hours; Piano (or other keyboard instrument), 3 hours; Electives, 2 hours. For Piano as a Major Instrument: Piano (or other keyboard instrument), 8 hours; Wind or Percussion, 5 hours.	13
Mus 19-220 Brass Methods	2
Mus 19-221 Percussion Methods	2
Mus 19-240 String Methods	2
Mus 19-260 Woodwind Methods	2
Mus 19-391 Elements of Conducting	2
Mus 19-481 Methods in Elementary School Music	2
Mus 19-421 Instrumental Conducting	2



Vocal Electives selected from Mus 19-250 Vocal Methods, 19-151 Applied Voice Class, or 19-152 Applied Voice Class	2
Instrumental ensembles taken for academic or activity credit selected from Mus 19-110 or 111, 19-115 or 116, 19-118, 19-119, 19-209 or 210 (each fall and spring trimester of fulltime enrollment, 7 trimesters minimum)	(7)
Mus 19-482 Methods in Secondary School Instrumental Music is to be included in the education-psychology requirements.	

This major meets Missouri teacher certification requirements in instrumental music K–12.

**Comprehensive Major in Vocal Music Education, 55 hours:  
B.S.Ed., Elementary/Secondary Program—No Minor Required  
(Certifies Grades K-12)**

Required Courses	Semester Hours
Music Core Requirements	28
Applied Music: Voice Concentration: Voice, 8 hours; piano (or other keyboard instrument), 4 hours; electives, 1 hour. For Piano Concentration: Piano, 8 hours; voice, 5 hours	13
Mus 19-250 Vocal Methods	2
Mus 19-270 Instrumental Methods for Non-Instrumental Majors	2
Mus 19-391 Elements of Conducting	2
Mus 19-481 Methods in Elementary School Music	2
Mus 19-420 Choral Conducting	2
Mus 19-592 Junior High School Music Methods	2
Mus 19-593 Choral Literature for the Secondary School	2
Vocal ensembles taken for either academic or activity credit: Mus 19-112, or 113 University Chorale (each fall and spring trimester of fulltime enrollment, 7 trimesters minimum)	(7)
Approved music electives as needed to total 55 hours	
Mus 19-484 Methods in Secondary School Vocal Music is to be included in the education-psychology requirements.	

This major meets Missouri teacher certification requirements in vocal music K–12.

**Comprehensive Major in Music, 41 hours: B.A.—No Minor Required**

Required Courses	Semester Hours
Music Core Requirements	28
Applied music courses as recommended by advisor	10
University music ensembles taken for academic or activity credit selected from Mus 19-110 or 111, 19-115 or 116, 19-118, 19-119, 19-209 or 210, 19-112 or 113. (each fall and spring trimester of fulltime enrollment, 8 trimesters minimum)	(8)
Approved music electives as needed to total 41 hours	

**SPECIAL NOTES:** Care should be exercised in choosing courses to assure a minimum of 32 semester hours of work in courses numbered above 300.

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.

## MINOR

### Minor in Music, 24 hours

Required Courses	Semester Hours
Mus 19-171 Beginning Sight Singing and Ear Training	1
Mus 19-172 Intermediate Sight Singing and Ear Training	1
Mus 19-173 Theory of Music	3
Mus 19-174 Theory of Music	3
Literature and History of Music (by advisement)	6
Applied music courses	6
Mus 19-299 Music Recital Attendance (activity credit)	(4)
Music electives as needed to total 24 hours	
University music ensembles taken for either academic or activity credit selected from Mus 19-110 or 111, 19-115 or 116, 19-118, 19-119, 19-209 or 210, 19-112 or 113. (7 trimesters minimum)	(7)

This minor does not meet Missouri teacher certification requirements. It is recommended for students pursuing a B.A. or B.S. degree.

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## Course Descriptions

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### Music / 19

#### 200 Special Offerings (1-4 hours)

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.

#### 201 The Enjoyment of Music (3 hours)

A general education course designed to provide the student a better understanding and appreciation of the varied styles of music. Fulfills Fine Arts component of General Education requirements. (F, S, SS)

#### 225 Jazz Improvisation (2 hours)

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.

#### 299 Music Recital Attendance (1 activity hour)

Attendance at recitals and concerts presented by the Department of Music is required of each music major and minor. B.S.Ed. 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)

#### 400 Special Offerings (1-4 hours)

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.

#### 419 Independent Study in Music (1-2 hours)

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.

#### 499 Senior Recital and Seminar (1 hour)

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)

#### 500 Special Offerings (1-4 hours)

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.

## 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.

### Class Piano (1 hour each)

131, 132, 231, 232. Class Piano 1-4

### Voice Class (1 hour each)

151, 152. Applied Voice Class

**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 in a trimester and requires a minimum of five hours of practice per week. Courses may be repeated for additional credit.

### Brass (1-2 hours each)

123, 323, 523. Applied Trumpet  
124, 324, 524. Applied French Horn  
125, 325, 525. Applied Trombone  
126, 326, 526. Applied Baritone  
127, 327, 527. Applied Tuba

### Harpichord (1-2 hours each)

137, 337, 537. Applied Harpichord

### Organ (1-2 hours each)

135, 335, 535. Applied Organ

### Percussion (1-2 hours each)

128, 328, 528. Applied Percussion

### Piano (1-2 hours each)

130, 330, 530. Applied Piano

### Strings (1-2 hours each)

145, 345, 545. Applied Violin  
146, 346, 546. Applied Viola  
147, 347, 547. Applied Cello  
148, 348, 548. Applied Bass

### Voice (1-2 hours each)

155, 355, 555. Applied Voice

### Woodwind (1-2 hours each)

164, 364, 564. Applied Flute  
165, 365, 565. Applied Oboe  
166, 366, 566. Applied Clarinet  
167, 367, 567. Applied Saxophone  
168, 368, 568. Applied Bassoon

### 520 Secondary Applied Study (1 hour)

Private lessons in the areas of vocal, instrumental and keyboard study which are outside the student's primary area of applied accomplishment. Repeatable. Prerequisite: Consent of instructor.

## 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 ensembles as courses may be repeated for additional credit as per the limitations in individual course descriptions.

### 110 Marching Band (1 hour)

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 19-111. (F)

### 111 Marching Band Activity (1 hour activity credit)

Marching activities and performance during the football season. Credit cannot be received for this course in the same trimester of enrollment in Mus 19-110. (F)

### 112 University Chorale (1 hour)

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 19-113. (F, S)

**113 University Chorale Activity  
(1 hour activity credit)**

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 19-112. (F, S)

**115 Symphonic Band (1 hour)**

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 19-116. (S)

**116 Symphonic Band Activity  
(1 hour activity credit)**

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 19-115. (S)

**118 Orchestra (1 hour)**

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.

**119 Orchestra Activity  
(1 hour activity credit)**

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 19-118.

**203 Madrigal/Show Choir (1 hour)**

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 19-204. (F, S)

**204 Madrigal/Show Choir Activity  
(1 hour activity credit)**

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 19-203. (F, S)

**205 Jazz Ensemble (1 hour)**

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 19-206. (F, S)

**206 Jazz Ensemble Activity  
(1 hour activity credit)**

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 19-205. (F, S)

**207 Tower Choir (1 hour)**

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 19-208. (F, S)

**208 Tower Choir Activity  
(1 hour activity credit)**

Select choral ensemble. Prerequisite: Audition. Credit cannot be received for this course in the same trimester of enrollment in Mus 19-207. (F, S)

**209 Wind Symphony (1 hour)**

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 19-210. (F, S)

**210 Wind Symphony Activity  
(1 hour activity credit)**

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 19-209. (F, S)

**212 Brass Ensemble  
(1 hour activity credit)**

A variety of brass ensembles of varying sizes and instrument combinations. Prerequisite: Permission of instructor. (F, S)

**214 Woodwind Ensemble  
(1 hour activity credit)**

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)

**215 Jazz Combo  
(1 hour activity credit)**

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)

**218 University Singers  
(1 hour activity credit)**

Small choral group performing a variety of literature. Prerequisite: Permission of instructor. (F, S)

**219 Percussion Ensemble  
(1 hour activity credit)**

A variety of percussion ensembles of varying sizes and instrument combinations. Prerequisite: Permission of instructor. (F, S)

**LITERATURE AND HISTORY**

**385 Music Literature: Antiquity through Renaissance (BC-1600)  
(3 hours)**

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: Mus 19-173 or 174, or 201 for non-majors. (F)

**386 Music Literature: Baroque through Classic (1600-1827) (3 hours)**

A survey of the development of Western music from the Baroque era through Beethoven, with continued emphasis on development of listening skills. Prerequisite: Mus 19-173 or 174, or 201 for non-majors. (S)

**387 Music Literature: Romantic through the 20th Century (1827-present)  
(3 hours)**

A survey of the development of Western music from Schubert to the present with continued emphasis on the development of listening skills. Prerequisite: Mus 19-385 or 386, or 201 for non-majors. (F)

**METHODS AND MATERIALS**

**220 Brass Methods (2 hours)**

Development of the basic skills and techniques of playing and teaching brass instruments. (F, odd years)

**221 Percussion Methods (2 hours)**

Development of basic skills and techniques of playing and teaching percussion instruments. (S, even years)

**240 String Methods (2 hours)**

Development of the basic skills and techniques of playing and teaching orchestral string instruments. (F, even years)

**250 Vocal Methods (2 hours)**

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)

**260 Woodwind Methods (2 hours)**

Development of the basic skills and techniques of playing and teaching woodwind instruments. (S, odd years)

**270 Instrumental Methods for Non-Instrumental Majors (2 hours)**

Development of functional ability in wind, string, brass and percussion instruments. Instrumental music majors may not receive credit for this course. (S)

**380 Music in the Elementary School  
(2 hours)**

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 19-201 or Art 13-102 (F, S, SS)

**391 Elements of Conducting (2 hours)**

Baton technique and the elements of interpretation in conducting choral and instrumental groups. (F)

**402 Music Practicum (1 hour)**

Supervised classroom/rehearsal observation and teaching in various music activities. Enrollment by faculty selection. May be repeated but only two hours may count as an elective toward an undergraduate degree.

**420 Choral Conducting (2 hours)**

A refinement and augmentation of the choral foundation provided in Mus 19-391. Prerequisite: Mus 19-391. (S)

**421 Instrumental Conducting (2 hours)**

A refinement and augmentation of the foundation provided in Mus 19-391, with specific attention to instrumental (orchestra and band) conducting. Prerequisite: Mus 19-391. (S)

**481 Methods in Elementary School Music (2 hours)**

A study of methods and materials for music in the elementary school. Music majors or minors only. (S)

**482 Methods in Secondary School Instrumental Music (3 hours)**

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)

**484 Methods in Secondary School Vocal Music (2 hours)**

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)

**501 Elementary Music Education: Special Topics (1-3 hours)**

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.

**502 Junior High Music Education: Special Topics (1-3 hours)**

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. (SS)

**503 Senior High Music Education: Special Topics (1-3 hours)**

A study of selected methods and/or materials for music instruction in the senior high school with particular attention being given to recent developments and current issues. (SS)

**551 Principles of Singing (2 hours)**

Processes in vocal pedagogy: respiration, phonation, articulation and resonance. Students will study English, Italian, German and French diction and there will be a survey of the vocal repertoire. (SS, even years)

**582 Advanced Instrumental Conducting (2 hours)**

An application of conducting practices in interpretation, style and performance through the study of representative works for concert band, wind ensemble and orchestra. (SS, even years)

**583 Advanced Choral Conducting (2 hours)**

Study of representative large works through conducting practices in interpretation, style and performance. (SS, odd years)

**587 Literature for Elementary and Middle Schools (2 hours)**

A study of course materials and methods for elementary and middle school music classrooms.

**590 Early Childhood Music (2 hours)**

Designed to assist the early childhood teacher in developing better techniques of teaching music to ones' specific levels.

**591 Marching Band Technique (2 hours)**

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. (F, odd years)

**592 Middle School/Junior High Music Methods (2 hours)**

A study of the materials and methods employed in the junior high and middle school. (S)

**593 Choral Literature for Secondary Schools (2 hours)**

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. (F)

**594 Instrumental Literature for Secondary Schools (2 hours)**

A historical and stylistic survey of music for the wind band with particular emphasis on compositions appropriate for secondary school ensembles. (F)

**595 Problems in Instrumental Music (2 hours)**

A study of current trends, standards, materials and practices in administering, organizing and maintaining a successful instrumental music program. (S)

**596 Problems in Vocal Music (2 hours)**

Current practices in administration and organization of school vocal programs. (S)

**597 Comparative Methods in Elementary Music (2 hours)**

A survey of today's methods of teaching music education in the elementary school with emphasis on techniques employed by Zoltan Kodaly, Carl Orff and Dalcroze.

**THEORY**

**103 Foundations of Music Theory (2 hours)**

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 general education requirement in music nor count as a music elective toward any major or minor in the Department of Music. (F)

**171 Beginning Sight Singing and Ear Training (1 hour)**

Development of skills in dictation, sight singing, notation and the aural comprehension of music. Prerequisite: Mus 19-103 or score of 70 on Theory Placement Examination. (S)

**172 Intermediate Sight Singing and Ear Training (1 hour)**

A continuation of Mus 19-171 including chromatic relationships, more difficult rhythmic grouping and two-part music. Prerequisite: Mus 19-171. (F)

**173 Theory of Music (3 hours)**

An intensive course in the fundamentals of music including scales, modes, intervals, tonality and the four types of triads. Prerequisite: Mus 19-103 or score of 70 on Theory Placement Examination. (S)

**174 Theory of Music (3 hours)**

Introduction to harmony and part-writing, figured bass, the principal triads in root position and the dominant seventh in root position. Prerequisite: Mus 19-173. (F)

**271 Advanced Sight Singing and Ear Training I (1 hour)**

A continuation of Mus 19-172 including more difficult intervallic, melodic, harmonic and rhythmic problems. Prerequisite: Mus 19-172. (S)

**272 Advanced Sight Singing and Ear Training II (1 hour)**

A continuation of Mus 19-271 progressing to the most difficult intervallic, melodic, harmonic and rhythmic problems. Prerequisite: Mus 19-271. (F)

**273 Theory of Music (3 hours)**

A continuation of Mus 19-174 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 19-174. (S)

**274 Theory of Music (3 hours)**

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 19-273. (F)

**472 Musical Form and Analysis (2 hours)**

Analytical study of the musical forms employed in the vocal and instrumental compositions of Bach, Mozart, Beethoven, Wagner and other master composers. Prerequisite: Mus 19-274. (F)

**493 Choral Composition and Arranging (2 hours)**

Principles and practices of composing and arranging for choirs and small vocal ensembles. Prerequisites: Mus 19-272 and 274. (S)

**494 Instrumental Composition and Arranging (2 hours)**

Principles and practices of composing and arranging for school orchestras, bands, and other instrumental ensembles. Prerequisites: Mus 19-173, 174, 273, and two of the following: Mus 19-220, 221, 240, 260. (S)

# The Honors Program

**Dean of the College of Arts and Sciences:** Charles A. McAdams

In its continuing effort to expand educational opportunities while maintaining academic excellence for undergraduates, Northwest Missouri State University introduced the Honors Program beginning Fall 2005. The Honors Program was created in recognition of the academic needs of high achieving students. The program creates an academic environment that not only challenges the most highly motivated undergraduate students, but benefits the entire Northwest community.

The Honors Program contributes to Northwest's vision of an institution that is "... a student-centered community of scholars with high expectations." Consequently, the program operates in the following environment:

- The Honors Program is an intellectual sanctuary designed to enhance the educational experience of highly talented and exceptionally motivated undergraduate students.
- Students are expected to realize their full potential by being active learners in a stimulating academic environment that nurtures and enriches their talents.
- The Honors environment represents academic excellence where an ethical commitment to learning is integrated with a passionate spirit of inquiry and a critical understanding of the responsibilities of global citizenship. By bringing together the ideas from diverse traditions of knowledge for analysis and understanding, the Honors Program promotes independent thinking and helps prepare creative and innovative leaders to meet emerging challenges in our global community.

## Honors Program Policies, Expectations and Requirements

The Honors Program is specifically targeted for motivated and high-ability students. During the first trimester, the Honors student typically enrolls in two Honors classes. These classes are sections of existing courses that are enhanced for the Honors students, not separate free-standing courses. Class size limits for Honors sections provide ample opportunity for students to express themselves and interact more closely with professors and classmates in an intellectually enriching environment. Honors sections will typically involve the following:

- more extensive reading and/or more ambitious laboratory work
- more intellectual territory and in-depth conversation
- exploring connections within and among disciplines
- relating of course material to a diverse global society
- challenging educational experience beyond the classroom
- more 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 competitively selected from eligible applicants.

### Program Continuation Requirements

- Honors students must maintain a 3.50 cumulative GPA each trimester. If a student falls below 3.50 GPA, the student has one trimester of probation to regain a 3.50 cumulative GPA or be removed from the program for at least one trimester and must reapply for admission to the program.

### Graduation Requirements

To graduate with Honors, a student must:

- complete at least 21 hours in Honors sections of the required General Education courses
- maintain a 3.50 cumulative GPA
- present an acceptable Honors Senior Portfolio (reviewed by the Honors Program Committee)
- Take only Northwest Missouri State University's Honors Program courses

### Co-Curricular Activities

- Special colloquia, field trips, etc. are available for enrichment and limited to Honors students only.
- Honors students have the privilege of an early preregistration for classes.
- 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 Honors faculty.
- At graduation, a special convocation is held for Honors students and their families in addition to the regular commencement ceremonies.
- Students receive an Honors cord for graduation (transcript and diploma will carry the Honors designation).

### Honors Section Enhancement

In the current design of the Honors Program, the term 'Honors courses' refers to sections of existing courses, not separate free-standing courses. Enhancements to existing courses offered as part of the general education program at Northwest are tailored to the content of the specific course.

# The Honors Program / H

**Director of the Honors Program:** Cleopas T. Samudzi

## **Statement of Mission**

The Honors Program provides highly motivated and talented students with an academically enriched educational experience. Through limited class size and close interaction between students and faculty, the program provides talented students with a deeper understanding of content and a deeper learning experience, and an opportunity to develop critical thinking and discussion skills that prepare them for a dynamic world. The Honors Program integrates an ethical commitment to learning with a passionate spirit of inquiry and a critical understanding of the responsibilities of global citizenship. By bringing together the ideas from diverse traditions of knowledge for analysis and understanding, the Honors Program promotes independent thinking and helps prepare creative and innovative leaders to meet emerging challenges in our global community.

## **The Honors Program Curriculum**

Northwest Missouri State University's General Education Requirements are outlined on pages 69-72. The Honors Program requires a minimum of 21 credit hours from this general education program. Honors sections will be designated with an "H" in the course title as listed in the *Course Offerings* and on the student transcript.

# **Melvin D. and Valorie G. Booth College of Business and Professional Studies**

*Dr. Thomas Billesbach, Dean*

- Department of Accounting, Economics and Finance
- Department of Agriculture
- Department of Computer Science/Information Systems
- Department of Marketing and Management
- Department of Mass Communication

# Melvin D. and Valorie G. Booth

## College of Business and Professional Studies

**Dean:** Thomas Billesbach

**Centers:** Small Business Development

The Melvin D. and Valorie G. Booth College of Business and Professional Studies includes the departments of Accounting, Economics and Finance; Agriculture; Computer Science/Information Systems; Marketing and Management; and Mass Communication.

### **Statement of Mission**

The overall mission of the Melvin D. and Valorie G. Booth College of Business and Professional Studies is to continue to expand and improve access to learning by developing partnerships with men and women so that, together, we can acquire appropriate knowledge and skills, apply those knowledges and skills to new situations, and to act accordingly. As a result of that mission, we prepare men and women for leadership careers in business, industry, education, government, broadcasting, publications, news reporting and public service. Four major areas of education are involved in the development process:

1. A foundation in general education in full recognition that as future organizational leaders, students should have a firm understanding of the relationships to social, economic, political and cultural trends.
2. A professional component that provides a broad understanding of the fundamentals through which a particular discipline operates.
3. An opportunity to specialize in a discipline relevant to a chosen career.
4. An understanding of trends in science and technology and how those areas influence social, economic, political and cultural trends.

Important objectives of the Melvin D. and Valorie G. Booth College of Business and Professional Studies 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.

Continuing opportunities are made available to students to participate in meetings with business, industrial and public service leaders, as well as outstanding professionals from various disciplines.

Participation in student organizations as well as business and government internships provide realistic opportunities for students to relate to future leadership roles.

Programs in the Melvin D. and Valorie G. Booth College of Business and Professional Studies offer courses leading to the Bachelor of Arts, Bachelor of Science, Bachelor of Science in Education, Master of Science in Education, Master of Science in Agriculture, Master of Science in Applied Computer Science, Master of Business Administration, Master of Business Administration with Accounting Emphasis, Master of Business Administration with Management Information Systems Emphasis, Master of Business Administration with Health Management Emphasis, Master of Business Administration with Quality Emphasis and Master of Business Administration with Agricultural Economics Emphasis degrees.

Web-based programs leading to a Bachelor of Science with a major in accounting, management or marketing are currently available. Additional programs are being developed.

### **Accreditation**

Northwest Missouri State University, through its Melvin D. and Valorie G. Booth College of Business and Professional Studies, is nationally accredited by the Association of Collegiate 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, office information systems, business education, business management, international business and marketing. These accredited programs are marked with a pound sign (#) in the departmental listings. 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.

### **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 program 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 (6 semester hours)
- Managerial Communication (3 semester hours)
- Macroeconomics (3 semester hours)
- Microeconomics (3 semester hours)
- Business Law (3 semester hours)
- Fundamentals of Finance (3 semester hours)
- Principles of Management (3 semester hours)
- Principles of Marketing (3 semester hours)

Any equivalent Northwest business course taken at another regionally-accredited institution 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 or the dean's office.

## 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 education, business management, finance, international business, management information systems, marketing or office information systems are required to fulfill the following professional component requirements.

All students majoring in Public Accounting, Private Accounting, Business Economics, Business Management, Financial Services, Financial Computing, Corporate Finance, Financial Management, International Business or Marketing must earn a minimum grade of "C" in all Common Professional Component and required courses.

General Education Courses	Semester Hours
*Math 17-114 General Statistics I	3
*Econ 52-150 General Economics I (Macroeconomics)	3
<b>Total General Education Requirements</b>	<b>6</b>
<b>Non-business Courses</b>	
Math 17-118 College Algebra	3
CSIS 44-130 Computers and Information Technology	3
Econ 52-151 General Economics II (Microeconomics)	3
<b>Total Non-business Requirements</b>	<b>9</b>
<b>Business Courses</b>	
Acct 51-201 Accounting I	3
Acct 51-202 Accounting II	3
Fin 53-311 Business Law I	3
Fin 53-324 Fundamentals of Business Finance	3
Mgmt 54-310 Managerial Communication	3
Mgmt 54-313 Principles of Management	3
Mgmt 54-315 Operations Management	3
Mgmt 54-417 Organizational Policy and Decision-Making	3
Mkt 55-330 Principles of Marketing	3
Mkt 55-438 International Business	3
CSIS 44-317 Management Information Systems	3
<b>Total Business Requirements</b>	<b>33</b>

\*These courses fulfill General Education requirements and are not counted toward the major requirements.

Courses listed under the appropriate major must be completed in addition to the above common professional component requirements.

Non-business students majoring in computer science, interactive digital media, or economics are not required to fulfill the common professional component requirements.

Minors are available in business education, computer science, economics, general business, agricultural science, agronomy, commercial agriculture, horticulture, broadcasting, journalism, interactive digital media, computer networking, database management systems, computer applications and systems management.

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## Course Description

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**Melvin D. and Valorie G.  
Booth College of  
Business and Professional  
Studies / 76**

**101 Freshman Seminar (1 hour)**

Freshman seminar is designed to introduce students to Northwest Missouri State University.

Topics of exploration will include 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, taking advantage of cultural and extra-curricular events, and assuming responsibility for one's own University experience.

# Department of Accounting / 51, Economics / 52 and Finance / 53

**Chairperson:** J. Patrick McLaughlin

**Faculty:** John Baker, Ben Collier, Doni Fry, Mark Jelavich, Alfred B. Kelly, V. C. Kharadia, Stephen Ludwig, Michael Northup, Michelle Watkins, Jason White, Michael Wilson, Rahn Wood, Roger Woods

## **Accreditation**

All degree programs in the Department of Accounting, Economics and Finance are ACBSP accredited (except the non-business major in economics).

## **Statement of Mission**

The mission of the Department of Accounting, Economics and Finance is to provide students with the knowledge and skills necessary to successfully compete in tomorrow's business environment in the areas of public accounting, managerial accounting, financial services, financial computing and corporate finance, economics and graduate studies. Lifelong learning is stressed and encouraged.

This mission is to be accomplished through the expertise of a knowledgeable faculty, by technological integration, by the stimulation of professional growth in students, by applied faculty and student research projects that serve the region, and by preparing students for professional licensures in the professions of accounting, finance and law.

The mission is also aligned with the University, college and departmental Educational Key Quality Indicators as we are committed to the goal of continuous quality improvement.

## **Advanced Standing Requirement**

Students majoring in Public Accounting, Private Accounting, Business Economics, Financial Services, Financial Computing, Corporate Finance or Financial Management must earn a "C" or better in all Common Professional Component courses (as previously listed on page 230 as well as all of the courses in their major).



# Accounting / 51

## MAJOR

### # Comprehensive Major in Accounting: B.S.—No Minor Required

Students choosing a Comprehensive Major in Accounting must take the common professional component courses previously outlined on page 230 plus receive 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. 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 take the MBA-accounting emphasis. (See Northwest Missouri State University *Graduate Catalog* and your advisor.)

The private industry track is designed to prepare students for careers in management accounting. With the addition of the course Mgmt 54-316 Organizational Behavior and Theory as an elective, the private industry track is designed to prepare students for taking the examination to become a Certified Management Accountant.

### Public Accounting Track

Acct 51-301 Cost Accounting	3
Acct 51-303 Tax Accounting I	3
Acct 51-304 Tax Accounting II	3
Acct 51-306 Intermediate Accounting I	3
Acct 51-307 Intermediate Accounting II	3
Acct 51-308 Accounting Information Systems	3
Acct 51-401 Intermediate Accounting III	3
Acct 51-403 Advanced Accounting	3
Acct 51-404 Auditing	3
Fin 53-312 Business Law II	3
<b>Total Public Accounting Track</b>	<b>30</b>

### Private Industry Track

Acct 51-301 Cost Accounting	3
Acct 51-303 Tax Accounting I	3
Acct 51-304 Tax Accounting II	3
Acct 51-306 Intermediate Accounting I	3
Acct 51-307 Intermediate Accounting II	3
Acct 51-308 Accounting Information Systems	3
Acct 51-402 Advanced Cost Accounting	3
Acct 51-403 Advanced Accounting	3
Acct 51-404 Auditing	3
Mgmt 54-316 Organizational Behavior and Theory	3
<b>Total Private Industry Track</b>	<b>30</b>

# 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) it provides students within the Melvin D. and Valorie G. Booth College of Business and Professional Studies with economic knowledge and skills needed for pursuit of successful careers in private business or public service and (b) through general education courses, it offers all students at the University an opportunity for economic education so that they become well-informed consumers and citizens who understand economic issues and policies.

## MAJORS

### # Comprehensive Major in Business Economics: B.S.—No Minor Required

Students choosing a Comprehensive Major in Business Economics must take the common professional component courses previously outlined on page 230 plus fulfill the following major requirements:

Required Courses	Semester Hours
Econ 52-351 Macroeconomic Theory	3
Econ 52-352 Money, Credit, and Banking	3
Econ 52-353 Microeconomic Theory	3
Econ 52-450 International Economics	3
Econ 52-458 Forecasting Business Conditions	3
<b>Electives</b>	
Choose six hours from advisor-approved economics or business electives	6
<b>Total Major Requirements</b>	<b>21</b>

### Major in Economics: B.S.—Minor Required

Students choosing a Major in Economics must take the following courses:

Directed General Education Course	Semester Hours
**Math 17-114 General Statistics I	3
<b>Required Courses</b>	
Math 17-118 College Algebra	3
*Econ 52-150 General Economics I (Macroeconomics)	3
Econ 52-151 General Economics II (Microeconomics)	3
Econ 52-351 Macroeconomic Theory	3
Econ 52-352 Money, Credit and Banking	3
Econ 52-353 Microeconomic Theory	3
Econ 52-450 International Economics	3
<b>Electives (12 hours minimum) from the Directed Concentration areas below</b>	<b>12</b>
Directed Concentration: Upper Division courses	
Economics courses (minimum of six hours)	

Advisor-approved electives from following areas:

Mathematics (Calculus or more advanced courses)

Finance

Marketing

Management

Political Science

**Total Major Requirements**

**33**

**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.

**\*\*This course fulfills a General Education requirement and is not counted toward the major requirements.**

**\*Cannot be used to fulfill any General Education requirement.**

## MINORS

### Minor in Economics

Students choosing a Minor in Economics must take the following courses:

#### Required Courses

	Semester Hours
*Econ 52-150 General Economics I (Macroeconomics)	3
Econ 52-151 General Economics II (Microeconomics)	3
Choose 12 hours of upper division economic electives:	12
<b>Total Minor Requirements</b>	<b>18</b>

**\*Cannot be used to fulfill any General Education requirement.**

# Finance / 53

## MAJOR

### # Comprehensive Major in Finance: B.S.—No Minor Required

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. Financial services is concerned with the design and delivery of advice and financial products. Corporate finance is concerned with the duties of the financial managers within the business firm. Insurance and risk management deal with the various ways to handle risk and how to protect assets through appropriate insurance coverage. The goal of the finance faculty is to prepare our 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.

# ACBSP accredited program

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 the useful 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 and the decision-making process utilizing 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 courses previously outlined on page 230 plus fulfill the following major requirements:

### **Option One: Financial Services, 24 hours**

Required Courses	Semester Hours
Acct 51-303 Tax Accounting I	3
Econ 52-352 Money, Credit, and Banking	3
Fin 53-320 Insurance and Risk	3
Fin 53-325 Investment Principles	3
Fin 53-327 Intermediate Financial Management	3
Fin 53-420 Financial Institutions	3
Fin 53-421 Selected Cases in Finance	3
<b>Choose 3 hours from electives</b>	<b>3</b>
Acct 51-304 Tax Accounting II (3)	
Acct 51-408 Managerial Accounting (3)	
Fin 53-326 Investment Management (3)	
Fin 53-422 Real Estate Management (3)	
<b>Total Major Requirements</b>	<b>24</b>

### **Option Two: Financial Computing, 24 hours**

Required Courses	Semester Hours
Fin 53-325 Investment Principles	3
Fin 53-327 Intermediate Financial Management	3
Fin 53-420 Financial Institutions	3
Fin 53-421 Selected Cases in Finance	3
CSIS 44-140 Introduction to Programming Using Visual Basic	3
CSIS 44-211 Spreadsheet Applications	1
CSIS 44-212 Advanced Spreadsheet and Charting	1
CSIS 44-346 Database Applications	1
CSIS 44-333 Multimedia and Web Development	3
Approved electives in Finance or Computer Science	3
<b>Total Major Requirements</b>	<b>24</b>

**Option Three: Corporate Finance, 24 hours**

Required Courses	Semester Hours
Fin 53-325 Investment Principles	3
Fin 53-327 Intermediate Financial Management	3
Fin 53-420 Financial Institutions	3
Fin 53-421 Selected Cases in Finance	3
Acct 51-301 Cost Accounting	3
Acct 51-306 Intermediate Accounting I	3
Acct 51-402 Advanced Cost Accounting	3
Approved electives in Finance or Accounting	3
<b>Total Major Requirements</b>	<b>24</b>

**Option Four: Financial Management, 24 hours**

Required Courses	Semester Hours
Fin 53-325 Investment Principles	3
Fin 53-327 Intermediate Financial Management	3
Fin 53-420 Financial Institutions	3
Fin 53-421 Selected Cases in Finance	3
Mgmt 54-314 Human Resource Management	3
Mgmt 54-316 Organizational Behavior and Theory	3
Mgmt 54-318 Entrepreneurship OR	
Mgmt 54-320 Negotiations	3
Approved electives in Finance or Management	3
<b>Total Major Requirements</b>	<b>24</b>

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## Course Descriptions

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**Accounting / 51****201 Accounting I (3 hours)**

A beginning course in the principles and theory of accounting. (F, S, SS)

**202 Accounting II (3 hours)**

A continuation of Acct 201, with the partnership and corporation as forms of business organizations emphasized. Prerequisite: Acct 51-201 with a minimum grade of "C". (F, S, SS)

**301 Cost Accounting (3 hours)**

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: 51-202 with a minimum grade of "C". (F, S)

**303 Tax Accounting I (3 hours)**

A study of Federal income tax compliance and tax planning for individuals and small businesses. Prerequisite: Acct 51-202 with a minimum grade of "C". (F, S, SS)

**304 Tax Accounting II (3 hours)**

A study of Federal income tax compliance and planning for partnerships, corporations, S corporations, estates and trusts. Prerequisites: Acct 51-202 and 303 with a minimum grade of "C" in both. (S)

**306 Intermediate Accounting I (3 hours)**

An in-depth study of accounting procedures followed in the recording and controlling of assets and liabilities. Prerequisite: Acct 51-202 with a minimum grade of "C". (F, S)

**307 Intermediate Accounting II (3 hours)**

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 51-306 with a minimum grade of "C". (F, S)

**308 Accounting Information Systems (3 hours)**

This is a course designed to give students a basic understanding of accounting systems, systems design and the organization of accounting data. Prerequisites: Acct 51-306 with a minimum grade of "C" and CSIS 44-130. (S)

**401 Intermediate Accounting III (3 hours)**

Covers governmental and not-for-profit accounting, partnerships, earnings per share, accounting changes and error correction, and other miscellaneous accounting topics. Prerequisite: Acct 51-306 with a minimum grade of "C". (S)

**402 Advanced Cost Accounting (3 hours)**

A course in management accounting designed for accounting majors. Emphasis is placed on collection and presentation of accounting information in a manner useful for decision-making, as well as how the electronic spreadsheet helps facilitate this process. Also includes a study of ethical considerations as they relate to managerial accounting. Prerequisite: Acct 51-301 with a minimum grade of "C". (S)

**403 Advanced Accounting (3 hours)**

Provides a study of consolidated financial statements, and international accounting. Prerequisite: Acct 51-307 with a minimum grade of "C". (F)

**404 Auditing (3 hours)**

A study of generally accepted auditing standards and procedures. Prerequisite: Acct 51-307 with a minimum grade of "C". (F)

**405 Intern in Accounting (1-3 hours)**

Students with junior or senior standing who are accounting majors, with the permission of the department chairperson, may enroll in an intern program with an approved business firm. (F, S, SS)

**408 Managerial Accounting (3 hours)**

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 51-202, Mgmt 54-313, Fin 53-324 and Mkt 55-330. (F, S, SS)

**409 Independent Study in Accounting (1-3 hours)**

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. (F, S, SS)

**Economics / 52****130 Survey of Economics (3 hours)**

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)

**150 General Economics I (3 hours)**

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)

**151 General Economics II (3 hours)**

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)

**351 Macroeconomic Theory (3 hours)**

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. Special emphasis is placed on the microeconomic foundations of macroeconomic theory. Prerequisites: Econ 52-150 and 151. Econ 52-353 recommended. (S)

**352 Money, Credit and Banking (3 hours)**

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 52-150 (F, S)

**353 Microeconomic Theory (3 hours)**

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 52-150 and 151 (F)

**354 Labor Economics (3 hours)**

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 52-150 and 151. (F)

**425 Internship in Economics (1-3 hours)**

Students who are economics majors may enroll, with the permission of the chairperson, in an intern program with an approved business or government firm. It is recommended the student be in the junior or senior year. (F, S, SS)

**450 International Economics (3 hours)**

A study of modern theories in international trade and finance and current trends and issues in international economic relations. Prerequisites: Econ 52-150 and 151. (F)

**451 Econometrics (3 hours)**

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 52-150 and 151, Math 17-114. (S, odd years)

**458 Forecasting Business Conditions (3 hours)**

A study of applied economics encompassing measurement, analysis and prediction of business conditions at the national, regional and industrial levels. Prerequisites: Econ 52-150, 151 and Math 17-114 and 118. (S, even years)

**459 Independent Study in Economics (1-3 hours)**

Offered only by special arrangement and with consent of the instructor. (F, S, SS)

**Finance / 53****120 Personal Money Management (3 hours)**

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)

**311 Business Law I (3 hours)**

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)

**312 Business Law II (3 hours)**

Fundamental principles of law in relation to business, including agency, negotiable instruments, secured transactions, bankruptcy, partnerships, corporations and other business entities. (F)

**320 Insurance and Risk (3 hours)**

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)

**324 Fundamentals of Business Finance (3 hours)**

A study of the financial structure of corporations, principles and techniques used in financial analysis and decision-making. Prerequisites: Acct 51-202 and Math 17-118 or consent of instructor. (F, S, SS)

**325 Investment Principles (3 hours)**

A study of the principles of investment and investment vehicles. Prerequisite: Fin 53-324. (F)

**326 Investment Management (3 hours)**

A course dealing with portfolio management and valuation theory. Prerequisite: Fin 53-324. (S, odd years)

**327 Intermediate Financial Management (3 hours)**

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 53-324. (S)

**420 Financial Institutions (3 hours)**

A course which deals with structure, functions, policies and decision-making within financial institutions. Prerequisites: Fin 53-324. (S)

**421 Selected Cases in Finance  
(3 hours)**

An advanced case study course dealing with the management of corporate finance. Prerequisites: Fin 53-327. (F)

**422 Real Estate Management (3 hours)**

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)

**425 Intern in Finance (1-3 hours)**

Students who are finance majors may enroll, with the permission of the chairperson, in an intern program with an approved business firm. This is recommended after completion of the junior year. (F, S, SS)

**429 Independent Study in Finance and Insurance (1-3 hours)**

Finance majors may, with approval, enroll in an independent study section. The approval must be received from the Department of Accounting, Economics and Finance chairperson and should be received during the term preceding the enrollment. (F, S, SS)



# Department of Agriculture / 03

**Chairperson:** Arley Larson

**Faculty:** Rod Barr, Harold Brown, Rego Jones, Dennis Padgitt, Jamie Patton, Terri Vogel, Thomas Zweifel

## Statement of Mission

The Department of Agriculture at Northwest Missouri State University supports and enhances the mission of the University. Northwest is a coeducational, primarily residential, regional University offering a broad range of undergraduate and select graduate programs. The University's programs place special emphasis upon agriculture, business, and teacher education, as these professions contribute to the primary service region. In support of this mission, the Department of Agriculture currently offers eight majors, five minors, three master's degrees and a two-year farm operations certificate to complement the high quality, living-learning environment of Northwest for students interested in pursuing careers in agriculture.

## DEGREE PROGRAMS

The courses in the Department of Agriculture 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 Economics, 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, Commercial Agriculture, Agronomy and Horticulture. Master's programs are offered leading to the following degrees: Master of Science in Agriculture, 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 Department of Agriculture have earned a Ph.D. or have significant professional experience, and strive for excellence in teaching, scholarly activity, service and student support. The Agriculture department is a leader in applied research programs in alternative crops, marketing research and associated activities.

The Department of Agriculture 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 department'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 department offers an excellent course curriculum for each major, undergraduate research opportunities, internship programs, a wide range of professional and social student organiza-

tions and hands-on experiences in living laboratories to expand students' horizons beyond the classroom.

### **Agriculture Major Requirements**

When a student chooses agriculture as a major, he/she will also choose an area of specialization from those offered. An advisor will then be assigned and the student and advisor will select the courses needed to complete the major requirements. Courses are required for each major, but students may, with permission of the advisor and department chairperson, make substitutions or additions to their program. General requirements for the B.S. degree are found in the "Degree Requirements" section of this catalog. **All agriculture students are encouraged to take chemistry as part of their general requirements.**

### **Advanced Standing Requirement**

All agriculture majors and students minoring in commercial agriculture must achieve a grade of "C" or better in Ag 03-102 Introductory Agricultural Economics prior to enrolling in subsequent agricultural economics courses.

## **DEPARTMENT 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.

The final report must be filed in the Department of Agriculture and the student is responsible for providing that copy.

### **Credit By Examination**

The agriculture courses listed in the course descriptions preceded by an asterisk (\*) are available to students for credit by examination. If a student feels he/she can test out of any of these courses, the student should talk to the instructor and the department chairperson.

### **Majors and Minors for Agriculture Students**

Students majoring in agriculture are not permitted to minor in agricultural science. 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 not pursue a minor offered by the department. 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 with a lower division equivalent at Northwest will be transferred toward a B.S. degree, with the exception of internships and those courses that are covered by a current articulation agreement and/or clearly marked by the junior/community college as transfer courses. Up to six credits of

employment experience, on-the-job training, or internships can be substituted for Northwest's Ag 03-498 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, all credits will transfer, either as substitutes for equivalent courses at the freshman and sophomore level or as electives. Bachelor of Technology students must complete a residence major of 24 hours or two residence minors of 15 hours. (See Bachelor of Technology degree requirements on page 79.)

Students selecting a major in agriculture from Northwest Missouri State University must complete a minimum of 24 credit hours in agriculture from Northwest's Department of Agriculture. Exceptions to this policy must be submitted in writing to the department chairperson for review by the Department Curriculum Committee.

## MAJORS

### Major in Agricultural Economics, 37 hours: B.S.—Collateral Field Required

This area prepares the student for graduate study, government service and private industry.

Required Courses	Semester Hours
*Ag 03-102 Introductory Agricultural Economics	3
Ag 03-150 Animal Science	4
Ag 03-302 Agricultural Marketing	3
Ag 03-304 Farm Management and Record Analysis	3
Ag 03-308 Agricultural Applications of Computers OR Ag 03-598 Advanced Agricultural Applications of Computers and GPS	3
Ag 03-334 Soils	4
Ag 03-496 Seminar	1
Ag 03-502 Agricultural Prices	3
Ag 03-505 Agricultural Resource Economics	3
Advisor-approved electives in agriculture	10
<b>Total</b>	<b>37</b>
<b>Collateral Field Courses</b>	
Eng 10-315 Technical Writing	3
*Math 17-114 General Statistics I	3
Math 17-228 Applied Calculus OR Math 17-120 Calculus I	4
Econ 52-351 Macroeconomic Theory	3
Econ 52-352 Money, Credit and Banking	3
Econ 52-353 Microeconomic Theory	3
<b>Total</b>	<b>19</b>

\*Cannot be used to fulfill any General Education requirement.

### Major in Agricultural Business, 37 hours: B.S.—Collateral Field Required

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 buying, selling and management positions.

Required Courses	Semester Hours
*Ag 03-102 Introductory Agricultural Economics	3
Ag 03-150 Animal Science	4
Ag 03-302 Agricultural Marketing OR Mkt 55-330 Principles of Marketing	3
Ag 03-304 Farm Management and Record Analysis	3
Ag 03-309 Basic Applied Futures Marketing	3
Ag 03-334 Soils	4
Ag 03-407 Agricultural Finance OR Fin 53-324 Fundamentals of Business Finance	3
Ag 03-496 Seminar	1
Ag 03-503 Agricultural Law	3
Advisor-approved electives in agriculture or business	10
<b>Total</b>	<b>37</b>
<b>Collateral Field Courses</b>	
*Math 17-114 General Statistics I	3
Acct 51-201 Accounting I	3
Acct 51-202 Accounting II	3
Fin 53-311 Business Law I	3
Mgmt 54-310 Managerial Communication	3
Mgmt 54-313 Principles of Management	3
Mkt 55-430 Sales and Sales Management	3
<b>Total</b>	<b>21</b>

\*Cannot be used to fulfill any General Education requirement.

### **Major in Agronomy, 36 hours: B.S.—Minor Required OR Collateral Field Listed Below**

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 or related areas.

Required Courses	Semester Hours
Ag 03-232 Crop Production	3
Ag 03-330 Forage Crops	3
Ag 03-334 Soils	4
Ag 03-336 Crop Physiology	3
Ag 03-381 Applied Entomology	3
Ag 03-440 Introduction to Precision Agriculture	3
Ag 03-496 Seminar	1
Ag 03-530 Soil Formation and Classification	3
Ag 03-532 Soil and Water Conservation	3
Ag 03-534 Plant Breeding	3
Ag 03-434 Weed Science: Ecology and Control OR Ag 03-582 Plant Diseases	3
Ag 03-536 Soil Fertility	3
Advisor-approved electives in agriculture	1
<b>Total</b>	<b>36</b>

**Collateral Field Courses (if no minor is selected)**

*Bio 04-112/113 General Botany and Laboratory OR	
Bio 04-140 General Microbiology	4
Bio 04-350 Genetics OR	
Bio 04-376 Basic Ecology	3-4
*Math 17-114 General Statistics I	3
Geol 27-360 Environmental Geology OR	
Geog 32-365 Geographic Information Systems	3-4
Chem 24-242/243 Organic Chemistry and Laboratory OR	
Chem 24-342/343 Organic Chemistry I and Laboratory	4-5
Eng 10-315 Technical Writing	3
<b>Total</b>	<b>20-23</b>
<b>Directed General Education Requirements</b>	
Ag 03-130 Plant Science	4
Chem 24-112/113 General Chemistry and Laboratory OR	
Chem 24-114/115 General Chemistry I and Laboratory	4

\*Cannot be used to fulfill any General Education requirement.

**Major in Animal Science, 38 hours: B.S.—Minor Required OR  
Collateral Field Listed Below**

Courses have been selected to prepare the student in the areas dealing with the fundamentals of livestock production, including selection, breeding, feeding, 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.

<b>Required Courses</b>	<b>Semester Hours</b>
Ag 03-150 Animal Science	4
Ag 03-252 Livestock Evaluation	3
Ag 03-309 Applied Futures Marketing	3
Ag 03-352 Meats	3
Ag 03-360 Principles of Animal Nutrition	3
Ag 03-364 Anatomy of Domestic Animals	3
Ag 03-366 Principles of Animal Breeding	3
Ag 03-452 Beef Production	3
Ag 03-454 Pork Production	3
Ag 03-460 Applied Animal Nutrition	3
Ag 03-464 Physiology of Domestic Animals	3
Ag 03-496 Seminar	1
Ag 03-566 Genetics of Livestock Improvement	3
<b>Total</b>	<b>38</b>
<b>Collateral Field Courses (Choose 20 hours)</b>	
Chem 24-242/243 Organic Chemistry and Laboratory	4
Chem 24-362/363 Elementary Biochemistry and Laboratory	4
Acct 51-201 Accounting I	3
Mgmt 54-310 Managerial Communication	3
Mgmt 54-313 Principles of Management	3
*Bio 04-114/115 General Zoology and Laboratory	4

Bio 04-350 Genetics	3
*Math 17-114 General Statistics I	3
<b>Directed General Education Requirement</b>	
Chem 24-112/113 General Chemistry and Laboratory OR	
Chem 24-114/115 General Chemistry I and Laboratory	4
*Cannot be used to fulfill any General Education requirement.	

### **Comprehensive Major in Animal Science (Pre-Veterinary Option), 65 hours: B.S.—No Minor Required**

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.

Required Courses	Semester Hours
Ag 03-150 Animal Science	4
Ag 03-252 Livestock Evaluation	3
Ag 03-352 Meats	3
Ag 03-360 Principles of Animal Nutrition	3
Ag 03-366 Principles of Animal Breeding	3
Ag 03-404 Livestock Marketing	2
Ag 03-452 Beef Production	3
Ag 03-454 Pork Production	3
Ag 03-460 Applied Animal Nutrition	3
Ag 03-496 Seminar	1
Ag 03-566 Genetics of Livestock Improvement	3
Bio 04-322 Comparative Anatomy	4
Bio 04-438 Human Physiology	4
Chem 24-116/117 General Chemistry II and Laboratory	5
Chem 24-342/343 Organic Chemistry I and Laboratory	5
Chem 24-362/363 Elementary Biochemistry and Laboratory	4
*Phys 25-110/111 General Physics I and Laboratory	4
*Phys 25-112/113 General Physics II and Laboratory	4
Bio 04-418 Vertebrate Histology	4
<b>Directed General Education Requirement</b>	
Chem 24-114/115 General Chemistry I and Laboratory	4
*Cannot be used to fulfill any General Education requirement.	

### **Major in Horticulture, 37 hours: B.S.—Minor Required OR Collateral Field Listed Below**

A major in horticulture provides opportunity for study of vegetable and fruit production, turfgrass management, greenhouse and nursery management, and landscape design.

Required Courses	Semester Hours
*Ag 03-130 Plant Science	4
Ag 03-334 Soils	4
Ag 03-380 Plant Propagation	3
Ag 03-381 Applied Entomology	3
Ag 03-582 Plant Diseases	3
Ag 03-496 Seminar	1
<b>Total</b>	<b>18</b>
<b>Horticulture courses chosen by student and advisor</b>	<b>19</b>

**Collateral Field Courses (if minor is not chosen)****Choose 24 hours from the following:**

*Geol 27-110/111 General Geology and Laboratory	4
Geol 27-360 Environmental Geology	4
Chem 24-242/243 Organic Chemistry and Laboratory	4
Chem 24-342/343 Organic Chemistry I and Laboratory	5
Chem 24-362/363 Elementary Biochemistry and Laboratory	4
Bio 04-112/113 General Botany and Laboratory	4
Bio 04-140 General Microbiology	4
Bio 04-261 Local Flora	2
Bio 04-350 Genetics	3
Bio 04-376 Basic Ecology	4
Bio 04-412 Plant Anatomy/Morphology	4
Bio 04-430 Plant Physiology	4
Bio 04-575 Methods in Plant Ecology	2
*Math 17-114 General Statistics I	3

See advisor for placement in General Education Science requirements

\*Cannot be used to fulfill any General Education requirement.

**Comprehensive Major in Agricultural Education, 59 hours:  
B.S.Ed., Secondary Program—No Minor Required  
(Certifies Grades 9-12)**

The Major in Agricultural Education is designed to prepare teachers of agriculture for the secondary and adult levels in compliance with state certification requirements.

Required Courses	Semester Hours
Ag 03-150 Animal Science	4
Ag 03-334 Soils	4
**Ag 03-130 Plant Science	4
**Ag 03-102 Introductory Agricultural Economics	3
Ag 03-496 Seminar	1
Ag 03-112 Agricultural Mechanics	4
Ag 03-304 Farm Management and Record Analysis	3
Ag 03-232 Crop Production	3
Horticulture elective	3
Advisor-approved electives in agriculture	16
<b>Total</b>	<b>45</b>
<b>Required Courses in Agricultural Education</b>	
Ag 03-320 Foundations of Agricultural Education	3
Ag 03-420 Program Planning in Agricultural Education	3
Ag 03-421 Conducting Supervised Agricultural Experience Programs	2
Ag 03-422 Adult Education in Agriculture	2
Ag 03-524 Teaching Agricultural Laboratories	2
Ag 03-580 Methods in Teaching Agriculture	2
<b>Total</b>	<b>14</b>
<b>Directed General Education Requirement</b>	
Chem 24-112/113 General Chemistry and Laboratory OR Chem 24-114/115 General Chemistry I and Laboratory	4

\*\*Can be used to fulfill General Education requirement.

### **Endorsement for Middle School Certification: Agriculture Certifies Grades 5-9 when completed with the Middle School Major**

This endorsement will meet the requirements for middle school major under Option II, Department of Curriculum and Instruction.

Required Courses	Semester Hours
Ag 03-102 Introductory Agricultural Economics	3
Ag 03-112 Agricultural Mechanics	4
Ag 03-130 Plant Science	4
Ag 03-150 Animal Science	4
Ag 03-334 Soils	4
Ag 03-320 Foundations of Agricultural Education	3
<b>Total</b>	<b>22</b>

### **Comprehensive Major in Agricultural Science, 55 hours: B.S.—No Minor Required**

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.

Required Courses	Semester Hours
*Ag 03-102 Introductory Agricultural Economics	3
*Ag 03-130 Plant Science	4
Ag 03-150 Animal Science	4
Ag 03-334 Soils	4
Ag 03-496 Seminar	1
**Advisor-approved electives in agriculture	39
<b>Total</b>	<b>55</b>

\*\*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.

#### **Directed General Education Requirement**

Chem 24-112/113 General Chemistry and Laboratory OR	
Chem 24-114/115 General Chemistry I and Laboratory	4

\*Cannot be used to fulfill any General Education requirement.

## **MINORS**

### **Minor in Agricultural Science, 24 hours**

Required Courses	Semester Hours
*Ag 03-102 Introductory Agricultural Economics	3
*Ag 03-130 Plant Science	4
Ag 03-150 Animal Science	4
Ag 03-334 Soils	4
Advisor-approved electives in agriculture	9

\*Cannot be used to fulfill any General Education requirement.



**Minor in Commercial Agriculture, 24 hours: B.S.**

Required Courses	Semester Hours
*Ag 03-102 Introductory Agricultural Economics OR Econ 52-151 General Economics II	3
Acct 51-201 Accounting I	3
Ag 03-302 Agricultural Marketing	3
Ag 03-309 Applied Futures Marketing	3
Ag 03-502 Agricultural Prices	3
Advisor-approved electives	9
<b>Suggested Elective Courses for Commercial Agriculture Minor:</b>	
Fin 53-324 Fundamentals of Business Finance	3
Acct 51-202 Accounting II	3
Mgmt 54-313 Management Process and Behavior	3
Ag 03-304 Farm Management and Record Analysis	3
Ag 03-305 Rural Real Estate Appraisal	3
Ag 03-407 Agricultural Finance	3
Ag 03-503 Agricultural Law	3
Ag 03-508 Agricultural Policy	3

\*Cannot be used to fulfill any General Education requirement.

**Minor in Agronomy, 24 hours**

Required Courses	Semester Hours
*Ag 03-130 Plant Science	4
Ag 03-232 Crop Production	3
Ag 03-334 Soils	4
Ag 03-330 Forage Crops OR Ag 03-392 Farm Chemicals and Their Use OR Ag 03-532 Soil and Water Conservation	3
Ag 03-336 Crop Physiology OR Ag 03-534 Plant Breeding	3
Ag 03-530 Soil Formation and Classification OR Ag 03-536 Soil Fertility	3
Ag 03-381 Applied Entomology OR Ag 03-434 Weed Science: Ecology and Control OR Ag 03-582 Plant Diseases	3
Advisor-approved electives in agronomy	1

\*Cannot be used to fulfill any General Education requirement.

**Minor in Animal Science, 22 hours**

Required Courses	Semester Hours
Ag 03-150 Animal Science	4
Ag 03-252 Livestock Evaluation	3
Ag 03-352 Meats	3
Ag 03-360 Principles of Nutrition OR Ag 03-460 Applied Animal Nutrition	3
Ag 03-366 Principles of Animal Breeding	3
Ag 03-452 Beef Production OR Ag 03-454 Pork Production	3
Ag 03-566 Genetics of Livestock Improvement	3

**Minor in Horticulture, 24 hours**

Required Courses	Semester Hours
*Ag 03-130 Plant Science	4
Ag 03-334 Soils	4
Ag 03-380 Plant Propagation	3
Ag 03-381 Applied Entomology	3
Ag 03-582 Plant Diseases	3
Advisor-approved electives in horticulture	7

\*Cannot be used to fulfill any General Education requirement.

**TWO-YEAR CERTIFICATE PROGRAM****Farm Operation, 60 hours**

A two-year program designed to allow the student a highly concentrated course of study to prepare for farming or ranching.

Required Courses	Semester Hours
Ag 03-102 Introductory Agricultural Economics	3
Ag 03-130 Plant Science	4
Ag 03-150 Animal Science	4
Ag 03-334 Soils	4
Advisor-approved electives in agriculture	30
Advisor-approved electives	15

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## Course Descriptions

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**Agriculture / 03****AGRICULTURAL ECONOMICS****\*102 Introductory Agricultural Economics (3 hours)**

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, SS)

**302 Agricultural Marketing (3 hours)**

A course surveying the nature of production, the marketing system, and the market for farm products, market functions and institutions' commodity problems. Prerequisite: Ag 03-102. (F)

**304 Farm Management and Record Analysis (3 hours)**

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: Ag 03-102 (F, S)

**305 Rural Real Estate Appraisal (3 hours)**

The classification and valuation of real estate using the sales, income, cost and productivity methods. Several field appraisals will be completed by the students. (S, even years)

**308 Agricultural Applications of Computers (3 hours)**

A study of the application of computers to agricultural problems and the utilization of the EDP Systems as a farm management tool. (S)

**309 Applied Futures Marketing (3 hours)**

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)

**404 Livestock Marketing (2 hours)**

Economic analysis of marketing livestock products from the standpoint of producers, processors, distributors; also evaluation and pricing of meat animals. (S)

**407 Agricultural Finance (3 hours)**

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: Ag 03-304. (F, SS)

**408 Professional Farm Management (3 hours)**

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: Ag 03-304. (F, odd years)

**409 Independent Study in Agricultural Economics (1-3 hours)**

For students who wish to intensify, enrich or specialize in the area of agricultural economics. Consent of instructor necessary. See course requirements. (F, S, SS)

**502 Agricultural Prices (3 hours)**

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. Prerequisites: Ag 03-102 and 302. (S)

**503 Agricultural Law (3 hours)**

The farmer's legal setting, deeds, mortgages, leases, water and fencing rights, easements, estate planning and other aspects. (F)

**504 Futures Marketing (3 hours)**

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: Ag 03-309. (S, even years, SS)

**505 Agricultural Resource Economics (3 hours)**

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: Ag 03-102. (F, odd years)

**508 Agricultural Policy (3 hours)**

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: Ag 03-102. (S, odd years)

**509 Problems in Agricultural Economics (1-3 hours)**

Studies in the area of agricultural economics. Consent of instructor necessary. See course requirements. (F, S, SS)

**598 Advanced Agricultural Applications of Computers and GPS (3 hours)**

A study of the use of statistical analysis and mathematical models in the agricultural business decision-making process. Prerequisites: Math 17-114 or 610 and CSIS 44-130 or Ag 03-308. (S, odd years)

**AGRICULTURAL MECHANIZATION****112 Agricultural Mechanics (4 hours)**

Topics include hot and cold metal work, arc and oxyacetylene welding, tool care and use, woodworking, concrete, engines and machinery management. (S)

**\*312 Agricultural Welding (2 hours)**

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)

**419 Independent Study in Agricultural Mechanization (1-3 hours)**

For students who wish to intensify, enrich or specialize in the study of agricultural mechanization. Consent of instructor necessary. See course requirements. (F, S, SS)

**\*510 Soil and Water Management (3 hours)**

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)

### **518 Agricultural Drainage and Irrigation (3 hours)**

A study of the needs of drainage and irrigation in agriculture including the design and application of drainage and irrigation systems under various conditions. (F, even years)

### **519 Problems in Agricultural Mechanization (1-3 hours)**

Studies in the area of specialization of agricultural mechanization arranged with a member of the faculty. Consent of instructor necessary. See course requirements. (F, S, SS)

## **AGRICULTURAL EDUCATION**

### **\*320 Foundations of Agricultural Education (3 hours)**

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)

### **420 Program Planning in Agricultural Education (3 hours)**

Curriculum construction in agricultural education, preparation of audio-visual aids, summer programs and the development of departmental and FFA programs of activities. (F)

### **421 Conducting Supervised Agriculture Experience Programs (2 hours)**

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. (F)

### **422 Adult Education in Agriculture (2 hours)**

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. (S)

### **429 Independent Study in Agricultural Education (1-3 hours)**

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. See course requirements. (F, S, SS)

### **524 Teaching Agricultural Laboratories (2 hours)**

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 agricultural laboratories. (F)

### **525 Induction Year Beginning Teacher I (2 hours)**

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. (SS)

### **527 Induction Year Beginning Teacher II (2 hours)**

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)

### **529 Problems in Agricultural Education (1-3 hours)**

Studies in the areas of agricultural education with members of the staff. Consent of instructor necessary. See course requirements. (F, S, SS)

### **580 Methods in Teaching Agriculture (2 hours)**

A course in the special methods and materials of teaching agriculture, with an emphasis on teaching problem solving and agriculture management. (S)

## **AGRONOMY**

### **130 Plant Science (4 hours)**

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)

### **232 Crop Production (3 hours)**

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: Ag 03-130, Bio 04-112/113 or consent of instructor. (F)

**238 Field Scouting Workshop (1-2 hours)**

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. The course will be offered on a team-taught, modular basis. (S)

**330 Forage Crops (3 hours)**

A detailed study of the culture, storage and utilization of the principal forage crops. Prerequisite: Ag 03-130 recommended. (S)

**\*334 Soils (4 hours)**

The soil forming process, the classification of soils, physical and chemical properties of soils, soil management and maintenance of fertility. Prerequisites: Chem 24-112/113 or permission of instructor. (F, S)

**336 Crop Physiology (3 hours)**

A study of the physiological, nutritional and ecological aspects of crop growth and management. Prerequisite: Ag 03-130 or Bio 04-112/113. Chem 24-112/113 or 114/115 recommended. (F)

**392 Farm Chemicals and Their Use (3 hours)**

A study of pesticide use and principles of their regulation, application, efficacy and environmental fate. Prerequisite: Chem 24-112/113 or Chem 24-114/115 or consent of instructor. (S)

**434 Weed Science: Ecology and Control (3 hours)**

Study and evaluation of weed competition concepts and the current and evolving methods of weed management. Prerequisite: Ag 03-130 or Bio 04-112/113. (F, even years)

**437 Soil Evaluation (1 hour)**

Field experience in soil evaluation. Student should be co-enrolled in Ag 03-530. (S)

**\*440 Introduction to Precision Agriculture (3 hours)**

The methods of analysis and interpretation of soil tests and plant tissue analysis. (F)

**442 Practical Field Crops Evaluation (1 hour)**

Experience and practice in identification, agronomic calculations, and applications of agronomic facts. Consent of instructor required. Prerequisite: Ag 03-232. (S)

**449 Independent Study in Agronomy (1-3 hours)**

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. See course requirements. (F, S, SS)

**\*530 Soil Formation and Classification (3 hours)**

The characteristics and identification of soils, the principles and practices of soil surveying, land judgment and land appraisal. Student should be co-enrolled in Ag 03-437. Prerequisite: Ag 03-334. (S)

**\*532 Soil and Water Conservation (3 hours)**

Principles of conservation of soil resources and the influence of physical characteristics on losses. Conservation practices as they apply to the farming unit. Prerequisite: Ag 03-334. (F)

**534 Plant Breeding (3 hours)**

A study of the improvement of agricultural plants by application of the principles of heredity. Prerequisite: Ag 03-130 or Bio 04-112/113. (S)

**\*536 Soil Fertility (3 hours)**

The production, properties and use of the various fertilizers and other soil amendments. (S)

**540 Grain Crops (3 hours)**

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)

**549 Problems in Agronomy (1-3 hours)**

Studies in the areas of agronomy arranged with members of the staff. Consent of instructor necessary. See course requirements. (F, S, SS)

**ANIMAL SCIENCE****\*150 Animal Science (4 hours)**

An introductory animal science course dealing with the meat animal and dairy industry. Includes basic principles of selection, feeding, breeding, housing, marketing, management and the relationship of these two livestock enterprises to the total agricultural industry. (F, S)

**170 Dairy Science (3 hours)**

Fundamentals of the dairy industry. Includes basic principles of nutrition, reproduction, milk production and management of dairy herds. (S)

**252 Livestock Evaluation (3 hours)**

Comparative judging and evaluation of farm animals for specific uses, estimating yield grade and carcass quality of market animals. Work will include beef cattle, sheep and swine. (F, S)

**352 Meats (3 hours)**

Identification and grading of retail and wholesale cuts of meat with emphasis on their economic and nutritional value. Also carcass evaluation, meat curing and processing. (S)

**358 Livestock Health and Disease Management (3 hours)**

A study of the management of farm animals on a small scale family farm. Includes prevention and diagnosis of disease parasites, nutrition, facility, reproductive and sanitation problems. Prerequisite: Ag 03-150. (F)

**360 Principles of Animal Nutrition (3 hours)**

A study of the principles of animal nutrition and practical problems of feeding livestock. (F)

**364 Anatomy of Domestic Animals (3 hours)**

A study of the major anatomical systems of the ruminant, monogastric and fowl. (F)

**365 Artificial Insemination (1-3 hours)**

A study of artificial insemination techniques of domestic animals as related to reproductive anatomy, physiology and breeding management. (SS)

**366 Principles of Animal Breeding (3 hours)**

A study of the reproductive anatomy, endocrinology, physiology and management of domestic animals. (S)

**450 Sheep Production (3 hours)**

Breeding, feeding and management of commercial and purebred sheep. (S)

**452 Beef Production (3 hours)**

Breeding, feeding and management of commercial and purebred beef cattle. Includes lab sessions. (F)

**454 Pork Production (3 hours)**

Breeding, feeding and management of commercial and purebred swine. (F)

**455 Swine Confinement Management (3 hours)**

Application of the principles of swine management to confinement swine production. (S)

**460 Applied Animal Nutrition (3 hours)**

Preparation, feeding standards and calculation of rations and nutritional management of herds and flocks. Prerequisite: Ag 03-360 or consent of instructor. (S)

**464 Physiology of Domestic Animals (3 hours)**

Physiology of the neuromuscular, circulatory, respiratory, digestive, endocrine, reproductive and excretory systems in domestic animals as related to their growth and production. (S)

**469 Independent Study in Animal Science (1-3 hours)**

For students who wish to intensify, enrich or specialize in the study of any area of animal science. Consent of instructor necessary. See course requirements. (F, S, SS)

**\*566 Genetics of Livestock Improvement (3 hours)**

Applications of genetics to the breeding and improvement of livestock. (F)

**569 Problems in Animal Science (1-3 hours)**

Advanced studies in an area of animal science arranged with a member of the faculty. Consent of instructor necessary. See course requirements. (F, S, SS)

**HORTICULTURE****380 Plant Propagation (3 hours)**

Principles and practices of sexual and asexual propagation of plants. (S)

**381 Applied Entomology (3 hours)**

A study of insects with special reference to taxonomy, life cycles, economic importance and management. (F)

**382 Woody Landscape Plants (3 hours)**

Description, use, adaptation, culture and classification of woody plants and cultivars. (F)

**383 Landscape Design (3 hours)**

Design and development of residential space. (S, odd years)

**385 Greenhouse Crop Production (3 hours)**

The identification, propagation and culture of flowering potted plants, annual plants and tropical ornamentals. (S, odd years)

**387 Greenhouse Management and Materials (3 hours)**

A survey of methods and materials related to management of the greenhouse environment, including heat, light, ventilation, soil, fertilizer, irrigation and crop scheduling. (F, even years)

**388 Fruit and Vegetable Production (3 hours)**

Fundamentals of fruit and vegetable crop production, with an emphasis on environmental factors influencing growth, development and quality. (S, even years)

**483 Landscape Construction (3 hours)**

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. (S, odd years)

**485 Herbaceous Perennials (3 hours)**

Course encompasses the identification, selection and culture of herbaceous perennials, biennials and ornamental grasses.

**489 Independent Study in Horticulture (1-3 hours)**

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. See course requirements. (F, S)

**582 Plant Diseases (3 hours)**

A study of diseases affecting ornamental and crop plants; their causes, nature, economic effects, epidemiology and control. (S)

**583 Turfgrass Management (3 hours)**

A study of the selection, establishment and maintenance of various turfgrasses with emphasis on nutrient and pest management. (S, even years)

**585 Principles of Postharvest Horticulture (3 hours)**

A study of the physical and physiological principles related to harvest, packaging, transportation, marketing, quality and safety of horticultural crops. (F, odd years)

**589 Problems in Horticulture (1-3 hours)**

Studies in the area of horticulture arranged with members of the staff. The course requires consent of the advisor and supervising staff member. See course requirements. (F, S, SS)

**AGRICULTURAL SCIENCE****496 Seminar (1 hour)**

A course designed for presenting papers and discussion of problems as well as research in agriculture. Prerequisite: Senior standing. (F, S)

**498 Agriculture Occupations Internship (3-6 hours)**

Supervised program of applied management practices, policies and procedures within areas of agricultural business occupations. Prerequisite: Consent of advisor necessary. (F, S, SS)

# Department of Computer Science/ Information Systems / 44

**Chairperson:** Phillip Heeler

**Faculty:** Joni Adkins, Judy Clark, Dale Ferguson, Carolyn Hardy, Gary McDonald, Merry McDonald, Dean Sanders, Carol Spradling, Gary Ury, Nancy Zeliff

## **Statement of Mission**

The mission of the Department of Computer Science/Information Systems is to develop and enhance an individual's professional competence in the areas of computers, information systems and related technologies. The goal of each major is to provide a sufficiently focused curriculum to enable students 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. Each major offers the student an opportunity to obtain a thorough knowledge of the field of study, develop the professional competencies to communicate that knowledge, and acquire a value system that will enable the student to make sound decisions regarding the many ethical issues that confront professionals in the workplace.

## **DEGREE PROGRAMS**

The Department of Computer Science/Information Systems offers programs leading to the Bachelor of Science degree in the areas of computer science, interactive digital media, management information systems and office information systems. For students interested in teaching business and economics in grades 9-12, the department offers the Bachelor of Science in Education degree with a Major in Business Education. In addition, there are minors in computer science, computer networking, database management systems, computer applications, systems management, geographic information systems, interactive digital media and business education and non-degree office systems and medical secretarial certificate programs.

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 focus on knowledge of business and applied computer technologies for responsible participation in the management information systems field.



Office information systems and business education students develop interpersonal, decision making and analytical skills in dealing with office and business problems and situations. Additionally, education majors learn to motivate students to develop these same 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.

### Advanced Standing Requirement

To ensure that students have the necessary tools to begin study in their major area, the Department of Computer Science/Information Systems requires that students must meet certain requirements before enrolling in advanced coursework. Students making application to major in Business Education, Computer Science, Interactive Digital Media (CP), Management Information Systems or Office Information Systems must achieve Advanced Standing. 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.

To achieve Advanced Standing in Computer Science, the student must:

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 17-120 Calculus I	4
Math 17-215 Discrete Structures	4
CSIS 44-130 Computers and Information Technology	3
CSIS 44-141 Computer Programming I	3
CSIS 44-241 Computer Programming II	3
CSIS 44-242 Data and File Structures	3

**Total** **20**

To achieve Advanced Standing in Management Information Systems, the student must:

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:

CSIS 44-130 Computers and Information Technology	3
Math 17-114 General Statistics I	3
Math 17-118 College Algebra	3
Acct 51-201 Accounting I	3
Econ 52-150 General Economics I	3
Econ 51-151 General Economics II	3

**Total** **18**

\*In exceptional cases, a student not meeting the "90-hour rule" may appeal to the department's Advanced Standing Committee.

To achieve Advanced Standing in Business Education or Office Information Systems, the student must:

1. Receive a “C” or better for each required course taken in the Department of Computer Science/Information Systems
2. Attain a score at level 1 or higher on all areas of the Academic Profile

Business Education majors and minors must also meet the requirements for Admittance to Teacher Education as specified on page 291 of this catalog.

Students who have met this Advanced Standing requirement are official members of the department and can pursue any major course, assuming the prerequisites have been met.

### Senior Assessment

For each of the majors in the Computer Science/Information Systems Department, a senior-level major field assessment must be completed by each student.

## MAJORS

All majors in the Computer Science/Information Systems department require CSIS 44-130 Computers and Information Technology as a prerequisite course per course descriptions.

### Comprehensive Major in Computer Science: B.S.—No Minor Required

Required Courses	Semester Hours
CSIS 44-141 Computer Programming I	3
CSIS 44-241 Computer Programming II	3
CSIS 44-242 Data and File Structures	3
CSIS 44-296 Professional Development Seminar	1
CSIS 44-325 Programming Languages	3
CSIS 44-345 Computer Organization I	3
CSIS 44-349 Survey of Algorithms	3
CSIS 44-445 Computer Organization II	3
CSIS 44-450 Operating Systems	3
CSIS 44-455 Computer Networks	3
CSIS 44-460 Database Systems	3
CSIS 44-525 Theory and Implementation of Programming Languages	3
CSIS 44-561 Software Engineering I	3
CSIS 44-562 Software Engineering II	3
Math 17-120 Calculus I	4
Math 17-121 Calculus II (4) OR	
Math 17-316 General Statistics II (3)	3-4
Math 17-215 Discrete Mathematics	4
Math 17-230 Probability and Statistics	3
*Phys 25-110/111 and 25-112/113 General Physics I, II, and Laboratory OR	
25-120/121 and 25-230/231 Fund. of Classical Physics I, II, and Lab OR	
Chem 24-114/115 and 24-116/117 General Chemistry I, II, and Lab	8-10
<b>Total Major Requirements</b>	<b>62-65</b>

\*Cannot be used to fulfill any General Education requirement.

NOTES: (1) 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. (2) Java as a Second Language (CSIS 44-239) plus two hours of advisor-approved electives in computer science can substitute for CSIS 44-141 and 44-241 in the computer science major.

## **Comprehensive Major in Interactive Digital Media: 61 hours, B.S.–No Minor Required**

### **Computer Science Programming Concentration**

This is an interdisciplinary major in conjunction with Art, Computer Science/Information Systems and Mass Communication. Three concentrations are available for this major: Computer Science Programming (Computer Science/Information Systems), New Media (Mass Communication), and Visual Imaging (Art).

This major requires CSIS 44-130 Computers and Information Technology as a prerequisite course as required by course descriptions.

<b>Required Core Courses</b>	<b>Semester Hours</b>
Art 13-191 Introduction to Design	3
Art 13-207 Digital Photography	3
Art 13-292 Introduction to Creative Electronic Imaging	3
Art 13-294 Letterforms and Graphic Design	3
MC 20-120 Introduction to Mass Media	3
MC 20-243 Media Design I	3
MC 20-303 Introduction to Web Publishing	3
MC 20-314 Communication Law	3
CSIS 44-143 Script Programming I	3
CSIS 44-333 Multimedia and Web Development	3
CSIS 44-335 Script Programming II	3
Mkt 55-330 Principles of Marketing	3
<b>Total Core Requirements</b>	<b>36</b>
<b>Required Courses for Concentration in Computer Science Programming:</b>	
CSIS 44-141 Computer Programming I	3
CSIS 44-241 Computer Programming II	3
CSIS 44-242 Data and File Structures	3
CSIS 44-345 Computer Organization I	3
CSIS 44-415 Interactive Digital Media Seminar	1
CSIS 44-455 Computer Networks	3
CSIS 44-460 Database Systems	3
CSIS 44-563 Web Services Technology	3
Choose one from the following electives:	3
CSIS 44-540 Visual Application Development (3)	
CSIS 44-555 Advanced Computer Networks (3)	
CSIS 44-560 Advanced Topics in Database Systems (3)	
CSIS 44-590 Special Topics (3)	
<b>Total Concentration Hours</b>	<b>25</b>
<b>Total Major Requirements</b>	<b>61</b>

**Concentration in New Media – see the Mass Communication Department**

**Concentration in Visual Imaging – see the Art Department**

## # Comprehensive Major in Management Information Systems: B.S.—No Minor Required

Students choosing a Comprehensive Major in Management Information Systems must take the common professional component courses previously outlined on page 230 plus fulfill the following major requirements:

Required Courses	Semester Hours
CSIS 44-141 Computer Programming I	3
CSIS 44-241 Computer Programming II	3
CSIS 44-250 COBOL Programming	3
CSIS 44-312 Information Technology Hardware and Software	3
CSIS 44-411 Systems Analysis and Design	3
CSIS 44-416 Telecommunications	3
CSIS 44-418 Information Technology Project Management	3
CSIS 44-460 Database Systems	3
CSIS 44-540 Visual Application Development	3
<b>Total Major Requirements</b>	<b>27</b>

NOTE: Grade Requirement: Students must earn a grade of “C” or better in each of the CSIS courses in this major. A major field assessment is required of all senior year students majoring in MIS.

## # Comprehensive Major in Office Information Systems: B.S.—No Minor Required

The offering of this major is contingent upon State approval. First planned offering of this major is Fall 2006.

Students choosing a Comprehensive Major in Office Information Systems must take the common professional component courses previously outlined on page 230 plus fulfill the following major requirements:

Required Courses	Semester Hours
CSIS 44-211 Spreadsheet Applications	1
CSIS 44-212 Advanced Spreadsheets and Charting	1
CSIS 44-245 DigiTools	3
- CSIS 44-331 Integrated Software Applications	3
CSIS 44-343 Virtual Workplace	3
CSIS 44-344 Desktop Publishing	3
CSIS 44-346 Database Applications	1
Advisor-approved electives	3
<b>Choose one of the following emphasis areas for six hours</b>	<b>6</b>

### Interactive Digital Media Emphasis

- CSIS 44-143 Script Programming (3)
- CSIS 44-333 Multimedia and Web Development (3)

OR

### Management Emphasis

- Mgmt 54-314 Human Resource Management (3)
- Mgmt 54-316 Organizational Behavior and Theory (3)

<b>Total Major Requirements</b>	<b>24</b>
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## # Major in Business Education: B.S.Ed., Secondary Program— No Minor Required (Certifies Grades 9-12)

Students choosing a Major in Business Education must take the common professional component courses totaling 48 hours previously outlined on page 230, plus fulfill the following major requirements:

Required Courses	Semester Hours
CSIS 44-245 DigiTools	3
CSIS 44-331 Integrated Software Applications	3
CSIS 44-343 Virtual Workplace OR CSIS 44-495 Internship in Computer Science/Information Systems	3
CSIS 44-344 Desktop Publishing	3
CSIS 44-584 Implementing Business Education Programs	3
<b>Total Major Requirements</b>	<b>15</b>

CSIS 44-580 Methods of Teaching Business is the required subject field methods course.

## MINORS

All minors and endorsements in the Computer Science/Information Systems department require CSIS 44-130 Computers and Information Technology as a prerequisite course as required by course descriptions.

### Minor in Computer Science

Required Courses	Semester Hours
CSIS 44-141 Computer Programming I	3
CSIS 44-241 Computer Programming II	3
CSIS 44-242 Data and File Structures	3
CSIS 44-345 Computer Organization I	3

NOTE: CSIS 44-241 has a prerequisite of Math 17-110 or 17-118, and CSIS 44-345 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 most 3 hours from the following electives: 0-3

- CSIS 44-140 Visual Basic Application Programming (3)
- CSIS 44-149 Scientific Computing (3)
- CSIS 44-250 COBOL Programming (3)

Choose at least 6 hours from the following electives: 6-9

- CSIS 44-325 Programming Languages (3)
- CSIS 44-349 Survey of Algorithms (3)
- CSIS 44-445 Computer Organization II (3)
- CSIS 44-450 Operating Systems (3)
- CSIS 44-455 Computer Networks (3)
- CSIS 44-460 Database Systems (3)
- CSIS 44-525 Theory and Implementation of Programming Languages (3)
- CSIS 44-561 Software Engineering I (3)

CSIS 44-540 Visual Application Development (3) OR  
 CSIS 44-590 Special Topics (3)

Total Minor Requirements 21

NOTES: (1) Grade Requirement: Students must earn a grade of “C” or better in each of the Computer Science courses in the 21-hour minor. (2) Java as a Second Language (CSIS 44-239) plus two hours of advisor-approved electives in computer science can substitute for CSIS 44-141 and 44-241 in the computer science minor.

### Minor in Computer Networking

Required Courses	Semester Hours
CSIS 44-141 Computer Programming I	3
CSIS 44-241 Computer Programming II	3
CSIS 44-455 Computer Networks	3
CSIS 44-460 Database Systems	3
CSIS 44-555 Server Applications and Network Security	3
CSIS 44-563 Web Services Technology	3
Select one of two tracks for an additional six hours:	6
<b>Computer Science (CS)*</b>	
CSIS 44-345 Computer Organization I (3)	
CSIS 44-450 Operating Systems (3)	
OR	
<b>Management Information Systems (MIS)</b>	
CSIS 44-312 Information Technology Hardware and Software (3)	
CSIS 44-416 Telecommunications (3)	
Total Minor Requirements	24

\*Students who have taken CSIS 44-242 Data and File Structures may choose this track.

NOTE: Grade Requirement: Students must earn a grade of “C” or better in each of the Computer Science courses in the 24-hour minor.

### Minor in Business Education, 30-33 hours: B.S.Ed., Secondary Program (Certifies Grades 9-12)—See Professional Education Requirements

Required Courses	Semester Hours
CSIS 44-245 DigiTools	3
CSIS 44-331 Integrated Software Applications	3
CSIS 44-343 Virtual Workplace	3
Acct 51-201 Accounting I	3
Econ 52-150 General Economics I	3
Fin 53-311 Business Law I	3
Mgmt 54-310 Managerial Communication	3
Mgmt 54-313 Principles of Management	3
Mkt 55-330 Principles of Marketing	3
CSIS 44-584 Implementing Business Education Programs	3
CSIS 44-495 Internship in Computer Science/Information Systems (3) OR 2000 Work Hours in a Business/Office	0-3
Total Minor Requirements	30*-33**

\* 30 hours is minimum required for initial business education certification as prescribed by DESE.

\*\* 33 hours is minimum hours required if a student does not have 2000 hours in business/office related work experience.

## Endorsement for Middle School Certification—Business Education, Grades 5-9

Certifies grades 5-9 when completed with the Middle School Major

Required Courses	Semester Hours
CSIS 44-245 DigiTools	3
CSIS 44-211 Spreadsheets	1
CSIS 44-212 Advanced Spreadsheets and Charting	1
CSIS 44-331 Integrated Software Applications	3
CSIS 44-333 Multimedia and Web Development	3
CSIS 44-344 Desktop Publishing	3
CSIS 44-346 Database Applications	1
Econ 52-130 Survey of Economics	3
Fin 53-120 Personal Money Management	3
<b>Total Endorsement Requirements</b>	<b>21</b>

## Minor in Database Management Systems: 21 hours

Required Courses	Semester Hours
CSIS 44-141 Computer Programming I	3
CSIS 44-241 Computer Programming II	3
CSIS 44-460 Database Systems	3
CSIS 44-540 Visual Application Development	3
CSIS 44-560 Advanced Topics in Database Systems	3
CSIS 44-563 Web Services Technology	3
<b>Choose three hours of electives:</b>	<b>3</b>
CSIS 44-242 Data and File Structures (3)	
CSIS 44-250 COBOL Programming (3)	
CSIS 44-411 Systems Analysis and Design (3)	
<b>Total Minor Requirements</b>	<b>21</b>

NOTES: 1) CSIS 44-241 has a prerequisite of Math 17-110, 17-114 or 17-118. 2) CSIS 44-411 has a prerequisite of Mgmt 54-313 and CSIS 44-317. 3) Grade Requirement: Students must earn a grade of "C" or better in each of the Computer Science courses in the 21-hour minor.

## Minor in Computer Applications: 24-25 hours

Required Courses	Semester Hours
CSIS 44-130 Computers and Information Technology	3
CSIS 44-140 Visual Basic Application Programming	3
CSIS 44-245 DigiTools	3
CSIS 44-312 Information Technology Hardware and Software	3
CSIS 44-331 Integrated Software Applications	3
CSIS 44-333 Multimedia and Web Development	3
CSIS 44-344 Desktop Publishing	3
<b>Select at least three hours from the following electives:</b>	<b>3-4</b>
CSIS 44-143 Script Programming (3)	
CSIS 44-211 Spreadsheet Applications (1)	
CSIS 44-212 Advanced Spreadsheets and Charting (1)	
CSIS 44-257 Networking Basics (4)	
CSIS 44-346 Database Applications (1)	
<b>Total Minor Requirements</b>	<b>24-25</b>

NOTE: Students with a Comprehensive Major in Office Information Systems are not permitted to minor in Computer Applications.

**Minor in Systems Management: 25 hours**

CSIS 44-130 Computers and Information Technology	3
CSIS 44-140 Visual Basic Application Programming OR	
CSIS 44-141 Computer Programming I	3
CSIS 44-296 Professional Development Seminar	1
CSIS 44-317 Management Information Systems	3
CSIS 44-411 Systems Analysis and Design	3
CSIS 44-418 Information Technology Project Management	3
Acct 51-201 Accounting I	3
Mgmt 54-313 Principles of Management	3
Mkt 55-330 Principles of Marketing	3

**Total Minor Requirements** 25

**Minor in Interactive Digital Media: 24 hours**

This is an interdisciplinary minor in conjunction with Art, Computer Science/Information Systems and Mass Communication.

This minor requires CSIS 44-130 Computers and Information Technology as a prerequisite course as required by course descriptions.

Required Courses	Semester Hours
Art 13-191 Introduction to Design	3
Art 13-292 Introduction to Creative Electronic Imaging	3
MC 20-243 Media Design I	3
MC 20-303 Introduction to Web Publishing	3
CSIS 44-143 Script Programming I	3
CSIS 44-333 Multimedia and Web Development	3
<b>Electives (Select any six hours from the following):</b>	<b>6</b>
Art 13-120 Drawing (3)	
Art 13-207 Digital Photography (3)	
MC 20-301 Multimedia Audio/Video Production (3)	
MC 20-334 Multimedia Production (3)	
CSIS 44-141 Computer Programming I (3)	
CSIS 44-335 Script Programming II (3)	
<b>Total Minor Requirements</b>	<b>24</b>

**Minor in Geographic Information Systems: 28 hours**

This is an interdisciplinary minor in conjunction with Computer Science/Information Systems and Geography.

This minor requires CSIS 44-130 Computers and Information Technology as a prerequisite course as required by course descriptions.

Required Courses	Semester Hours
<b>Geography</b>	
Geog 32-201 Maps and Map Interpretation	3
Geog 32-365 Geographic Information Systems	3
Geog 32-565 Advanced Geographic Information Systems	3



**Computer Science**

CSIS 44-140 Visual Basic Application Programming	3
CSIS 44-141 Computer Programming I	3
CSIS 44-241 Computer Programming II	3
CSIS 44-346 Database Applications	1
CSIS 44-460 Database Systems	3

**Advisor-Approved Electives**

Geog 32-362 Cartography (3)	6
Geog 32-363 Remote Sensing (3)	
Geog 32-562 Advanced Cartography (3)	
Geog 32-563 Digital Image Processing (3)	
CSIS 44-242 Data and File Structures (3)	
CSIS 44-331 Integrated Software Applications (3)	
CSIS 44-540 Visual Application Development (3)	
CSIS 44-590 Current Topics in Computer Science (1-3)	

**Total Minor Requirements**

28

**NON-DEGREE PROGRAMS**

The Melvin D. and Valorie G. Booth College of Business and Professional Studies offers a two-year office systems program and a two-year medical administrative assistant program. On the successful completion of a program, the student is awarded a certificate. Unless otherwise noted, all courses in these programs 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 Computer Science/Information Systems department require CSIS 44-130, Computers and Information Technology, as a prerequisite course as required by course descriptions.

**Office Systems Certificate, 60 hours****Required Courses****Semester Hours**

76-101 Freshman Seminar	1
Psych 08-103 General Psychology	3
Eng 10-111/112 Composition OR ACT English credit/10-115 Honors Composition	6
CSIS 44-130 Computers and Information Technology	3
CSIS 44-211 Spreadsheet Applications	1
CSIS 44-212 Advanced Spreadsheets and Charting	1
CSIS 44-221 Web Page Development	1
CSIS 44-245 DigiTools	3
CSIS 44-331 Integrated Software Applications	3
CSIS 44-343 Virtual Workplace	3
CSIS 44-346 Database Applications	1
Com 29-102 Fundamentals of Oral Communication	3
Acct 51-201 Accounting I	3
Acct 51-202 Accounting II	3
Fin 53-311 Business Law I	3
Mgmt 54-310 Managerial Communication	3
Mgmt 54-313 Principles of Management	3
Advisor approved electives to total 60 hours	16

Required courses plus advisor-approved electives to total 60 hours with a 2.00 grade point average.

## Information Systems Certificate, 15 hours

The offering of this certificate is contingent upon State approval. First planned offering of this certificate is Fall 2006.

Required Courses	Semester Hours
CSIS 44-130 Computers and Information Technology	3
CSIS 44-140 Visual Basic Application Programming	3
CSIS 44-331 Integrated Software Applications	3
CSIS 44-333 Multimedia and Web Development	3
CSIS 44-344 Desktop Publishing	3

## Medical Administrative Assistant, 60 hours

The Medical Administrative Assistant Program is in cooperation with the Department of Biological Sciences. Requirements for the Two-Year Medical Administrative Assistant Certificate are:

Required Courses	Semester Hours
76-101 Freshman Seminar	1
Bio 04-102/103 General Biology and Lab	4
Bio 04-104 Medical Terminology	3
Bio 04-114/115 General Zoology and Lab	4
Bio 04-140 General Microbiology	4
Bio 04-436 Human Anatomy	4
Eng 10-111/112 Composition OR ACT English credit/10-115 Honors Composition	6
Math 17-118 College Algebra	3
Chem 24-112/113 General Chemistry and Lab	4
CSIS 44-130 Computers and Information Technology	3
CSIS 44-211 Spreadsheet Applications	1
CSIS 44-212 Advanced Spreadsheets and Charting	1
CSIS 44-245 DigiTools	3
CSIS 44-331 Integrated Software Applications	3
CSIS 44-343 Virtual Workplace	3
CSIS 44-346 Database Applications	1
Acct 51-201 Accounting I	3
Mgmt 54-310 Managerial Communication	3
Mgmt 54-313 Principles of Management	3
<b>Choose three hours from the following:</b>	<b>3</b>
CSIS 44-221 Web Page Development (1)	
Bio 04-293 Medical Transcription and Medical Records Practicum (2)	
Fin 53-311 Business Law I (3)	
Psych 08-103 General Psychology (3)	
<b>Total Hours Required</b>	<b>60</b>

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## Course Descriptions

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### Computer Science/ Information Systems / 44

#### **130 Computers and Information Technology (3 hours)**

Introduction to computer systems. Topics include integrated office applications, hardware, software, Internet, and the rights and responsibilities of computer users. (F, S, SS)

#### **331 Integrated Software Applications (3 hours)**

This project-oriented course will allow students to explore an advanced integrated computer application, providing them with a technological problem-solving tool. An active learning environment that encourages students to reflect upon technological problems and developmental models leading to computer application solutions will be utilized. Student work will culminate with an integrated project that accentuates object linking and embedding. Prerequisite: CSIS 44-130. (S)

#### **495 Internship in Computer Science/ Information Systems (1-3 hours)**

Prerequisites: 9 hours in computer science/information systems and permission of department chairperson. (F, S)

#### **499 Independent Study (1-3 hours)**

Prerequisite: Consent of instructor (F, S)

#### **599 Special Projects (1-6 hours)**

Prerequisites: 30 hours in the department and consent of instructor. (F, S)

## COMPUTER SCIENCE

#### **140 Visual Basic Application Programming (3 hours)**

An introduction to event-driven programming in an object-oriented environment. Prerequisites: 2 units of high school algebra and some previous computing experience (CSIS 44-130, for example). (F)

#### **141 Computer Programming I (3 hours)**

An introduction to object-oriented programming; analyze problems, design and implement solutions. Prerequisites: 2 units of high school algebra and

some previous computing experience (CSIS 44-130, for example). (F, S)

#### **149 Scientific Computing (3 hours)**

Tools and techniques for using a computer to solve numeric problems with an emphasis on scientific and mathematical applications. Prerequisites: Math 17-117 and CSIS 44-130, with a grade of "C" or better in each. (S)

#### **239 Java as a Second Language (4 hours)**

An intensive introduction to object-oriented programming using the Java programming language. Course is designed for those who have studied programming in a language other than Java. No credit will be given if student has already completed CSIS 44-241. Prerequisite: A two-semester sequence in a programming language other than Java.

#### **241 Computer Programming II (3 hours)**

Intermediate computer programming, design of algorithms and introduction to data structures. Prerequisites: CSIS 44-141, and Math 17-110 or 114 or 117 or 118, with a grade of "C" or better. (F, S)

#### **242 Data and File Structures (3 hours)**

Abstract data structures including stacks, queues, lists and trees. File structures emphasizing random access files. Construction of graphical user interfaces. Prerequisite: CSIS 44-241, with a grade of "C" or better, or consent of instructor. (F, S)

#### **250 COBOL Programming (3 hours)**

Structured COBOL and its applications to programming business information systems. Prerequisite: CSIS 44-241, with a grade of "C" or better, or consent of instructor. (F)

#### **255 CCNA1: Networking Basics (4 hours)**

The first of four courses leading to the Cisco Certified Network Associate (CCNA) certification. Students learn fundamental computer networking terms, concepts and components. Develops skills in basic network configuration, connectivity and testing using workstations, hubs, routers and switches. Also develops skills in cable construction and testing, small model LAN and WAN construction, IP addressing and basic subnetting. Prerequisite: CSIS 44-130.

**257 CCNA2: Routers and Routing Basics (4 hours)**

The second of four courses leading to the Cisco Certified Network Associate (CCNA) certification. Students develop skills in router configuration, Cisco IOS Software management, routing protocol configuration, and the creation and placement of Access Control Lists (ACLs) to control router access. Prerequisite: CSIS 44-255.

**296 Professional Development Seminar (1 hour)**

Emphasis on ethical issues in the workplace and professional development for the field of computing. Prerequisite: Sophomore standing. (F)

**325 Programming Languages (3 hours)**

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 44-242, with a grade of "C" or better. (S)

**345 Computer Organization I (3 hours)**

Introduction to computer systems organization with emphasis on machine language and assembler programming. Prerequisites: CSIS 44-242, with a grade of "C" or better, and one trimester of chemistry, physics or physical science. (S)

**349 A Survey of Algorithms (3 hours)**

A study of algorithms central to the major areas of computer science. Prerequisites: CSIS 44-242 and Math 17-120 and 215, each with a grade of "C" or better. (S)

**355 CCNA3: Switching Basics and Intermediate Routing (4 hours)**

The third of four courses leading to the Cisco Certified Network Associate (CCNA) certification. Students develop skills in configuration of advanced IP addressing techniques and intermediate routing protocols, Command Line Interface (CLI) switch configuration, Ethernet switching, Virtual Local Area Network (VLAN) configuration, VLAN Trunking Protocol (VTP) configuration and inter-VLAN routing configuration. Prerequisite: CSIS 44-257.

**357 CCNA4: WAN Technologies (4 hours)**

The last of four courses leading to the Cisco Certified Network Associate (CCNA) certification. Students develop skills in the configuration of advanced IP addressing techniques, WAN technology evaluation, WAN design, WAN protocol

configuration and troubleshooting, and network management. Prerequisite: CSIS 44-355.

**445 Computer Organization II (3 hours)**

A continuation of CSIS 44-345 with emphasis on processor design, pipelining, memory hierarchy and input/output. Prerequisite: CSIS 44-345, with a grade of "C" or better. (F)

**450 Operating Systems (3 hours)**

Course covers concepts of operating systems, including process and storage management, protection, security and distributed systems. Prerequisite: CSIS 44-345, with a grade of "C" or better. (S)

**455 Computer Networks (3 hours)**

Course covers theoretical networking concepts and provides students with some hands-on experience. Prerequisite: CSIS 44-241 and 312, or 345, with a grade of "C" or better. (F)

**460 Database Systems (3 hours)**

An introduction to database systems, including data modeling, design, and implementation. Prerequisite: CSIS 44-241, with a grade of "C" or better. (F)

**471 Practicum in Computer Science Teaching (1 hour)**

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. Prerequisites: 10 hours of computer science and 5 hours of education. (F, S)

**525 Theory and Implementation of Programming Languages (3 hours)**

Syntax and semantics of programming languages; the translation process; and features of procedural, applicative, and object-oriented languages. Prerequisite: CSIS 44-242, with a grade of "C" or better, or consent of instructor. (F)

**540 Visual Application Development (3 hours)**

An introduction to programming Microsoft Windows applications. Prerequisite: CSIS 44-460, or CSIS 44-241 and 346, with a grade of "C" or better; or equivalent (prerequisite may be taken concurrently). (S)

**555 Server Applications and Network Security (3 hours)**

A study of computer network security issues.

Includes hands-on experience in server applications as well as some practice in client/server programming. Prerequisite: CSIS 44-455, with a grade of "C" or better. (S)

### **560 Advanced Topics in Database Systems (3 hours)**

Advanced topics in database systems, including database administration, distributed databases, data warehousing and object-oriented databases. Hands-on experience using a DBMS in a client/server environment. Prerequisite: CSIS 44-460, with a grade of "C" or better or graduate standing with some prior database experience. (S)

### **561 Software Engineering I (3 hours)**

A study of systems analysis, requirements specification, and human computer interaction. Prerequisites: CSIS 44-242 and 460, with a grade of "C" or better. (F)

### **562 Software Engineering II (3 hours)**

A study software design, testing and project management. Prerequisite: CSIS 44-561, with a grade of "C" or better. (S)

### **563 Web Services Technology (3 hours)**

Course covers technologies and protocols supporting web services. The XML-based industry standards and the Java-based technologies that support web services will be covered, including XML, SOAP, XSL, XSLT, UDDI, WSDL, servlets, Java Server Pages, J2EE and JDBC. Hands-on experience in server-side programming. Examples and case studies will use relational databases. Prerequisites: CSIS 44-241 and 460, each with a grade of "C" or better. (F)

### **590 Current Topics in Computer Science (1-3 hours)**

Courses emphasizing current topics 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. Prerequisite dependent upon topic.

## **INTERACTIVE DIGITAL MEDIA**

### **143 Script Programming I (3 hours)**

An introduction to a script language for multimedia software applications. Prerequisite: CSIS 44-130. (F, S)

### **333 Multimedia and Web Development (3 hours)**

This course will acquaint the student with a variety

of multimedia resources that could be incorporated in the design and production of a multimedia project on a variety of computer platforms. The focal points in this class will be on the proper design and generation of multimedia projects with an emphasis on web pages. Prerequisites: CSIS 44-130. (F, S)

### **335 Script Programming II (3 hours)**

An introduction to a scripting language that enables web browser interactivity. Prerequisites: CSIS 44-333 and some previous programming experience (CSIS 44-141 or 143 for example) is required. (S)

### **415 Interactive Digital Media Seminar (1 hour)**

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)

## **MANAGEMENT INFORMATION SYSTEMS**

### **312 Information Technology Hardware and Software (3 hours)**

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 44-130 (S)

### **317 Management Information Systems (3 hours)**

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 54-313, CSIS 44-130. (F, S)

### **411 Systems Analysis and Design (3 hours)**

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 44-317, and advanced standing, or consent of the instructor. (F)

**416 Telecommunications (3 hours)**

An introduction to voice and data communication distribution including applications, technical details and managerial aspects. Prerequisites: CSIS 44-312 and 317, one high-level programming language, and advanced standing, or consent of instructor. (F)

**418 Information Technology Project Management (3 hours)**

A detailed study of project management including life cycle, scope, integration, controls and the use of project management software. Prerequisite: CSIS 44-317. (S)

**516 Current Topics in Information Systems (1-3 hours)**

Selected topics in information systems emphasizing current development in the field. May be repeated provided the content is different. Prerequisites: CSIS 44-317 and one high-level programming language or consent of instructor.

**OFFICE INFORMATION SYSTEMS****211 Spreadsheet Applications (1 hour)**

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 44-130. (S)

**212 Advanced Spreadsheets and Charting (1 hour)**

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 44-130, 211. (S)

**221 Web Page Development (1 hour)**

Application of web authoring program to develop, create and maintain a web page. Program used will parallel that found in industry. Prerequisite: CSIS 44-130. (F)

**245 DigiTools (3 hours)**

Emphasis on proficient use of varied input technologies. Students enter and manipulate text and data and prepare documents with handheld and tablet computers, speech recognition software, scanning, handwriting recognition and keyboarding. Prerequisite: CSIS 44-130. (F)

**343 Virtual Workplace (3 hours)**

A study of the functions that make up an office support or information processing system. Through applications, practice, and discussion, students will refine office skills, develop a business vocabulary and perform a variety of office tasks to prepare for a career as an administrative assistant. Prerequisite: CSIS 44-130. (S, odd years)

**344 Desktop Publishing (3 hours)**

Course will identify the concepts and applications of desktop publishing and develop competencies using a powerful computer language as a desktop publishing tool. Prerequisite: CSIS 44-130. (F)

**346 Database Applications (1 hour)**

Applications of database management software for creating, querying and manipulating databases. Prerequisite: CSIS 44-130. (F, S)

**447 Current Topics in Office Information Systems (1-3 hours)**

Topics selected to emphasize the current developments in office systems. May be repeated provided the content is different.

**BUSINESS EDUCATION****580 Methods of Teaching Business (3 hours)**

The selection, development and presentation of the business education curriculum. Includes methods, techniques, assessment and current issues and trends in business education. (F)

**582 Instructional Technology Methods (3 hours)**

An examination of standards, instructional methods and media, assessment and curriculum development for educational technology. The teaching and/or integration of technology throughout K-12 classrooms will be emphasized. (F, odd years)

**584 Implementing Business Education Programs (3 hours)**

Fundamental concepts in business education programs are studied for implementing an effective business education program. The study includes organization and development of curriculum, student organizations, funding, advisory committees and program evaluation. (SS)

# Department of Marketing / 55 and Management / 54

**Chairperson:** James L. Walker

**Faculty:** Terry Coalter, Ron C. DeYoung, Steven Gilbert, Brenda Jones, Cindy Kenkel, Chi Lo Lim, Janet Marta, Blake Naughton, Lisa Phillips, Doug Russell, Tekle Wanorie, Brett Ware

## Statement of Mission

The Department of Marketing and Management's mission is to advance knowledge through a balance of teaching, scholarly activity and service. The faculty in the department provide relevant and quality educational experiences for students which are intended to assist in lifelong learning. The department 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 options offered by the department will have numerous opportunities and avenues to prepare them for ethical participation in the global arena of business and/or organizational life.

## DEGREE PROGRAMS

The Department of Marketing and Management offers programs leading to the Bachelor of Science degree. All majors in Business Management, Marketing and International Business must complete at least 34 hours of the comprehensive major from Northwest. Students majoring in Business Management, International Business or Marketing must earn a grade of "C" or better in all Common Professional Component courses (all those listed on page 230) as well as all major courses (any course applied to the 24-credit hour major with the exception of Mkt 55-440 Business Study Abroad.) All degree programs are ACBSP accredited. Students may select from three comprehensive majors offered by this department:

1. Business Management
2. International Business
3. Marketing

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 in the department 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 majoring in management, international business or marketing will have numerous opportunities and avenues which will prepare them for participation in the world of business.

In addition, the Department of Marketing and Management offers the Minor in General Business to students who major in another discipline. This alternative permits students to gain exposure to the principles and fundamental concepts of business while pursuing a non-business major.

## Advanced Standing Requirement

To ensure students have the necessary tools to begin study in the selected major, the Department of Marketing and Management requires that students must meet certain requirements before enrolling in advanced coursework. Students making application to major in Business Management, International Business or Marketing must achieve Advanced Standing. Failure to achieve Advanced Standing will prohibit the student from graduating with a degree granted by Northwest's Marketing and Management Department.

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 Academic Profile
3. Earn at least a grade of "C" or better in **each** of the five courses listed below:

Math 17-114 General Statistics I	3
Math 17-118 College Algebra	3
Acct 51-201 Accounting I	3
Econ 52-150 General Economics I	3
Econ 52-151 General Economics II	3

<b>Total</b>	<b>15</b>
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Students who have met this Advanced Standing requirement are official members of the department 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 department's Advanced Standing Committee.

## MAJORS

### # Comprehensive Major in Business Management: B.S.—No Minor Required

Students choosing a Comprehensive Major in Business Management must take the common professional component courses previously outlined on page 230 plus fulfill the following major requirements:

Required Courses	Semester Hours
Mgmt 54-314 Human Resource Management	3
Mgmt 54-316 Organizational Behavior and Theory	3
Acct 51-408 Managerial Accounting	3
Mgmt 54-413 Business and Society	3
<b>Students must take two of the following:</b>	<b>6</b>
Econ 52-354 Labor Economics (3)	
Mgmt 54-318 Entrepreneurship (3)	
Mgmt 54-320 Negotiations (3)	
<b>Recommended Electives</b>	<b>6</b>
Any 300- or 400-level business course OR other 300- or 400-level advisor-approved elective	
<b>Total Major Requirements</b>	<b>24</b>

# ACBSP accredited program.



## # Comprehensive Major in International Business: B.S.—No Minor Required

Students choosing a Comprehensive Major in International Business must take the common professional component courses previously outlined on page 230 plus fulfill the following major requirements:

Required Courses	Semester Hours
Econ 52-450 International Economics	3
Mkt 55-431 Logistics Management OR Mkt 55-434 Marketing Management	3
Acct 51-408 Managerial Accounting	3
Mgmt 54-436 Multinational Management	3
<b>International Experience</b>	<b>6</b>
Six hours of business credit which may include courses of study and/or internship <u>in a foreign country</u> .	
Exemptions from the foreign study requirement are available <u>only</u> with chairperson approval.	
International students may choose to fulfill this requirement through internships or other business courses at Northwest.	
<b>Cultural Understanding</b>	<b>6</b>
Students must complete six hours according to Option A or B (Option B required unless fluent in foreign language) based upon advisor direction.	
<b>Option A – Global Political Economy</b>	
PolS 34-525 Transnational Politics (3)	
PolS 34-421 International Relations (3)	
OR	
<b>Option B – Foreign Language</b>	
Six hours above the introductory level; specifically, above the following: French (Lang 14-131) and Spanish (Lang 14-141).	
<b>Total Major Requirements</b>	<b>24</b>

## # Comprehensive Major in Marketing: B.S.—No Minor Required

Students choosing a Comprehensive Major in Marketing must take the common professional component courses previously outlined on page 230 plus fulfill the following major requirements:

Required Courses	Semester Hours
Acct 51-408 Managerial Accounting	3
Mkt 55-333 Consumer Behavior	3
Mkt 55-430 Sales and Sales Management	3
Mkt 55-432 Marketing Research	3
Mkt 55-434 Marketing Management	3
<b>Student must take two of the following:</b>	<b>6</b>
Mkt 55-331 Retailing (3)	
Mkt 55-332 Promotion (3)	
Mkt 55-431 Logistics Management (3)	
<b>Recommended Electives</b>	<b>3</b>
Math 17-316 General Statistics II (3)	
MC 20-243 Media Design I (3)	

# ACBSP accredited program.

- MC 20-343 Media Design II (3)
- MC 20-353 Principles of Print Advertising (3)
- Com 29-325 Listening Behavior and Skills (3)
- Com 29-330 Semantics and Linguistics (3)
- Econ 52-458 Forecasting Business Conditions (3)
- Mgmt 54-314 Human Resource Management (3)
- Mgmt 54-316 Organizational Behavior and Theory (3)
- Mkt 55-435 Intern in Marketing (1-3)
- Other advisor-approved electives (3)

**Total Major Requirements**

**24**

## MINOR

### Minor in General Business

Students choosing the Minor in General Business must take the following courses:

Required Courses	Semester Hours
Acct 51-201 Accounting I	3
Acct 51-202 Accounting II	3
Econ 52-151 General Economics II (Microeconomics)	3
Fin 53-311 Business Law I	3
Fin 53-324 Fundamentals of Business Finance	3
Mgmt 54-310 Managerial Communication	3
Mgmt 54-313 Principles of Management	3
Mkt 55-330 Principles of Marketing	3
<b>Total Minor Requirements</b>	<b>24</b>

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.

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## Course Descriptions

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### Management / 54

#### **310 Managerial Communication (3 hours)**

Designed to acquaint student with current knowledge and emerging trends in managerial 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. The student must complete 40 hours before enrolling in this course. Prerequisites: Com 29-102, Eng 10-112 or 115. (F, S, SS)

#### **313 Principles of Management (3 hours)**

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. (F, S, SS)

#### **314 Human Resource Management (3 hours)**

A study of objectives, functions and organization of typical human resource management, emphasizing job analysis, selection and placement; education

and training; safety and health; employee service; administration of wages and benefits; labor legislation; and personnel research. Prerequisite: Mgmt 54-313 or consent of instructor. (F, S)

### **315 Operations Management (3 hours)**

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 54-313, Math 17-114, 118, or consent of instructor. (F, S)

### **316 Organizational Behavior and Theory (3 hours)**

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 54-313. (F, S)

### **318 Entrepreneurship (3 hours)**

A course designed to aid the prospective small business owner in deciding whether or not to start a service or retail business, become aware of the pitfalls and failure, and understand how various decisions in business might be made to increase chances of success. The small business will be compared and contrasted with the larger corporation on several topics. Prerequisite: Mgmt 54-313 or consent of instructor. (F)

### **320 Negotiations (3 hours)**

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 54-313. (S)

### **340 Special Topics in Business (1-3 hours)**

Provides concentrated study on a special topic in one of the areas in the Melvin D. and Valorie G. Booth College of Business and Professional Studies. Topics will vary. (S, alt. years)

### **413 Business and Society (3 hours)**

Economic, social, technological and ethical problems facing American business and its leaders in the 21st century. Prerequisites: Mgmt 54-313 and senior standing. (F, S)

### **415 Intern in Management (1-3 hours)**

Students with junior or senior standing, with the permission of the chairperson, may enroll in an intern program with an approved business concern. Prerequisites: Mgmt 54-313 and a 2.5 GPA. (F, S, SS)

### **417 Organizational Policy and Decision-Making (3 hours)**

A course designed to give students the opportunity to integrate information from the functional areas of an organization in the formation and implementation of policy decisions. Computer simulations will also be utilized to simulate organizational decision-making. Prerequisite: Senior standing, Econ 52-150 and 151 and completion of all 200- and 300-level common professional component courses. (F, S)

### **419 Independent Study in Management (1-3 hours)**

A course to provide students with an opportunity to study a particular problem or pursue an independent reading program. Must have permission of chairperson. Prerequisite: Mgmt 54-313. (F, S, SS)

### **436 Multinational Management (3 hours)**

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. (S)

### **440 Employment Strategy (1 hour)**

A study of strategies in the employment seeking process. Topics include resumes, letters of ap-

plication, interviewing, networking and research techniques. Prerequisite: Senior standing or consent of instructor.

## Marketing / 55

### 330 Principles of Marketing (3 hours)

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. (F, S, SS)

### 331 Retailing (3 hours)

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: Mkt 55-330. (F, S)

### 332 Promotion (3 hours)

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: Mkt 55-330. (F, S)

### 333 Consumer Behavior (3 hours)

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: Mkt 55-330. (F, S)

### 430 Sales and Sales Management (3 hours)

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: Mkt 55-330 or Ag 03-302. (F, S)

### 431 Logistics Management (3 hours)

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: Mkt 55-330. (F)

### 432 Marketing Research (3 hours)

An analysis of the various methods and techniques available for collection and interpretation of data as they apply to marketing research. Prerequisites: Math 17-114 and Mkt 55-330. (F, S)

### 434 Marketing Management (3 hours)

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: Mkt 55-330 and senior standing. (F, S)

### 435 Intern in Marketing (1-3 hours)

Students with junior or senior standing with the permission of the chairperson may enroll in an intern program with an approved business concern. Prerequisites: Mkt 55-330 and a minimum 2.5 cumulative GPA. (F, S, SS)

### 438 International Business (3 hours)

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)

### 439 Independent Study in Marketing (1-3 hours)

A course to provide students with an opportunity to study a particular problem or pursue an independent reading program or research program in marketing. Must have permission of chairperson. (F, S, SS)

### 440 Business Study Abroad (1-6 hours)

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 department chair, based upon the rigor and length of the course or extent of the internship.

# Department of Mass Communication / 20

**Chairperson:** Jody Strauch

**Faculty:** Jerry Donnelly, Fred Lamer, Jacquie Lamer, Jason Offutt, Matthew Rouch, Doug Sudhoff, Laura Widmer

**Staff:** Marla McCrary, Will Murphy, Cody Snapp

The Department of Mass Communication offers undergraduate programs of study in the areas of electronic media, print media, advertising and interactive digital media. In harmony with the mission of the Melvin D. and Valorie G. Booth College of Business and Professional Studies, students majoring in mass communication develop not only communication skills (verbal, written, listening and interpersonal) but also critical thinking skills and equipment operation skills, including computers. 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/KDLX, KXCV/KRNW-FM, KNWT-TV, *Northwest Missourian* (print and online) newspaper, *Tower* yearbook and DVD supplement, *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

Broadcasting and journalism majors may not enroll in upper division mass communication courses (numbered 300 or above) prior to successful completion of the Department of Mass Communication's advanced standing requirements:

1. Complete MC 20-120, 130 (or successful completion of available test-out) with minimum grade of "C";
2. Broadcast majors shall complete MC 20-111 with minimum grade of "C";
3. Journalism majors shall complete MC 20-227 with minimum grade of "C";
4. The student shall have an assigned major advisor from the Department of Mass Communication faculty.

## Academic Profile Requirement

Students must receive a score of at least 1 in two of the three test areas or they must retake the Academic Profile Test, an assessment given when the student reaches junior status. Students not reaching this requirement will be notified by either their advisor or the department chairperson. It is the student's responsibility to arrange for retaking the Academic Profile Test.

## DEGREE PROGRAMS

The Bachelor of Arts in Broadcasting (31 hours) and Journalism (31 hours) are 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 Broadcasting (37 hours), in Journalism (37 hours), in Applied Advertising (37 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 Visual 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.

## MAJORS

### Major in Broadcasting: 31 hours, B.A.—Minor Required

Required Courses	Semester Hours
MC 20-111 Introduction to Broadcast Operations	3
MC 20-120 Introduction to Mass Media	3
MC 20-130 Professional Media Writing	3
MC 20-227 Reporting	3
MC 20-313 Principles of Broadcast Advertising	3
MC 20-314 Communication Law	3
MC 20-317 Media Criticism and Responsibility	3
MC 20-320 Theories of Mass Communication	3
MC 20-409 Media Leadership	3
MC 20-412 Comparative Mass Media Systems	3
MC 20-416 Senior Seminar	1

### Major in Broadcasting: 37 hours, B.S.—Minor Required

Required Courses	Semester Hours
MC 20-111 Introduction to Broadcast Operations	3
MC 20-120 Introduction to Mass Media	3
MC 20-130 Professional Media Writing	3
MC 20-224 Radio Production	3
MC 20-225 Television Production	3
MC 20-227 Reporting	3
MC 20-313 Principles of Broadcast Advertising	3
MC 20-314 Communication Law	3
MC 20-315 Broadcast Journalism	3
MC 20-317 Media Criticism and Responsibility	3
MC 20-320 Theories of Mass Communication	3
MC 20-409 Media Leadership	3
MC 20-416 Senior Seminar	1

### Major in Journalism: 31 hours, B.A.—Minor Required

Required Courses	Semester Hours
MC 20-120 Introduction to Mass Media	3

MC 20-130 Professional Media Writing	3
MC 20-227 Reporting	3
MC 20-243 Media Design	3
MC 20-314 Communication Law	3
MC 20-315 Broadcast Journalism	3
MC 20-317 Media Criticism and Responsibility	3
MC 20-320 Theories of Mass Communication	3
MC 20-327 Advanced Reporting	3
MC 20-352 Editing	3
MC 20-416 Senior Seminar	1

### **Major in Journalism: 37 hours, B.S.—Minor Required**

Required Courses	Semester Hours
MC 20-120 Introduction to Mass Media	3
MC 20-130 Professional Media Writing	3
MC 20-227 Reporting	3
MC 20-243 Media Design	3
MC 20-314 Communication Law	3
MC 20-315 Broadcast Journalism	3
MC 20-317 Media Criticism and Responsibility	3
MC 20-320 Theories of Mass Communication	3
MC 20-327 Advanced Reporting	3
MC 20-352 Editing	3
MC 20-358 Feature Writing	3
MC 20-416 Senior Seminar	1
<b>Three hours from the following:</b>	<b>3</b>
MC 20-150 Journalism Practicum (Yearbook) (1)	
MC 20-151 Journalism Practicum (Newspaper) (1)	
MC 20-350 Advanced Journalism Practicum (Yearbook) (2)	
MC 20-351 Advanced Journalism Practicum (Newspaper) (2)	

### **Major in Applied Advertising: 37 hours, B.S.—Minor Required**

The offering of this major is contingent upon State approval. First planned offering of this major is Fall 2006.

Required Courses	Semester Hours
MC 20-111 Introduction to Broadcast Operations	3
MC 20-130 Professional Media Writing	3
MC 20-230 Introduction to Media Advertising	3
MC 20-243 Media Design	3
MC 20-303 Introduction to Web Publishing	3
MC 20-313 Principles of Broadcast Advertising	3
MC 20-314 Communication Law	3
MC 20-343 Advanced Media Design	3
MC 20-353 Principles of Print Advertising	3
MC 20-416 Senior Seminar	1
MC 20-430 Advanced Advertising Strategies	3
<b>Three hours from the following:</b>	<b>3</b>
MC 20-151 Journalism Practicum (Newspaper) (1)	

- MC 20-351 Advanced Journalism Practicum (Newspaper) (2)
- MC 20-215 Practicum in Radio (1)
- MC 20-322 Advanced Practicum in Radio (2)
- MC 20-216 Practicum in Television (1)
- MC 20-326 Advanced Practicum in Television (2)

**Three hours from the following:** 3

- MC 20-317 Media Criticism and Responsibility (3)
- MC 20-409 Media Leadership (3)
- MC 20-452 Internship (3)

### **Major in Advertising: 61 hours, B.S.—No Minor Required**

Directed General Education Courses	Semester Hours
Econ 52-130 Survey of Economics OR	
Econ 52-150 General Economics I	3
Math 17-114 General Statistics I	3
<b>Required Courses</b>	
MC 20-111 Introduction to Broadcast Operations	3
MC 20-130 Professional Media Writing	3
MC 20-151 Journalism Practicum (Newspaper)	1
MC 20-230 Introduction to Media Advertising	3
MC 20-243 Media Design	3
MC 20-313 Principles of Broadcast Advertising	3
MC 20-343 Advanced Media Design	3
MC 20-351 Advanced Journalism Practicum (Newspaper)	2
MC 20-353 Principles of Print Advertising	3
MC 20-416 Senior Seminar	1
MC 20-430 Advanced Advertising Strategies	3
Acct 51-201 Accounting I	3
Acct 51-202 Accounting II	3
Fin 53-311 Business Law I	3
Fin 53-324 Fundamentals of Business Finance	3
Mgmt 54-313 Principles of Management	3
Mkt 55-330 Principles of Marketing	3
Mkt 55-332 Promotion	3
Mkt 55-333 Consumer Behavior	3
Mkt 55-430 Sales and Sales Management	3
Mkt 55-432 Marketing Research	3
Mkt 55-438 International Business	3
<b>Total Hours</b>	<b>61</b>

### **Comprehensive Major in Interactive Digital Media: 61 hours, B.S.—No Minor Required.**

#### **New Media Concentration**

This is an interdisciplinary major in conjunction with the Art, Computer Science/Information Systems and Mass Communication departments. Three concentrations are available for this major: Computer Science Programming (Computer Science/Information Systems), New Media (Mass Communication) and Visual Imaging (Art).



This major requires CSIS 44-130 Computers and Information Technology as a prerequisite course as required by course descriptions.

Required Core Courses	Semester Hours
Art 13-191 Introduction to Design	3
Art 13-207 Digital Photography	3
Art 13-292 Introduction to Creative Electronic Imaging	3
Art 13-294 Letterforms and Graphic Design	3
MC 20-120 Introduction to Mass Media	3
MC 20-243 Media Design	3
MC 20-303 Introduction to Web Publishing	3
MC 20-314 Communication Law	3
CSIS 44-143 Script Programming I	3
CSIS 44-333 Multimedia and Web Development	3
CSIS 44-335 Script Programming II	3
Mkt 55-330 Principles of Marketing	3
<b>Total Core Requirements</b>	<b>36</b>
<b>Required Courses for New Media Concentration:</b>	
MC 20-130 Professional Media Writing	3
MC 20-150 Journalism Practicum (Yearbook) OR MC 20-151 Journalism Practicum (Newspaper)	1
MC 20-230 Introduction to Media Advertising	3
MC 20-301 Multimedia Audio/Video Production	3
MC 20-334 Multimedia Production	3
MC 20-343 Advanced Media Design	3
MC 20-354 Online Magazine Practicum	1
MC 20-403 Advanced Web Publishing OR MC 20-430 Advanced Advertising Strategies	3
MC 20-409 Media Leadership	3
MC 20-415 Interactive Digital Media Seminar	1
<b>Choose one of the following courses:</b>	<b>1</b>
MC 20-150 Journalism Practicum (Yearbook) (1)	
MC 20-151 Journalism Practicum (Newspaper) (1)	
MC 20-350 Advanced Journalism Practicum (Yearbook) (2)	
MC 20-351 Advanced Journalism Practicum (Newspaper) (2)	
MC 20-452 Internship (1)	
<b>Total Concentration Hours</b>	<b>25</b>

### **Concentration in Visual Imaging – see the Art Department**

### **Concentration in Computer Science Programming – see the Computer Science/ Information Systems Department**

## **MINORS**

### **Minor in Broadcasting: 24 hours**

Required Courses	Semester Hours
MC 20-111 Introduction to Broadcast Operations	3
MC 20-120 Introduction to Mass Media	3
MC 20-224 Radio Production	3

MC 20-225 Television Production	3
MC 20-313 Principles of Broadcast Advertising	3
MC 20-314 Communication Law	3
MC 20-317 Media Criticism and Responsibility	3
MC 20-320 Theories of Mass Communication	3

**Students required to take MC 20-120, 314, 317 and 320 in partial fulfillment of a journalism major, must take 12 hours from the following:**

MC 20-303 Introduction to Web Publishing	3
MC 20-315 Broadcast Journalism	3
And six hours from the following:	6
MC 20-329 Advanced Audio Production (3)	
MC 20-330 Advanced Television Production (3)	
MC 20-409 Media Leadership (3)	
MC 20-412 Comparative Mass Media Systems (3)	

### **Minor in Journalism: 24 hours**

Required Courses	Semester Hours
MC 20-120 Introduction to Mass Media	3
MC 20-130 Professional Media Writing	3
MC 20-150 Journalism Practicum (Yearbook)	1
MC 20-151 Journalism Practicum (Newspaper)	1
MC 20-227 Reporting	3
MC 20-243 Media Design	3
MC 20-314 Communication Law	3
MC 20-320 Theories of Mass Communication	3
MC 20-350 Advanced Journalism Practicum (Yearbook) (2) OR MC 20-351 Advanced Journalism Practicum (Newspaper) (2)	1
MC 20-353 Principles of Print Advertising	3

**Students required to take MC 20-120, 130, 227, 314, and 320 in partial fulfillment of a broadcasting major must take:**

MC 20-327 Advanced Reporting	3
MC 20-343 Advanced Media Design	3
MC 20-352 Editing	3
And six hours from the following courses:	6
MC 20-230 Introduction to Media Advertising (3)	
MC 20-303 Introduction to Web Publishing (3)	
MC 20-355 Photojournalism (3)	
MC 20-358 Feature Writing (3)	
MC 20-401 Editorial Writing (3)	

### **Minor in Visual Journalism: 24 hours**

Required Courses	Semester Hours
MC 20-243 Media Design	3
MC 20-255 Introduction to Visual Journalism	3
MC 20-303 Introduction to Web Publishing	3
MC 20-334 Multimedia Production	3
MC 20-343 Advanced Media Design	3
MC 20-355 Photojournalism	3

<b>Journalism Practicum and/or Advanced Practicum (choose any combination):</b>	<b>3</b>
MC 20-150 Journalism Practicum (Yearbook) (1)	
MC 20-151 Journalism Practicum (Newspaper) (1)	
MC 20-350 Advanced Journalism Practicum (Yearbook) (2)	
MC 20-351 Advanced Journalism Practicum (Newspaper) (2)	
MC 20-354 Online Magazine Practicum (1)	

<b>Three hours from the following:</b>	<b>3</b>
MC 20-230 Introduction to Media Advertising (3)	
MC 20-301 Multimedia Audio/Visual Production (3)	
MC 20-353 Principles of Print Advertising (3)	
MC 20-403 Advanced Web Publishing (3)	
CSIS 44-143 Script Programming I (3)	
CSIS 44-333 Multimedia and Web Development (3)	

### **Minor in Advertising: 24 hours**

Required Courses	Semester Hours
MC 20-111 Introduction to Broadcast Operations	3
MC 20-130 Professional Media Writing	3
MC 20-230 Introduction to Media Advertising	3
MC 20-243 Media Design	3
MC 20-313 Principles of Broadcast Advertising	3
MC 20-314 Communication Law	3
MC 20-353 Principles of Print Advertising	3
MC 20-430 Advanced Advertising Strategies	3

### **Minor in Interactive Digital Media: 24 hours**

This is an interdisciplinary minor in conjunction with the Art, Computer Science/Information Systems and Mass Communication departments.

This minor requires CSIS 44-130 Computers and Information Technology as a prerequisite course as required by course descriptions.

Required Courses	Semester Hours
Art 13-191 Introduction to Design	3
Art 13-292 Introduction to Creative Electronic Imaging	3
MC 20-243 Media Design	3
MC 20-303 Introduction to Web Publishing	3
CSIS 44-143 Script Programming I	3
CSIS 44-333 Multimedia and Web Development	3

<b>Electives (Select any six hours from the following):</b>	<b>6</b>
Art 13-120 Drawing (3)	
Art 13-207 Digital Photography (3)	
MC 20-301 Multimedia Audio/Video Production (3)	
MC 20-334 Multimedia Production (3)	
CSIS 44-141 Computer Programming I (3)	
CSIS 44-335 Script Programming II (3)	

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## Course Descriptions

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### Mass Communication/20

#### **111 Introduction to Broadcast Operations (3 hours)**

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)

#### **120 Introduction to Mass Media (3 hours)**

Overview of the history of the media, social responsibilities of the journalist and issues facing the media today. (F, S)

#### **130 Professional Media Writing (3 hours)**

The course will prepare students for media writing, with special emphasis on AP style, news judgment and a thorough review of grammar. (F, S)

#### **150 Journalism Practicum (Yearbook) (1 hour)**

Laboratory practice working on the *Tower* student yearbook. (F, S)

#### **151 Journalism Practicum (Newspaper) (1 hour)**

Laboratory practice working on the *Northwest Missourian* student newspaper. (F, S)

#### **215 Practicum in Radio (1 hour)**

Practical experience on the staff of campus station KZLX-LP/KDLX. Additionally, there are six areas of work: sales, production, promotions, sports, news and music. Prerequisites: MC 20-111. (F, S)

#### **216 Practicum in Television (1 hour)**

Practical experience on the staff of campus station KNWT-TV. The areas of work include the use of television equipment and preparation of programs. Prerequisite: MC 20-111. (F, S)

#### **221 Ethnographic Film Study (3 hours)**

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)

#### **224 Radio Production (3 hours)**

A study of the basic theoretical and practical elements in radio production. Performance,

equipment, program productions and editing are covered. Lecture and laboratory. Prerequisite: MC 20-111. (F, S)

#### **225 Television Production (3 hours)**

Basic theory and practice in television production. Lighting, video cameras, picture aesthetics, television audio and post-production, including non-linear editing, are covered. Prerequisite: MC 20-111. (F, S)

#### **227 Reporting (3 hours)**

Comprehensive preparation in identifying, gathering, structuring and styling news. Prerequisite: MC 20-130. (F, S)

#### **230 Introduction to Media Advertising (3 hours)**

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)

#### **243 Media Design (3 hours)**

Study of newspapers, magazines and corporate publications with a concentration on production and design using computers. (F, S)

#### **255 Introduction to Visual Journalism (3 hours)**

An introduction to visual journalism primarily through the use of still and video camera techniques and its application to various media formats. Includes sections on basic photojournalism techniques, caption writing, news judgment, ethics and basic design techniques. (F)

#### **300 Special Offerings (1-4 hours)**

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.

#### **301 Multimedia Audio/Visual Production (3 hours)**

Audio and video production techniques specifically aimed at multimedia distribution. Video cameras, video photography, videography, non-linear editing and editing aesthetics, multi-track audio and audio aesthetics, streaming signals, file types and interactivity between applications and hardware are covered. (F)

**303 Introduction to Web Publishing (3 hours)**

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. (S)

**313 Principles of Broadcast Advertising (3 hours)**

A study of the techniques of selling, developing and maintaining sales accounts for broadcast stations. Also covers the psychology, ethics and criticism of broadcast advertising as well as practice in writing and research for commercial production. (F, S)

**314 Communication Law (3 hours)**

A study of the legal aspects of the mass media, particularly libel and slander, obscenity, pornography, prior restraint, licensing, invasion of privacy, copyright, FCC regulations and First Amendment problems. Prerequisite: Advanced standing. (F, S)

**315 Broadcast Journalism (3 hours)**

A study of journalism in the electronic media and the writing style for broadcast news. The use of audio and video in reporting the news is also studied. Prerequisite: MC 20-120, 130, and 227. (F)

**317 Media Criticism and Responsibility (3 hours)**

An examination of media ethics and responsibility. Topics for study include news coverage, politics and the media, the role of business, and media performance. Prerequisite: Advanced standing. (S)

**320 Theories of Mass Communication (3 hours)**

Comprehensive examination of historical and contemporary theories of mass communication and the development of mass communication research. Prerequisite: Advanced standing. (F, S)

**322 Advanced Practicum in Radio (2 hours)**

Advanced experience including leadership positions on the staff of campus station KZLX-LP/KDLX. Prerequisites: Advanced standing and MC 20-215.

**326 Advanced Practicum in Television (2 hours)**

Advanced experience on the staff of campus station KNWT-TV. The work includes advanced production, directing and/or management. Prerequisites: Advanced standing and MC 20-216, 225. (F, S)

**327 Advanced Reporting (3 hours)**

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: MC 20-227 and 20-315. (S)

**329 Advanced Audio Production (3 hours)**

A study of the advanced theoretical and practical elements in audio production. Mixing, processing, recording music and audio for video are covered. Prerequisite: MC 20-111. (S, alt. years)

**330 Advanced Television Production (3 hours)**

Advanced study and development of television production skills. Specific areas of study include electronic field production, post production, lighting and set design. Prerequisites: Advanced standing and MC 20-225. (F, alt. years)

**334 Multimedia Production (3 hours)**

This course will examine the types, processes and applications of multimedia content. Emphasis will be on the production of interactive presentations. Prerequisites: MC 20-243 and 303. (F)

**343 Advanced Media Design (3 hours)**

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: MC 20-243. (S)

**350 Advanced Journalism Practicum (Yearbook) (2 hours)**

Advanced laboratory practice working on the Tower student yearbook. Prerequisites: Advanced standing and MC 20-150. (F, S)

**351 Advanced Journalism Practicum (Newspaper) (2 hours)**

Advanced laboratory practice working on the Northwest Missourian student newspaper. Prerequisites: Advanced standing and MC 20-151. (F, S)

**352 Editing (3 hours)**

Theory and practice of news processing, i.e. copy editing, coaching, grammar and news structure. (F)

**353 Principles of Print Advertising (3 hours)**

Emphasis on writing, designing and producing advertisements for newspapers and magazines, including study and application of current advertising techniques. Prerequisites: Advanced standing and MC 20-243. (S)

**354 Online Magazine Practicum (1 hour)**

This practicum offers students an opportunity to work in the areas of feature writing, magazine design, feature/documentary photography, circulation, advertising, sales and marketing. Prerequisite: Advanced standing. (F, S)

**355 Photojournalism (3 hours)**

This course will provide the photographer the knowledge necessary to work as a news photographer. Darkroom work will give students the opportunity to improve and expand technical skills. Prerequisites: Advanced standing and MC 20-255. Art 13-201 is recommended. (S)

**358 Feature Writing (3 hours)**

Writing and revising articles for magazines, writing queries, personality sketches and educational features. Prerequisite: Advanced standing. (S)

**400 Special Offerings (1-3 hours)**

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.

**401 Editorial Writing (3 hours)**

Editorial writing emphasizes writing and critical thinking in the development of institutional and personal editorials for newspapers and other print media. The mission, obligation and history of editorials 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: MC 20-227.

**403 Advanced Web Publishing (3 hours)**

Applying web publishing principles of content coordination, navigation and marketability to the creation of an information-based web site. Prerequisites: MC 20-243 and 303. (S, alt. years)

**409 Media Leadership (3 hours)**

An examination of the organization, operation and policies of media organizations; news evaluation;

planning and budgeting; federal legislation; and legal, ethical and censorship concerns from the perspective of the media manager. Prerequisite: Advanced standing. (F, S)

**412 Comparative Mass Media Systems (3 hours)**

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)

**415 Interactive Digital Media Seminar (1 hour)**

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)

**416 Senior Seminar (1 hour)**

Designed to be the capstone experience for broadcasting and journalism 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)

**417 Television Directing (3 hours)**

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 MC 20-330. (S, alt. years)

**429 Advanced Problems in Broadcasting—Independent Study (1-3 hours)**

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. Prerequisites: Advanced standing and consent of instructor.

**430 Advanced Advertising Strategies (3 hours)**

A capstone course which will apply advertising principles to an actual advertising campaign. Stu-

dents 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: MC 20-230, 243, 313, Mkt 55-330 and 333. (S, alt. years)

**452 Internship (1-3 hours)**

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. Prerequisite: Advanced standing. (F, S, SS)

**459 Independent Study in Journalism (1-3 hours)**

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 secretary's office. Prerequisites: Advanced standing and consent of instructor.

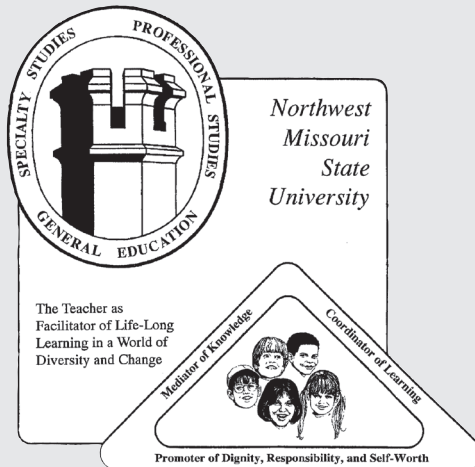
**500 Special Offerings (1-4 hours)**

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.

# The College of Education and Human Services

*Dr. Max Ruhl, Dean*  
*Director, Teacher Education*

- Department of Curriculum and Instruction
- Department of Educational Leadership
- Department of Family and Consumer Sciences
- Department of Health, Physical Education, Recreation and Dance
- Department of Psychology, Sociology and Counseling
- Vocational Education
- Horace Mann School





# College of Education and Human Services

*“Teaching is our passion. . . . . Learning is our profession.”*

**Dean:** Max L. Ruhl

The College of Education and Human Services includes the Departments of Curriculum and Instruction; Educational Leadership; Family and Consumer Sciences; Health, Physical Education, Recreation and Dance; Psychology, Sociology, and Counseling; and the Horace Mann School.

The college contributes to all facets of education within the University by providing courses which assist students in fulfillment of the General Education courses; offerings leading to the completion of B.A., B.S., and B.S.Ed. degrees; and elective coursework.

The professional preparation programs in the College of Education and Human Services and the Teacher Education Unit are accredited by the Missouri State Board of Education (2012) and the National Council for Accreditation of Teacher Education (NCATE).

## **Vision Statement**

The vision of the College of Education and Human Services 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 College of Education and Human Services 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. As a result, we prepare students for leadership careers in business, industry, education, government, recreation, public service and health and wellness.

The goals of the college 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 professional educators who accept responsibility for educating all children.

### **Mission Statement for the Professional Education Unit**

In both graduate and undergraduate programs the unit will:

- Maintain high professional expectations for those entering and exiting our programs.
- Continuously monitor and evaluate the extensive data provided through the Professional Education Unit's assessment system in order to build strong programs and provide the highest levels of guidance and support to our students.
- Provide resources to design programs that incorporate best practice in quality learning experiences, integrating technology in a thoughtful, authentic manner.
- Prepare educators to make informed data-based curricular and instructional decisions that positively impact student achievement.
- Prepare educators who will empower PreK-12 students, including those with unique learning abilities, to be responsible and productive members of society.
- Place a growing emphasis on preparation of teachers in partnership with the Horace Mann Laboratory School and in collaboration with our professional development schools.
- Continue collaborating with all stakeholders (parents, students, current educators, and state and federal agencies) in the preparation of the next generation of educators.
- Collaborate with urban professional development schools, ensuring our teacher candidates, faculty and curricula interact with the urban school environment.

### **Core Values**

Northwest will be a catalyst for education excellence based on the following statements. We are committed to:

- Serving students as our primary focus.
- Having high expectations by assuring that every educator possesses the highest level of knowledge, skills and dispositions.
- Using data to monitor and evaluate candidates and programs for continuous improvement.
- Promoting learner-centered classrooms built on research-based best practice with quality learning experiences integrating technology in a thoughtful and authentic manner.
- Preparing educators to make informed data-based curricular and instructional decisions that positively impact student achievement.
- Providing an educational environment that encourages the health of all students.
- Promoting the ideals of a democratic society and the inherent worth of each individual.
- Collaborating with all stakeholders in the preparation of the next generation of educators
- Preparing leaders in our fields who model integrity and professionalism.

## Continuous Improvement and Program Quality

The 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.

### Teacher Education Resources

Educational Field Experiences.....	Carole Edmonds, Director
Horace Mann School.....	Rebecca Belcher, Director
Teacher Certification.....	Kim Hullinger, Certification Officer
Teacher Education Student Services (TESS).....	Tim Wall, Director
Outreach.....	Sandra Eckert-Stewart, Director
Early Childhood Center.....	Sheila Brookes, Director
Regional Professional Development Center.....	Rebecca Baldwin, Director
Student Support Services.....	Phillip Kenkel, Director
Upward Bound.....	Meredith Naughton, Director
Upward Bound Math and Science.....	James Clark, Director
Missouri Assessment Program (MAP).....	Sally Minnick, Director

## 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, Brown Hall, Room 212.

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 29-102 Fundamentals of Oral Communication, with a grade of "C" or better.
3. Successfully complete Elem Ed 63-211 Observation and Activity in the Elementary School for elementary education programs; Sec Ed 65-262 Middle School Teaching Practicum I for middle school programs; Sec Ed 65-260 Secondary Teaching Practicum I for secondary education programs; Sec Ed 65-260 for elementary-secondary programs; Elem Ed 63-211 or Sec Ed 65-262 or Sec Ed 65-260 for special education programs.
4. Complete at least 45 semester hours of coursework and achieve a minimum cumulative GPA of 2.50 with no more than seven hours below a "C" for all courses used to meet general education requirements.
5. Complete two composition courses or one honors composition, a math course (Math 17-171 for Elementary Education majors), CSIS 44-130 Computers and Information Technology and Com 29-102 Fundamentals of Oral Communication.
6. Achieve a minimum ACT of 20 (or equivalent on the SAT) and a 265 on at least three

areas of the C-BASE (English, Mathematics, Science, Social Studies, Writing Sample) and a minimum of 235 on all areas, or an ACT of 21 (or equivalent on the SAT) or more and a score of 235 on all sections of the C-BASE.

7. Register for admission to the Professional Education Program at the Teacher Education Student Services (TESS) Office in Brown Hall, Room 212, 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 coordinator. 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 C-BASE 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 College BASE 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 College BASE, 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:

- Psych 08-317 Psychology of Early Adolescence
- Ed 61-461 School and Society
- Ed 61-462 School and Society Seminar
- Elem Ed 63-407 Elementary School Language Arts Practicum
- Elem Ed 63-420 Classroom Management/Discipline and Content Instruction
- Elem Ed 63-543 Practicum in Early Childhood Education
- Sec Ed 65-362 Middle School Teaching Practicum II
- Sec Ed 65-430 Teaching Writing in the Middle School
- Sec Ed 65-511 Middle School Curriculum, Methods and Practicum
- Read/Sp 65-520 Techniques of Classroom Management and Discipline
- Read/Sp 65-521 Seminar in Classroom Management
- Read/Sp 66-444 Practicum in Special Education: Cross Categorical
- Read/Sp 66-456 Practicum and Seminar in Elementary School Reading
- Read/Sp 66-544 Practicum in Early Childhood Special Education
- Middle School/Secondary Education Methods Courses (Ag 03-580, Art 13-480, Com 29-480, CSIS 44-580, Eng 10-480, Lang 14-480, FCS 15-580, Math 17-580, Math 17-582, Mus 19-482, Mus 19-484, PE 22-480, PE 22-580, Sci Ed 28-580, Sci Ed 28-582, Soc Sci 36-480)
- 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 policies. Committee members may include the dean of the College of Education and Human Services, chairperson of the Department of Curriculum and Instruction, chairperson of the Department of Educational Leadership, chairperson or director of the student's major studies area, 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 three 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 that the student be dropped from the teacher education program, in which case he or she would not be eligible to earn the B.S.Ed. degree from the University.

## 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 should be obtained online. An overall 2.50 GPA and official admittance to the teacher education program are required (see “Admittance to Teacher Education” on page 291). A minimum GPA of 2.50 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.

Secondary and elementary-secondary program majors are required to successfully complete Read/Sp 66-353; Sec Ed 65-520, and Ed 61-461 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 MoSTEP standards for teacher educators. This is accomplished through authentic assessments such as a portfolio or Teacher Work Sample (TWS).

## Certification Exit Requirements

In addition to satisfying the respective program requirements, each candidate seeking initial certification must achieve:

1. A minimum overall GPA of 2.50;
2. A minimum overall GPA of 2.50 in each of the certificate subject areas;
3. A minimum overall GPA of 2.50 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;
4. A satisfactory score on the appropriate PRAXIS-II Test(s).

## 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. For specific information regarding teacher certification, contact the Teacher Certification Officer.

### **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: [www.nwmissouri.edu/dept/peu/Closer\\_Look\\_files/CloserLook.htm](http://www.nwmissouri.edu/dept/peu/Closer_Look_files/CloserLook.htm).

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## **Course Description**

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### **College of Education and Human Services / 73**

#### **101 Freshman Seminar (1 hour)**

Freshman Seminar is designed to introduce students to Northwest Missouri State University. Topics of exploration will include: 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, taking advantage of cultural and extra-curricular events and assuming responsibility for one's own University experience.

# Department of Curriculum and Instruction

**Chairperson, Department of Curriculum and Instruction:** Barbara Crossland

**Director, Horace Mann School:** Rebecca Belcher

**Director, Early Childhood Center:** Sheila Brookes

The department offers undergraduate programs in elementary education, early childhood education, middle school education and special education.

**Faculty, Department of Curriculum and Instruction:** Jane Andrews, Caroline Clark-Murphy, Margaret Drew, Nancy Foley, Terry Lovelace, Carolyn McCall, Shirley Steffens, Pat Thompson, Carol Tjeerdsma

**Faculty, Horace Mann School:** Reina Drake, Nancy Farlow, Amber Hawk, Linda Heeler, Erin Oehler, Vanessa Parsons, Gina Scott, Julie Sealine, Joseph Suchan, Mary Jane Stiens, Cathi Schwienbart, Lynette Tappmeyer, Amy Vorderbruegge

**Early Childhood Center Personnel:** Meghan Sheil, Debbie Clark

Information regarding program advisement, requirements and certification may be obtained from the following people:

<b>Program</b>	<b>Coordinator</b>
Early Childhood Education . . . . .	Caroline Clark-Murphy
Elementary Education . . . . .	Carolyn McCall
Middle School . . . . .	Patricia Thompson
Special Education . . . . .	Shirley Steffens

## Statement of Mission

The mission of the Department of Curriculum and Instruction is to prepare caring teachers who possess the highest level of professional knowledge, skills and dispositions necessary to help all students learn in a diverse and ever changing world. This principle serves as the guiding framework for the developmental learning opportunities afforded to teachers in training in the various programs offered through the department.

## DEGREE PROGRAMS

### Bachelor of Science in Education

Completion of one of the following curricula, other University requirements and an overall grade point average of 2.50 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** Semester Hours

General Education Requirements (See pages 69-72) 42

Students are advised to complete the following course as a General Education requirement:

Psych 08-303 Educational Psychology (3)

Degree Requirements 6

Ed 61-569 Multiculturalism in Education (3) AND

Lang 14-100 level "Communication and Culture" Modern Languages course\* (3)

\*Includes Lang 14-151 Introduction to Conversational American Sign Language and Deaf Culture.

Within, or in addition to, the General Education requirements, the following **must** be taken for teacher certification:

\*English Composition, two courses

\*Oral Communications, one course (Must achieve grade of "C" or better)

\*Social Studies, one course in each:

American History

American Government

Geography 32-101

Economics 52-130 (52-150 or 151 are acceptable)

\*Natural Sciences, one course in each (both must have a laboratory component)

Biological Science

Physical Science

(Biology (04-102/103) and Physical Science (40-102/103) are

prerequisites for Methods in Elementary School Science 28-380)

\*Humanities

Music (19-201) OR Art (13-102), one course

One course from: Modern Languages, Western and Non-Western

Cultures, Philosophy, Literature, Classical Studies or Theatre and Drama

\*Mathematics

College-level mathematics course (Math 17-171)

(Must achieve grade of "C" or better)

\*Computer Applications

Computers and Information Technology 44-130

\*All of these courses must be a minimum of two semester hours.

Elementary Education Major Requirements 67-70

Concentration in Subject Area of Specialization

(See College of Education and Human Services) 21

**TOTAL MINIMUM ACADEMIC HOURS 124**

# Elementary and Early Childhood Education / 63

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 hours), Early Childhood minor (30-34 hours) or Early Childhood Special Education endorsement (36-39 hours).

## MAJOR

### Major in Elementary Education, 67-70 hours: B.S.Ed., Elementary Program (Certifies Grades 1-6)

Required Courses	Semester Hours
<b>Foundations for Teaching</b>	
Read/Sp 66-301 Reporting Pupil Progress	2
Psych 08-303 Educational Psychology	Directed General Education
Read/Sp 66-371 Introduction to Special Education	2
Psych 08-312 Child Psychology (2) OR Psych 08-333 Developmental Psychology (3)	2-3
Ed 61-461 School and Society	3
<b>Teaching Methods</b>	
Elem Ed 63-216 Literature for the Elementary School	3
PE 22-238 Health and PE Methods in the Elementary School	3
Read/Sp 66-356 Teaching Reading/Language Arts in the Elementary School	4
Read/Sp 66-380 Diagnostic and Corrective Reading	2
Art 13-380 Art in the Elementary School	2
Mus 19-380 Music Methods for Elementary Education	2
Math 17-471 Mathematical Methods for Elementary Teachers	3
Sci Ed 28-380 Methods in Elementary School Science	3
Elem Ed 63-410 Elementary School Social Studies	3
Elem Ed 63-420 Classroom Management/Discipline and Content Instruction	3
<b>Clinical Experiences</b>	
Elem Ed 63-211 Observation and Activity in the Elementary School	1
Elem Ed 63-407 Elementary School Language Arts Practicum	1
Read/Sp 66-456 Practicum and Seminar in Elementary School Reading	3
Elem Ed 63-490 Directed Teaching in the Elementary School	16-18

NOTE: Directed teaching from other certification or other degrees may count for up to 8 hours of the 16 required hours.

**Computer Applications**

CSIS 44-130 Computers and Information Technology	3
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**Elementary School Courses**

Econ 52-130 Survey of Economics OR	
Econ 52-150 General Economics I OR	
Econ 52-151 General Economics II	3
Math 17-371 Algebra and Geometry for Elementary and Middle School Teachers	3
Art 13-102 Art Appreciation (3) OR	
Mus 19-201 The Enjoyment of Music (3)	Directed General Education
(Prerequisite for Art and Music Methods Courses, Art 13-380 & Mus 19-380)	
Geog 32-101 Introduction to Geography (3)	Directed General Education
Math 17-171 Fundamentals of Mathematics (3)	Directed General 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 for specific subject area requirements

**MINOR****Minor in Early Childhood Education, 30-34 hours: B.S.Ed., Elementary Program (Certifies Birth through Grade 3)**

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.

Required Courses	Semester Hours
FCS 15-312 Child Development	3
Elem Ed 63-340 Principles of Early Childhood Education	2
FCS 15-330 Preschool and Elementary Nutrition Education	2
FCS 15-410 Parenthood Education	3
Elem Ed 63-531 Curriculum and Methods in Early Childhood Education	3
Elem Ed 63-532 Family and Community Resources in Early Childhood	2
Elem Ed 63-541 Identifying and Prescribing Instruction in Early Childhood	3
FCS 15-212 Administration of Child Care Programs	3
Elem Ed 63-543 Practicum in Early Childhood	4
**Elem Ed 63-491 Directed Teaching Early Childhood	5-9

\*\*Students enrolling in 66-496 Directed Teaching Early Childhood Special Education for 3 hours should enroll in 5-6 hours in 63-491.

**Certification in Early Childhood Special Education, 6-9 hours: (Certifies Pre-K and K in Missouri)**

This program is designed for the elementary/early childhood major\* who desires to teach pre-kindergarten and kindergarten children who have disabilities.

Elementary Education Requirements	Semester Hours
(See Catalog)	67-70
<b>Early Childhood Requirements</b>	
(See Catalog)	30-34

**Early Childhood Special Education Requirements**

Read/Sp 66-542 Curriculum and Methods in Early Childhood Special Education	3
Read/Sp 66-544 Early Childhood Special Education Practicum (Graduate Students Only) (3) OR	
Read/Sp 66-496 Directed Teaching Early Childhood Special Education (Undergraduates Only) (3-9)	3-9

**Total Hours** 6-9

\*Students not pursuing an elementary/early childhood major should consult with their advisor for requirements.

## Middle School / 65

### MAJOR

#### **Major in Middle School, 49-52 hours: B.S.Ed. degree—Certifiable Subject Field Required**

This major meets Grades 5-9 certification (subject area requirements for Grades 5-9) in Missouri through two or more minor(s), concentration(s), and/or endorsement(s) completed by the student. Students must meet the general studies Missouri certification requirements.

**General Education Requirements (see pages 69-72)** 42

Students are advised to complete the following course as a General Education requirement:

Psych 08-303 Educational Psychology (3)

**Degree Requirement** 6

Ed 61-569 Multiculturalism in Education (3) **AND**

Lang 14-100 level "Communication and Culture" Modern Languages course\* (3)

\*Includes Lang 14-151 Introduction to Conversational American Sign Language and Deaf Culture.

Within, or in addition to, the General Education requirements, the following **must** be taken for teacher certification:

\*English Composition, two courses

\*Oral Communications, one course

\*Social Sciences, one course in each

American Government

American History

One additional course selected from Geography, Economics, Sociology,

Anthropology, or Psychology (Psych 08-303)

\*Natural Sciences, one course in each (both must have a laboratory component)

Biological Science

Physical or Earth Science

\*Mathematics

Two mathematics courses appropriate for middle school level teachers

\*Humanities, one course from two of the following fields

Music (not applied), Art, Modern Languages, Western and Non-Western

Cultures, Philosophy, Literature, Classical Studies, Theatre and Drama

\*Computer Applications

Computers and Information Technology 44-130

\*All of these courses must be a minimum of two semester hours.

<b>Professional Education Requirements</b>	<b>Semester Hours</b>
Ed 61-461 School and Society	3
Ed 65-570 The Middle School	3
Psych 08-303 Educational Psychology	Directed General Education
Psych 08-317 Psychology of Early Adolescence	2
Read/Sp 66-371 Introduction to Special Education	2
<b>Teaching Methods</b>	
Read/Sp 66-353 Teaching Reading in Content Areas	2
Read/Sp 66-356 Teaching Reading/Language Arts in the Elementary School	4
Sec Ed 65-430 Teaching Writing in the Middle School	2
Sec Ed 65-511 Middle School Curriculum, Methods and Practicum	3
Read/Sp 65-520 Techniques of Classroom Management and Discipline	2
Concentration Area Methods Course—One for each minor, concentration and/or endorsement area	5-6
<b>Additional Mathematics Course (State required)</b>	
Math 17-371 Algebra and Geometry for Elementary and Middle School Teachers	3
<b>Computer Applications</b>	
CSIS 44-130 Computers and Information Technology	3
<b>Clinical Experience</b>	
Sec Ed 65-262 Middle School Teaching Practicum I	1
Sec Ed 65-362 Middle School Teaching Practicum II	1
Sec Ed 65-491 Directed Teaching in the Middle School	16-18
Directed teaching from other certification fields may count for up to 10 of the 18 hours. See <b>Middle School Coordinator</b> for advisement.	

#### **Areas of Concentration/Endorsement/Minor**

**Two minors or areas of concentration (21 hours minimum) to be chosen from:**

Language Arts (p. 161, 301), Mathematics (p. 202), Science (p. 111, 128), Social Science (p. 192), Agriculture Education (p. 248), Family and Consumer Sciences (p. 322), Business Education (p. 263), and Drama/Speech (p. 148).

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

<b>Required Courses</b>	<b>Semester Hours</b>
Eng 10-290 Introduction to the Teaching of Writing	3
Eng 10-403 English Grammars	3
Eng 10-590 Young Adult Literature	3
Com 29-325 Listening Behavior and Skills	3
Th 43-460 Creative Dramatics	3
<b>21 Hour Concentration (meets requirements of middle school major)</b>	
<b>Required Courses</b>	<b>15</b>
*Two courses from electives	6

\*See advisor for list of approved electives

Read/Sp 66-356 Teaching Reading/Language Arts in the Elementary School, Read/Sp 66-353 Teaching Reading in Content Areas, and Sec Ed 65-430 Teaching Writing in the Middle School are the required subject field methods courses.

# Reading, Special Education and English Language Learner / 66

K-12 certification in cross categorical special education may be obtained on the B.S.Ed. degree. A minor or second teaching field is not required. However, so few additional hours would be required, strong consideration should be given to a second major in elementary education. The additional requirements are described in the section which follows the cross categorical program. The appropriate PRAXIS II exam must be completed in each major in order to obtain certification in Missouri.

## **B.S.Ed. Degree Requirements, K-12 Special Education Program**

	Semester Hours
General Education Requirements (See pages 69-72)	42

Students are advised to complete the following course as a General Education requirement:

Psych 08-303 Educational Psychology (3)

Degree Requirement	3
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Ed 61-569 Multiculturalism in Education (3) OR

Lang 14-100 level "Communication and Culture" Modern Languages Course\* (3)

\*Includes Lang 14-151 Introduction to Conversational American Sign Language and Deaf Culture.

Within, or in addition to, the General Education requirements, the following **must** be taken for teacher certification:

\*English Composition, two courses

\*Oral Communications, one course (Must achieve grade of "C" or better)

\*Social Studies, one course in each:

American History

American Government

One course from: Geography, Economics, Sociology, Anthropology, or Psychology

\*Natural Sciences, one course in each (one must have a laboratory component)

Biological Science

Physical Science

(Biology (04-102/103) and Physical Science (40-102/103) are prerequisites for Methods in Elementary School Science 28-380)

\*Humanities

Music (19-201) OR Art (13-102), one course

One course from: Modern Languages, Western and

Non-Western Cultures, Philosophy, Literature, Classical Studies

or Theatre and Drama

\*Mathematics

College-level mathematics (Math 17-171)

\*Computer Applications

Computers and Information Technology 44-130

\*All of these courses must be a minimum of two semester hours.

**MAJORS****Major in Special Education: Cross Categorical, 90-95 hours:  
B.S.Ed.—(Certifies Grades K-12)**

Foundations for Teaching	Semester Hours
Read/Sp 66-301 Reporting Pupil Progress	2
Psych 08-303 Educational Psychology	Directed General Education
Read/Sp 66-371 Introduction to Special Education	2
Psych 08-333 Developmental Psychology (3) OR Psych 08-312 Child Psychology (2) AND Psych 08-322 Adolescent Psychology (2)	3-4
Ed 61-461 School and Society	3
Read/Sp 66-470 Assessment in Special Education	3
Read/Sp 66-471 Assessment in Special Education Lab	1
Read/Sp 66-508 Transition/Career Education for Students with Disabilities	2
Read/Sp 66-382 Introduction to Cross Categorical Special Education	3
Teaching Methods	
Elem Ed 63-216 Literature for the Elementary School	3
PE 22-238 Health and PE Methods in the Elementary School	3
Read/Sp 66-356 Teaching Reading/Language Arts in the Elementary School	4
Read/Sp 66-380 Diagnostic and Corrective Reading	2
Art 13-380 Art in the Elementary School	2
Mus 19-380 Music Methods for Elementary Education	2
Math 17-371 Algebra and Geometry for Elementary and Middle School Teachers	3
Math 17-471 Mathematical Methods for Elementary Teachers	3
Sci Ed 28-380 Methods in Elementary School Science	3
Elem Ed 63-410 Elementary School Social Studies	3
Com 29-553 Language, Speech and Hearing of the Exceptional Child	3
Read/Sp 66-574 Teaching Math to Students with Disabilities	2
Read/Sp 66-353 Teaching Reading in Content Areas (2) OR Read/Sp 66-553 The Reading Program in the Secondary School (3)	2-3
Read/Sp 66-540 Behavioral Management Techniques	3
Read/Sp 66-384 Teaching Students in Cross Categorical Special Education: Academic/Behavioral (3) OR Read/Sp 66-385 Teaching Students in Cross Categorical Special Education: Academic/Behavioral, Secondary (3) (see advisor)	3
Read/Sp 66-386 Teaching Students in Cross Categorical Special Education: Functional/Physical (3) OR Read/Sp 66-387 Teaching Students in Cross Categorical Special Education: Functional/Physical, Secondary (3) (see advisor)	3
Computer Applications	
CSIS 44-130 Computers and Information Technology	3
Clinical Experiences	
Elem Ed 63-211 Observation and Activity in the Elementary School (1) OR Sec Ed 65-260 Secondary Teaching Practicum I (1) AND Sec Ed 65-360 Secondary Teaching Practicum II (1) OR Sec Ed 65-262 Middle School Teaching Practicum I (1) AND Sec Ed 65-363 Middle School Teaching Practicum II (1)	1-2
Elem Ed 63-407 Elementary School Language Arts	1

Read/Sp 66-456 Practicum and Seminar in Elementary School Reading	3
Read/Sp 66-444 Practicum: Teaching Students in Cross Categorical Special Education	3
Read/Sp 66-497 Directed Teaching in Cross Categorical Special Education: Elementary (8-9) AND	
Read/Sp 66-498 Directed Teaching in Cross Categorical Special Education: Secondary (8-9)	16-18

NOTE: Directed teaching from other certification or other degrees may count for up to 8 hours of the 16 required hours.

TOTAL MINIMUM ACADEMIC HOURS 135-140

**Dual 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:

Elem Ed 63-420 Classroom Management & Discipline & Content Practica	3
Lang 14-100 level “Communication and Culture” Modern Languages course	3
*Econ 52-130 Survey of Economics OR	
52-150 General Economics I OR	
52-151 General Economics II (if not taken as part of special ed)	3
*Geog 32-101 Introduction to Geography (if not taken as part of special ed)	3
**Elem Ed 63-490 Directed Teaching in the Elementary School	(8-9)

**Total Additional Hours** **9**

\*Either Economics or Geography is required in the major in special education; both are required for elementary education.

\*\*When combined with a major in special education, there are two Directed Teaching placements of 8-9 hours each (one elementary and one special education for a total of 16-18.) Each major, taken separately, would require 16-18 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.

**Concentration in Special Education, 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.

Required Courses	Semester Hours
Read/Sp 66-301 Reporting Pupil Progress	2
Read/Sp 66-380 Diagnostic & Corrective Reading	2
Read/Sp 66-470 Assessment in Special Education	3
Read/Sp 66-471 Assessment in Special Education Lab	1
Read/Sp 66-504 Creating Inclusive Classrooms	3
Read/Sp 66-382 Introduction to Cross Categorical	3
Read/Sp 66-384 Teaching Students in Cross Categorical Special Education: Academic/Behavioral (3) OR	
Read/Sp 66-385 Teaching Students in Cross Categorical Special Education: Functional/Physical (3)	3
Read 66-540 Behavior Management Techniques	3
Read 66-574 Teaching Math to Students with Disabilities	2



# Department of Educational Leadership

**Chairperson, Department of Educational Leadership:** Joyce Piveral

This department offers undergraduate programs in secondary education.

**Faculty, Department of Educational Leadership:** Kristina Alexander, Carole Edmonds, Virgil Freeman, Max Fridell, Michael Graham, Frank Grispino, Janet Glenn, William Hedge, Phillip Messner, Blake Naughton, Max Ruhl, Tim Wall

Additional information may be obtained from the following person:

<b>Program</b>	<b>Coordinator</b>
Secondary Education . . . . .	Cheryl Malm

## Statement of Mission

The department, through the secondary education coordinator, has overall responsibility for coordinating secondary teacher education programs in all academic areas. Our mission is to prepare teachers who can facilitate lifelong learning in a world of change, and serve as effective mediators of knowledge, coordinators of learning, and promoters of dignity, responsibility and self-worth. They should be effective communicators, knowledgeable in the content of their academic discipline and in methods of teaching it, competent and professional in developing a learning climate and assessing learning, and effective as role models and mentors for their students.

## DEGREES

### **Bachelor of Science in Education, Secondary Program (Certifies Grades 9-12)**

Completion of this curriculum, other University requirements, and an overall grade point average of 2.50 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** Semester Hours  
**General Education Requirements (See pages 69-72)** 42

Students are advised to complete the following course as a General Education Requirement:

Psych 08-303 Educational Psychology (3)

**Degree Requirement** 3

Ed 61-569 Multiculturalism in Education (3) **OR**

Lang 14-100 level "Communication and Culture" Modern Languages course\* (3)

\*Includes Lang 14-151 Introduction to Conversational American Sign Language and Deaf Culture.

Within, or in addition to, the General Education Requirements, the following **must** be taken for teacher certification:

\*English Composition, two courses

\*Oral Communications, one course

\*Social Studies, one course in each:

American History

American Government

One course from: Geography, Economics, Sociology,

Anthropology, or Psychology

\*Natural Sciences, one course in each (one must have a laboratory component)

Biological Science

Physical or Earth Science

\*Humanities, one course from two of the following fields:

Music, Art, Modern Languages, Western and Non-Western Cultures,

Philosophy, Literature, Classical Studies, and Theatre and Drama

\*Mathematics (a college-level Mathematics course)

\*All of these courses must be a minimum of two semester hours.

**Professional Education Requirements** 29-30

Sec Ed 65-260 Secondary Teaching Practicum I 1

\*\*Sec Ed 65-360 Secondary Teaching Practicum II 1

Psych 08-303 Educational Psychology Directed General Education

Psych 08-322 Adolescent Psychology 2

Read/Sp 66-371 Introduction to Special Education 2

CSIS 44-130 Computers and Information Technology 3

Special Methods in Education: (See department course listings) 2-3

A special methods course must be completed with each major or minor which carries 9-12 or K-12 certification

Read/Sp 66-353 Teaching Reading in Content Areas 2

\*\*Ed 61-461 School and Society 2

\*\*\*Ed 61-462 School and Society Seminar 1

\*\*Sec Ed 65-520 Techniques of Classroom Management and Discipline 2

\*\*\*Sec Ed 65-521 Seminar in Classroom Management 1

\*\*\*Sec Ed 65-490 Directed Teaching in the Secondary School 10

(Family and Consumer Sciences majors should take FCS 15-490 Directed Teaching in Vocational Family and Consumer Sciences Education)

**Major or Major/Minor Requirements and Electives** 55-60

**TOTAL MINIMUM ACADEMIC HOURS** 124

\*\*These courses are to be taken in the same trimester as the content methods course.

\*\*\*These courses must be taken during the student teaching trimester.

## **Bachelor of Science in Education, Elementary-Secondary Program (K-12 Certification)**

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 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>B.S. Ed. Degree Requirements, Elem./Sec. Program</b>	<b>Semester Hours</b>
<b>General Education Requirements (See pages 69-72.)</b>	<b>42</b>
Students complete the general requirements as listed under B.S.Ed., Secondary Program (See page 306.) See general requirements for teacher certification.	

<b>Degree Requirement</b>	<b>3</b>
Ed 61-569 Multiculturalism in Education (3) <b>OR</b>	
Lang 14-100 level "Communication and Culture" Modern Languages course* (3)	

\*Includes Lang 14-151 Introduction to Conversational American Sign Language and Deaf Culture.

<b>Professional Education Requirements</b>	<b>29-30</b>
Sec Ed 65-260 Secondary Teaching Practicum I	1
**Sec Ed 65-360 Secondary Teaching Practicum II	1
Read/Sp 66-371 Introduction to Special Education	2
Psych 08-303 Educational Psychology	Directed General Education
Psych 08-322 Adolescent Psychology	2
CSIS 44-130 Computers and Information Technology	3
Special methods in education (See department course listings)	2-3
A special methods course must be completed with each major or minor which carries 9-12 or K-12 certification	
**Ed 61-461 School and Society	2
***Ed 61-462 School and Society Seminar	1
Read/Sp 66-353 Teaching Reading in Content Areas	2
**Sec Ed 65-520 Techniques of Classroom Management and Discipline	2
***Sec Ed 65-521 Seminar in Classroom Management	1
***Ed 61-490 Directed Teaching in Elementary and Secondary School	10
<b>Major or Major/Minor Requirements and Electives</b>	<b>55-60</b>
<b>TOTAL MINIMUM ACADEMIC HOURS</b>	<b>124</b>

\*\* These courses are to be taken in the same trimester as the content methods course.

\*\*\*These courses must be taken during the student teaching trimester.

Special Education majors should consult with their advisor for program substitutions for Psych 08-322 and Read/Sp 66-353.

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## Course Descriptions

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### Education (General) / 61

#### **210 Field Experience in Diversity (1 hour)**

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)

#### **412 Audio-Visual Aids (2 hours)**

An introductory course designed to familiarize teachers with the general types of audio-visual aids. (F)

#### **461 School and Society (2-3 hours)**

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. (F, S, SS)

#### **462 School and Society Seminar (1 hour)**

Course is to be taken during the student teaching trimester and is a continuation of Ed 61-461 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. (F, S)

#### **490 Directed Teaching in Elementary and Secondary School (10 hours)**

This course is offered only for those seeking K-12 certification in art, music and modern languages. (F, S)

#### **511 Instructional Materials and Equipment (2 hours)**

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. (F)

#### **528 Teaching of the Gifted (3 hours)**

Methods, techniques and materials used in the teaching of the gifted. (S, even years)

#### **530 Problems of Adult Education (2 hours)**

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)

#### **550 Trends in Curriculum Development (1-3 hours)**

This course is designed to assist teachers and/or administrators in general curriculum design, revision and/or evaluation. (F, S, SS)

#### **551 Trends in Language Arts (1-3 hours)**

This course is designed to update teachers in methods, techniques and innovations in teaching language arts. (F, S, SS)

#### **552 Trends in Social Studies (1-3 hours)**

This course is designed to update teachers in methods, techniques and innovations in teaching social studies. (F, S, SS)

#### **553 Trends in Mathematics (1-3 hours)**

This course is designed to update teachers in methods, techniques and innovations in teaching mathematics. (F, S, SS)

#### **554 Trends in Science (1-3 hours)**

This course is designed to update teachers in methods, techniques and innovations in teaching science. (F, S, SS)

#### **556 Trends in Classroom Management (1-3 hours)**

This course is designed to update teachers in methods, techniques and innovations in teaching classroom management and discipline. (F, S, SS)

#### **557 Trends in Computer Use in Education (1-3 hours)**

This course is designed to update teachers in educational uses of computers. (F, S, SS)

#### **558 Trends in Motivational Techniques (1-3 hours)**

This course is designed to update teachers in methods, techniques and innovations in classroom motivation of students. (F, S, SS)

**559 Trends in Instructional Techniques (1-3 hours)**

This course is designed to update teachers in general instructional methods and techniques for the classroom. (F, S, SS)

**569 Multiculturalism in Education (3 hours)**

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. Prerequisite: Junior classification. (F, S, SS)

**585 Co-Curricular Activities (3 hours)**

The importance of co-curricular activities is studied through the philosophy and practices of these activities in the modern school. Also emphasized is the role of the teacher-sponsor in the program. (F, even years)

**Early Childhood and Elementary Education/63****211 Observation and Activity in the Elementary School (1 hour)**

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)

**216 Literature for the Elementary School (3 hours)**

Selection and presentation of literature at the various levels of the elementary school. (F, S)

**340 Principles of Early Childhood Education (2 hours)**

This course introduces students to the philosophical and theoretical frameworks of early childhood education. Includes observation and analysis in varied early childhood settings. (F, S)

**407 Elementary School Language Arts Practicum (1 hour)**

Supervised practice in teaching language arts. Prerequisite: Read/Sp 66-356. (F, S, SS)

**410 Elementary School Social Studies (3 hours)**

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. (F, S, SS)

**420 Classroom Management/ Discipline and Content Instruction (3 hours)**

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. In addition, teachers in-training will apply knowledge and strategies in a classroom setting during the clinical component of the class. 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: Elem Ed 63-410, Sci Ed 28-380 and Math 17-471. (F, S, SS)

**490 Directed Teaching in the Elementary School (1-18 hours)**

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 up by the College of Education and Human Services. Prerequisite: Permission of director of educational field experiences. (F, S)

**491 Directed Teaching Early Childhood (1-18 hours)**

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. (F, S)

**519 Problems in Elementary Education (1-4 hours)**

This course is designed to meet the individual student's educational needs. The studies may be either of a subjective or objective research nature. (F, S, SS)

**531 Curriculum and Methods in Early Childhood (3 hours)**

A gradual induction into planning, creating and integrating developmentally appropriate curriculum and materials for working with children birth through grade 3. Prerequisite: Elem Ed 63-340. (S, SS)

**532 Family and Community Resources in Early Childhood (2 hours)**

Study of family and community resources used in working with parents and children, birth through grade 3. Prerequisite: Elem Ed 63-340 or permission of instructor. (F, SS)

**541 Identifying and Prescribing Instruction in Early Childhood Education (3 hours)**

A survey of varied formal and informal evaluation techniques to help teachers screen, diagnose and prescribe instruction for educationally high risk children. Emphasis is placed upon the prevention and correction of developmental deficits. Prerequisites: Elem Ed 63-340 and 531 or permission of instructor. (S, SS)

**543 Practicum in Early Childhood (4 hours)**

Supervised practice in evaluation and teaching children from birth through grade 3. Prerequisites: Elem Ed 63-340, 531 and 541 or permission of instructor. (F, S, SS)

**Middle School and Secondary Education /65****260 Secondary Teaching Practicum I (1 hour)**

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 Sec Ed 65-360. (F, S, SS)

**262 Middle School Teaching Practicum I (1 hour)**

Observation and participation in the middle school (grades 5-9) with both non-instructional and limited instructional responsibilities. A portion of the course is devoted to periodic discussion sessions. (F, S, SS)

**360 Secondary Teaching Practicum II (1 hour)**

Emphasizes practical teaching skills to include observation and practice in a supervised classroom

situation and to promote lifelong habits of professional development. Prerequisite: Sec Ed 65-260 or equivalent. May not be taken during the same trimester as Sec Ed 65-260. (F, S, SS)

**362 Middle School Teaching Practicum II (1 hour)**

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: Sec Ed 65-262 or equivalent. (F, S, SS)

**430 Teaching Writing in Middle School (2 hours)**

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. (F, SS)

**485 Secondary Methods and Techniques (3 hours)**

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. Secondary and elementary/secondary degree candidates must enroll in Read/Sp 66-353, Ed 61-461, Sec Ed 65-490 and/or Ed 61-490 during their professional trimester. (F, S)

**490 Directed Teaching in the Secondary School (10 hours)**

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. (F, S)

**491 Directed Teaching in the Middle School (1-18 hours)**

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. (F, S)

**511 Middle School Curriculum, Methods and Practicum (3 hours)**

Methods and techniques of teaching, practicum experience and curriculum construction for the middle and junior high school with attention given to early adolescent development. (F)

**520 Techniques of Classroom Management and Discipline (2 hours)**

Designed to assist present or prospective teachers in developing classroom and behavior management techniques (F)

**521 Seminar in Classroom Management (1 hour)**

Course is taken during the student teaching trimester and is a continuation of Sec Ed 65-520 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. (F, S)

**570 The Middle School (3 hours)**

Designed to acquaint prospective or experienced teachers and administrators with the functions, organization, curriculum and personnel associated with the middle and junior high school; with concentration on the early adolescent/transient learner. (S, SS, even years)

**598 Problems—Secondary (1-4 hours)**

Designed to meet individual student's needs in independent study. The study topic must be approved by the instructor. (F, S, SS)

**Reading, Special Education and English Language Learner / 66**

**110 Strategies for College Reading (1 hour)**

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)

**301 Reporting Pupil Progress (2 hours)**

A study of group measurement, evaluation, interpretation and counseling techniques used with students, parents and other school personnel. (F, S, SS)

**353 Teaching Reading in Content Areas (2 hours)**

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. Secondary and elementary/secondary candidates must enroll in Ed 61-461, Sec Ed 65-485, Sec Ed 65-490 and/or Elem Ed 61-490 during their professional trimester. (F, S)

**356 Teaching Reading/Language Arts in the Elementary School (4 hours)**

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)

**371 Introduction to Special Education (2 hours)**

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, S, SS)

**380 Diagnostic and Corrective Reading (2 hours)**

Diagnostic techniques and procedures for the correction of learning problems in reading. Prerequisites: Read/Sp 66-301 and 356. (F, S, SS)

**382 Introduction to Cross Categorical Special Education (3 hours)**

Designed to develop knowledge of the issues and characteristics of individuals with mild/moderate disabilities (e.g., mental retardation, 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: Read/Sp 66-371. (S)

**384 Teaching Students in Cross Categorical Special Education: Academic/Behavioral (3 hours)**

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: Read/Sp 66-371 and 382. (F)

**385 Teaching Students in Cross Categorical Special Education: Academic/Behavioral, Secondary (3 hours)**

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: Read/Sp 66-371 and 382. (F)

**386 Teaching Students in Cross Categorical Special Education: Functional/Physical (3 hours)**

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: Read/Sp 66-371 and 382. (S)

**387 Teaching Students in Cross Categorical Special Education: Functional/Physical, Secondary (3 hours)**

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: Read/Sp 66-371 and 382. (S)

**444 Practicum in Special Education: Cross Categorical (3 hours)**

Supervised clinical experience that includes interpretation of intelligence tests, formal and informal diagnostic procedures, prescriptive instruction and

practical application of teaching strategies and behavior management techniques. Prerequisites: Read/Sp 66-384 or 385, Read/Sp 66-386 or 387, Read/Sp 66-470 and 471. (F, S)

**456 Practicum and Seminar in Elementary School Reading (3 hours)**

Supervised practice in teaching reading with weekly seminars regarding problems in the teaching of reading. Prerequisite: Read/Sp 66-356. (F, S, SS)

**470 Assessment in Special Education (3 hours)**

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 Read/Sp 66-471. Prerequisites: Read/Sp 66-301 and 371. (F, S)

**471 Assessment in Special Education Lab (1 hour)**

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. Prerequisite: Must be enrolled concurrently in Read/Sp 66-470. (F, S)

**496 Directed Teaching in Early Childhood Special Education (1-9 hours)**

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. (F, S)

**497 Directed Teaching in Cross Categorical Special Education: Elementary (1-9 hours)**

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. (F, S)



**498 Directed Teaching in Cross Categorical Special Education: Secondary (1-9 hours)**

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. (F, S)

**504 Creating Inclusive Classrooms (3 hours)**

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. Prerequisites: At least two of the following courses: Read/Sp 66-356, Sci Ed 28-380, Math 17-471 or Elem Ed 63-410. (S)

**508 Transition/Career Education for Students with Disabilities (2 hours)**

Acquaints student with the principles, methods and procedures of career development and transition for students with disabilities. Prerequisites: Read/Sp 66-382, 384 and 386, or permission of instructor. (S, SS, odd years)

**522 Technology for Teaching and Learning (3 hours)**

Students will learn about various technologies, applications, procedures and assessment to facilitate the learning of students with disabilities. Topics include assessment, levels of assistive technology services and devices, use of word processing, spreadsheet, and database software in the classroom, student and teacher productivity applications, legal, ethical issues regarding technology in the classroom and instructional software. (F, on-line, odd years)

**540 Behavior Management Techniques (3 hours)**

This course is designed to provide teachers-in-training 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. Prerequisites: Read/Sp 66-371, 382 and 66-384 or 385. Graduate students should have completed Read/Sp 66-371 or 66-671 and 590. (F, SS)

**542 Curriculum and Methods in Early Childhood Special Education (3 hours)**

This course is designed to develop skills which 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: Elem Ed 63-340 or 531, 63-541, Read/Sp 66-470 or 652. (S, odd years, and SS, even years)

**544 Practicum in Early Childhood Special Education (3 hours)**

Supervised practice in early childhood teaching, interpreting individualized tests, and application of behavior management techniques with preschool handicapped children. Prerequisite: Read/Sp 66-542. (S)

**553 The Reading Program in the Secondary School (3 hours)**

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. Prerequisite: Read/Sp 66-353 or 6 hours in reading courses. (S, SS)

**555 Trends in Reading (1-3 hours)**

This course is designed to update teachers in methods, techniques and innovations in teaching reading. (F, S, SS)

**563 Trends in Special Education (1-3 hours)**

This course is designed to update teachers in methods, techniques and innovations in special education. (F, S, SS)

**574 Teaching Math to Students with Disabilities (2 hours)**

Methods and materials used in teaching remedial math to the exceptional learner. (F, SS)

**580 Methods and Techniques for Teaching English Language Learners (ELL/ESOL) (3 hours)**

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 SHOW ME and ELL Standards to the development of curriculum of the content of ELL class. Explores how current trends in developing second language competence, CALLA, and Cooperative Learning are combined to teach language in ESL and mainstream classrooms through a content-based approach. Required for an ESL endorsement.

**582 Linguistics for Teaching ELL/ESOL  
(3 hours)**

Examines the nature of language through a study of pragmatics, semantics, syntax, morphology, and phonology, and 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.

# Department of Family and Consumer Sciences / 15

**Chairperson:** Frances Shipley

**Faculty:** Sheila Brookes, Jenell Ciak, Beth Goudge, Lauren Leach, Connie Neal, Jang-Ae Yang

## Statement of Mission

The Department of Family and Consumer Sciences engages in the scholarship of teaching, discovery and outreach with the ultimate goal of sustaining and enhancing the quality of life for individuals and families in a complex and dynamic world. The department prepares students for careers in child and family studies; foods and nutrition; merchandising of textiles, apparel, and furnishings; family and consumer sciences education; and for graduate education in these and other related areas. Educational experiences offer many opportunities to bridge theory to practice through laboratories, supervised practica, internships and departmental organizations.

## DEGREES AND PROGRAMS

The Department of Family and Consumer Sciences offers programs which lead to the following degrees: Bachelor of Science and Bachelor of Science in Education.

Programs leading to the above degrees are provided in selected areas of dietetics and restaurant food service management; child and family studies; merchandising of textiles, apparel and furnishings; and family and consumer sciences education. These programs provide strong professional/paraprofessional expertise with a broad base of knowledge in general studies, in family and consumer sciences, and in specialized professional skills allowing graduates entry into specialized areas of family and consumer sciences, teaching, graduate or professional study.

## Goals

Programs in the department specifically seek to prepare professionals who (a) understand and appreciate the importance of the family as an institution which fosters the optimum development of each individual; (b) guide the critical examination and application of concepts, principles and generalizations unique to family and consumer sciences; (c) achieve and communicate expertise in areas which contribute to the quality of life for individuals and families; (d) achieve expertise in managing personal and family resources to attain consciously-derived goals and values; (e) synthesize interdisciplinary knowledge for effective participation in the total economic and cultural systems; (f) have insight into the interrelationships of specialized areas as they relate to the root disciplines and within family and consumer sciences; (g) have competencies to work cooperatively with other agencies and institutions within the region; (h) have appreciation for applied research as it contributes to the continued development of family and consumer sciences; and (i) clearly articulate the holistic philosophy to contribute to the optimum well-being of families and individuals.

## Accreditations

The programs offered by the department are accredited by the Council for Accreditation of the American Association of Family and Consumer Sciences, Washington, D.C. The Child and Family Studies major has been approved by the National Council of Family Relations for the abbreviated application process for Certified Family Life Educator. The Early Childhood Center under the direction of the Family and Consumer Sciences Department is accredited by the National Association for Education of Young Children. The Didactic Program in Dietetics at Northwest has been placed on probationary accreditation pending review April 22, 2006, by the Commission on Accreditation for Dietetics Education (CADE) of the American Dietetic Association, 120 South Riverside Plaza, Suite 2000, Chicago, IL 60606, (312) 899-0040, ext. 5400. This program meets the academic requirements outlined in CADE's "Standards of Education." The department is a member of the Missouri Restaurant Association. The Family and Consumer Sciences Education Program is fully accredited by NCATE and the Department of Elementary and Secondary Education in Missouri.

## Advanced Standing Requirement

Students majoring in programs in Family and Consumer Sciences must meet the Family and Consumer Sciences requirement for advanced standing, which requires that every student must complete 15 credit hours including Eng 10-111, Eng 10-112, Com 29-102, a course meeting the Mathematics requirement, and CSIS 44-130 by the end of the sophomore year. A student must present a cumulative grade point average of 2.00 in the courses required for advanced standing in Family and Consumer Sciences. In addition, all Family and Consumer Sciences majors must complete a 100- or 200-level course required for their major and FCS 15-201 before being permitted to take any 300- or 400-level course within the Family and Consumer Sciences Department.

All senior year students seeking the B.S. or B.S.Ed. in any major within the Department of Family and Consumer Sciences are required to take the Departmental Senior Examination and present a portfolio. These are graduation requirements.

## MAJORS

### Major in Child and Family Studies, 44-46 hours: B.S.—Minor Required

This program prepares graduates to work with home and community-based programs serving children, families, older adults and other special populations. In addition, graduates may assume positions in governmental agencies, administration of child care programs, children's protection services, family planning and family life education and older adult programs. This major has been approved by the National Council of Family Relations for the abbreviated application process for Certified Family Life Educator (CFLE).

General Education requirements must include Bio 04-102/103 General Biology and Lab, and either Soc 35-101 General Sociology or Econ 52-150 General Economics I or Econ 52-130 Survey of Economics.

#### Required Courses

#### Semester Hours

#### Family and Consumer Sciences Core

FCS 15-201 Foundations and Careers in Family and Consumer Sciences	2
FCS 15-401 Issues in Family and Consumer Sciences	3

**Specialization Requirements**

FCS 15-212 Administration of Child Care Programs OR	
FCS 15-316 Gerontology OR	
FCS 15-540 The Adult Learner*	3
FCS 15-214 Human Development	3
FCS 15-250 Contemporary Housing	3
FCS 15-310 Family Relationships	3
FCS 15-312 Child Development	3
FCS 15-322 Consumer Economics and Personal Finance	3
FCS 15-330 Preschool and Elementary Nutrition Education OR	
FCS 15-234 Nutrition and Diet Behavior	2
FCS 15-410 Parenthood Education	3
FCS 15-412 Family Theory and Application	3
FCS 15-424 Family Resource Management/Consumer Policy Issues	3
FCS 15-526 Independent Living for Special Populations	3

**Professional Requirements**

1-3

FCS 15-413 Child Development Practicum OR	
FCS 15-470 Internship in Family and Consumer Sciences OR	
FCS 15-418 Problems-Child Development and Family Relations (1-3)	

**Interdepartmental Requirements**

CSIS 44-130 Computers and Information Technology	3
Geog 32-102 People and Cultures of the World OR	
Lang 14-100 Level Course	3

\*Students seeking Certified Family Life Educator (CFLE) must take FCS 15-540 and must also take FCS 15-110 as an elective.

**Comprehensive Major in Foods and Nutrition  
(Didactic Program in Dietetics; Restaurant and Food Service  
Management), 70-73 hours: B.S.—No Minor Required**

This program provides two options for persons desiring a career in foods and nutrition. Option I, Didactic Program in Dietetics at Northwest has been placed on probationary accreditation pending review April 22, 2006, by the Commission on Accreditation for Dietetics Education (CADE) of the American Dietetics Association, 120 South Riverside, Plaza, Suite 2000, Chicago, IL 60606, (312)899-0400, ext. 5400. This degree followed by a supervised practice enables one to sit for the examination for registered dietician. Option II provides a strong background in nutrition and food management, with supporting courses in business management for persons desiring a career in restaurant and food service management and is approved by the Missouri Restaurant Association.

General Education requirements must include Bio 04-102/103 General Biology and Lab, Math \*17-114 General Statistics, Chem 24-112/113 General Chemistry and Lab, Soc 35-101 General Sociology and Phil 39-274 Introduction to Ethics.

**\*Required for Option I: Dietetics only.**

**Required Courses****Semester Hours****Family and Consumer Sciences Core**

FCS 15-201 Foundations and Careers in Family and Consumer Sciences	2
FCS 15-401 Issues in Family and Consumer Sciences	3

**Specialization Requirements**

FCS 15-110 Family and Individual Wellness	3
FCS 15-230 Food Science	4
FCS 15-232 Food Service Management	3
FCS 15-234 Nutrition and Diet Behavior	2
FCS 15-322 Consumer Economics and Personal Finance	3
FCS 15-332 Quantity Food Preparation	2
FCS 15-333 Quantity Food Preparation Laboratory	2
FCS 15-334 Community Nutrition	4

**Professional and Interdepartmental Requirements****Option I: Dietetics**

Mgmt 54-313 Principles of Management	3
FCS 15-214 Human Development	3
FCS 15-338 Practicum in Food Service Occupations	1
FCS 15-431 Macronutrients	3
FCS 15-432 Micronutrients	3
(Chem 24-242/243 Organic Chemistry prerequisite)	
FCS 15-434 Medical Nutrition Therapy	5
FCS 15-436 Medical Nutrition Counseling	2
FCS 15-540 The Adult Learner	3
Chem 24-242/243 Organic Chemistry I and Laboratory	4
Bio 04-104 Medical Terminology	3
Bio 04-140 General Microbiology	4
Bio 04-438 Human Physiology	4
Chem 24-362/363 Elementary Biochemistry and Laboratory	4
Geog 32-102 People and Cultures of the World	3

**Option II: Restaurant and Food Service Management**

Acct 51-201 Accounting I	3
*Econ 52-150 General Economics I	3
Fin 53-311 Business Law I	3
Mgmt 54-313 Management Process and Behavior	3
Mgmt 54-314 Human Resource Management	3
Mkt 55-330 Principles of Marketing	3
CSIS 44-317 Management Information Systems	3
FCS 15-150 Creating Aesthetic Environments	3
FCS 15-338 Practicum in Food Service Occupations OR	
FCS 15-439 Field Experience in Food Service Management	1
FCS 15-350 Home Equipment Technology	3
FCS 15-430 Advanced Food Service Management	2
FCS 15-540 The Adult Learner	3
Psych 08-313 Industrial and Organizational Psychology	3
CSIS 44-130 Computers and Information Technology	3
Geog 32-102 People and Cultures of the World	3

\*Cannot be used to fulfill any General Education requirement.

### **Comprehensive Major in Merchandising of Textiles, Apparel and Furnishings, 65-67 hours: B.S.–No Minor Required**

This program prepares individuals for positions such as buyer, fashion coordinator, store and merchandise manager, visual merchandiser, industry fashion expert and consultant, manufacturer sales representative, catalogue coordinator, and interior consultant working with display, model homes, retail (furniture/furnishings and accessories), department stores and decorating shops.

General Education requirements must include Math 17-118 College Algebra, Bio 04-102/103 General Biology and Lab, Chem 24-112/113 General Chemistry and Lab OR Phy 25-110/111 General Physics and Lab, and Econ 52-150 General Economics I.

Required Courses	Semester Hours
<b>Family and Consumer Sciences Core</b>	
FCS 15-201 Foundations and Careers in Family and Consumer Sciences	2
FCS 15-401 Issues in Family and Consumer Sciences	3
<b>Specialization Requirements</b>	
FCS 15-150 Creating Aesthetic Environments	3
FCS 15-160 Apparel Selection	3
FCS 15-266 Textile and Apparel Industries	3
FCS 15-322 Consumer Economics and Personal Finance	3
FCS 15-350 Home Equipment Technology	3
FCS 15-362 Textiles	3
FCS 15-366 Merchandising	3
FCS 15-368 Visual Merchandising	2
FCS 15-435 Internship in Merchandising	1-3
FCS 15-450 Merchandising of Furnishings and Accessories	3
FCS 15-466 Analysis of Sewn Products	3
<b>Professional and Interdepartmental Requirements</b>	
Acct 51-201 Accounting I	3
Acct 51-202 Accounting II	3
Fin 53-311 Business Law I	3
Mgmt 54-313 Principles of Management	3
Mkt 55-330 Principles of Marketing	3
Mkt 55-331 Retailing	3
Mkt 55-332 Promotion	3
Mkt 55-430 Sales and Sales Management	3
CSIS 44-130 Computers and Information Technology	3
Geog 32-102 People and Cultures of the World OR	
Lang 14-100 Level Course	3

### **Comprehensive Major in Family and Consumer Sciences Education, 49-50 hours: B.S.Ed., Secondary Program–No Minor Required (Certifies Birth-Grade 12)**

This program meets Missouri's requirements for a vocational certificate to teach family and consumer sciences birth through grade 12.

General Education requirements must include Bio 04-102/103 General Biology and Lab, Chem 24-112/113 General Chemistry and Lab, and Soc 35-101 General Sociology.

Required Courses	Semester Hours
<b>Family and Consumer Sciences Core</b>	
FCS 15-201 Foundations and Careers in Family and Consumer Sciences	2

FCS 15-401 Issues in Family and Consumer Sciences	3
<b>Specialization Requirements</b>	
FCS 15-110 Family and Individual Wellness	3
FCS 15-150 Creating Aesthetic Environments	3
FCS 15-160 Apparel Selection	3
FCS 15-214 Human Development	3
FCS 15-230 Food Science	4
FCS 15-234 Nutrition and Diet Behavior	2
FCS 15-250 Contemporary Housing	3
FCS 15-310 Family Relationships	3
FCS 15-312 Child Development	3
FCS 15-322 Consumer Economics and Personal Finance	3
FCS 15-410 Parenthood Education	3
FCS 15-424 Family Resource Management/Consumer Policy Issues	3
FCS 15-542 Foundations in Family and Consumer Sciences Education	3
Approved Elective in FCS Education or Education	2-3
<b>Professional and Interdepartmental Requirements</b>	
*Econ 52-150 General Economics I	3

\*Cannot be used to fulfill any General Education requirement.

See page 306 for complete listing of requirements for the B. S. Ed in Secondary Education. (FCS 15-580 Methods in Family and Consumer Sciences and FCS 15-490 Directed Teaching in Vocational Family and Consumer Sciences Education are required specifically for this major.)

## MINORS

### **Minor in Administration of Child Care Programs, 24 hours: B.S. (Not available to Child and Family Studies majors)**

**Advisor: Dr. Jang-Ae Yang**

Required Courses	Semester Hours
FCS 15-212 Administration of Child Care Programs	3
FCS 15-214 Human Development (Psychology majors may substitute an additional FCS elective)	3
FCS 15-310 Family Relationships	3
FCS 15-312 Child Development	3
FCS 15-410 Parenthood Education	3
FCS 15-412 Family Theory and Application	3
FCS 15-413 Child Development Practicum	3
Family and Consumer Sciences elective	3

### **Minor in Family Life and Resource Management, 24 hours: B.S. (Not available to Child and Family Studies majors)**

**Advisor: Dr. Lauren Leach**

Required Courses	Semester Hours
FCS 15-214 Human Development (Psychology majors may substitute an additional FCS elective)	3
FCS 15-310 Family Relationships	3
FCS 15-312 Child Development	3



FCS 15-322 Consumer Economics and Personal Finance	3
FCS 15-410 Parenthood Education	3
FCS 15-412 Family Theory and Application	3
FCS 15-424 Family Resource Management/Consumer Policy Issues	3
Family and Consumer Sciences elective	3

**Minor in Food Service, 24 hours: B.S.  
(Not available to Foods and Nutrition majors)**

**Advisor: Dr. Jenell Ciak**

Required Courses	Semester Hours
FCS 15-230 Food Science	4
FCS 15-232 Food Service Management	3
FCS 15-234 Nutrition and Diet Behavior	2
FCS 15-332 Quantity Food Preparation	2
FCS 15-333 Quantity Food Preparation Laboratory	2
FCS 15-350 Home Equipment Technology	3
FCS 15-430 Advanced Food Service Management OR FCS 15-439 Field Experience in Food Service Management	2
<b>Choose 6 hours from the following courses:</b>	<b>6</b>
Acct 51-201 Accounting I (3)	
Mgmt 54-313 Principles of Management (3)	
Mkt 55-330 Principles of Marketing (3)	
Mgmt 54-314 Human Resource Management (3)	
Fin 53-311 Business Law I	

**Minor in Nutrition, 23-24 hours: B.S.  
(Not available to Foods and Nutrition Majors)**

**Advisor: Dr. Jenell Ciak**

General Education requirements must include Bio 04-102/103 General Biology and Lab or Bio 04-114/115 General Zoology and Lab; Chem 24-112/113 General Chemistry and Lab or Chem 24-114/115 General Chemistry I and Lab.

Required Courses	Semester Hours
FCS 15-230 Food Science	4
FCS 15-234 Nutrition and Diet Behavior	2
FCS 15-334 Community Nutrition	4
FCS 15-431 Macronutrients	3
FCS 15-432 Micronutrients	3
<b>Choose 4 hours from the following courses</b>	<b>4</b>
Chem 24-242/243 Organic Chemistry and Laboratory (4) OR Chem 24-342/343 Organic Chemistry I and Laboratory (4) OR Chem 24-362/363 Elementary Biochemistry and Laboratory (4)	
<b>Choose 3-4 hours from the following courses</b>	<b>3-4</b>
Bio 04-436 Human Anatomy (4)	
Bio 04-438 Human Physiology (4)	
PE 22-254 Anatomy and Physiology (3)	
PE 22-332 Physiology of Exercise (3)	

General Education requirements are listed above. Refer to appropriate course descriptions for prerequisites for science courses.

**Interdisciplinary Minor in Gerontology, 24 hours: B.S.****Advisor: Dr. Jang-Ae Yang**

Required Courses	Semester Hours
FCS 15-316 Gerontology	3
Psych 08-383 Psychology of Aging	3
Com 29-345 Geriatric Communication Disorders OR Com 29-553 Language, Speech and Hearing of the Exceptional Child and Adult	3
PE 22-410 Adapted Physical Education	3
FCS 15-540 The Adult Learner	3
<b>Choose 9 hours from the following courses to total 24 hours</b>	<b>9</b>
**FCS 15-214 Human Development (3) OR Psych 08-333 Developmental Psychology (3)	
FCS 15-526 Independent Living for Special Populations (3)	
Rec 45-243 Introduction to Therapeutic Recreation (3)	
Rec 45-245 Leisure Services and Special Populations (3)	
Rec 45-345 Therapeutic Recreation Program Design (3)	
PE 22-550 Community Health (3)	
Psych 08-223 Abnormal Psychology (3)	
Bio 04-104 Medical Terminology (3)	
Com 29-325 Listening Behavior and Skills (3)	
Com 29-335 Interpersonal Communication (3)	
Com 29-336 Body Language (3)	

\*\*Only majors other than FCS and Psychology may select one of these courses.

**Minor in Family Life Education, 26 hours: B.S.Ed.****(Not available to Family and Consumer Sciences majors)****Advisor: Dr. Frances Shipley**

Certifies Grades 5-9 when completed with the Middle School Major

Required Courses	Semester Hours
FCS 15-160 Apparel Selection	3
FCS 15-214 Human Development	3
FCS 15-234 Nutrition and Diet Behavior	2
FCS 15-310 Family Relationships	3
FCS 15-312 Child Development	3
FCS 15-322 Consumer Economics and Personal Finance	3
FCS 15-410 Parenthood Education	3
FCS 15-542 Foundations in Family and Consumer Sciences Education	3
FCS 15-580 Methods in Family and Consumer Sciences Education	3

This minor may be used as a certification endorsement area for the major in middle school.

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## Course Descriptions

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### Family and Consumer Sciences / 15

#### **110 Family and Individual Wellness (3 hours)**

A study of wellness as a holistic approach to health as it impacts the well-being and lifestyle of families and individuals. (S)

#### **150 Creating Aesthetic Environments (3 hours)**

A study of the principles of design and color in relation to the selection and arrangement of furniture within the home. (F, S)

#### **160 Apparel Selection (3 hours)**

A study of the sociological, psychological, cultural, economic and aesthetic factors influencing clothing and appearance. (F, S)

#### **201 Foundations and Careers in Family and Consumer Sciences (2 hours)**

A study of the systems approach as it relates to the family ecosystem, family systems and the structure of the profession of family and consumer sciences. Professional careers evolving from these systems will be investigated via contacts with professionals through structured observations at their daily jobs. Prerequisite: Completion of one 100- or 200-level course for majors in FCS. (S)

#### **212 Administration of Child Care Programs (3 hours)**

A study of child care models and early childhood programs. Provides an in-depth analysis of program development, program philosophy, operational policies, budgetary process, staffing, record keeping, equipment selection, facility and program administration. Prerequisite: FCS 15-312 or by permission. (F, S)

#### **214 Human Development (3 hours)**

A lifespan approach to learning, which explores the development of the infant and continues through adulthood to death. It integrates the physical, social, cognitive and emotional development of individuals as they function in family structures. (F, S)

#### **230 Food Science (4 hours)**

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 lecture and 4 hours lab per week. (F)

#### **232 Food Service Management (3 hours)**

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. Two hours lecture and 2 hours lab per week. Prerequisite: FCS 15-230 or by permission. (S)

#### **234 Nutrition and Diet Behavior (2 hours)**

An entry-level nutrition course which provides basic nutrition information. Coursework will include a self-assessment of nutrient intake utilizing computer analysis. (F, S)

#### **250 Contemporary Housing (3 hours)**

A study of housing as it impacts on the social, psychological and economical needs of individuals and families. Using a team approach, students will investigate current issues relating to housing in preparation for professional and consumer roles. (F, S)

#### **260 Clothing Construction Techniques (3 hours)**

Basic clothing construction techniques including a laboratory for experimentation and practice with methods and materials. Emphasis on how and why, rather than on garment construction. One hour lecture and 5 hours lab per week. Prerequisite: FCS 15-160 or by permission. (S, alt. years)

#### **266 Textile and Apparel Industries (3 hours)**

History and organization of the textiles and apparel industries. Emphasis on changes occurring throughout the industries and implications these changes have for the merchandising of apparel products at both the production and retail levels. (F)

#### **300 Special Offerings (1-4 hours)**

Course which is offered on only one occasion or variable issue-oriented course which has the content described in the title.

#### **310 Family Relationships (3 hours)**

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)

### **312 Child Development (3 hours)**

A developmental approach to the study of children from birth to 12 years of age, integrating physical, social, emotional, cognitive and creative aspects of the child's total development. Observation and participation with children at the child development center and cooperating schools will be an integral part of the course. (F, S)

### **316 Gerontology (3 hours)**

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 elderly, and develop sensitivity to family and social and economic situations of older people. Prerequisite: Psych 08-103. (F)

### **322 Consumer Economics and Personal Finance (3 hours)**

The role of the consumer in the marketplace, forces influencing consumer demand, and the broad social and economic implications of consumer behavior. (F, S)

### **330 Preschool and Elementary Nutrition Education (2 hours)**

Basic principles of nutrition with focus on nutritional needs of children and on methods of teaching children about foods and health. Designed for preschool and elementary education students; includes practical experience in coordinating nutritional classroom activities for children. (F, S)

### **332 Quantity Food Preparation (2 hours)**

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 place, work simplification and preparation of food. Prerequisite: FCS 15-232. (F, alt. years)

### **333 Quantity Food Preparation Laboratory (2 hours)**

Provides laboratory experience in quantity food preparation. Four hours lab per week. (F, alt. years)

### **334 Community Nutrition (4 hours)**

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: FCS 15-234. (S, alt. years)

### **338 Practicum in Food Service Occupations (1-3 hours)**

Supervised experience in various types of commercial food services such as short order, carry-out service, tray service in rest homes and hospitals, cafeterias, restaurants, and catering services. A job analysis will be an integral part of the work experience. Prerequisites: FCS 15-230 and 232. (F, S, SS)

### **350 Home Equipment Technology (3 hours)**

A study of basic materials, finishes and technology as related to the selection, use and care of appliances, utensils, and table appointments; the basic principles of the use of gas, electricity and technology in the home; and the use of adequate lighting. Two hours lecture and two hours lab per week. (F)

### **362 Textiles (3 hours)**

Introduction to textile fiber, yarn and fabric characteristics. Basic textile terminology, serviceability, coloring and finishing; selection, performance and care of textile products, including hands-on laboratory experiences. Three hours lecture, 1 hour laboratory per week. (F)

### **366 Merchandising (3 hours)**

Principles of merchandising as applied in textiles and apparel retailing. Focuses on procedures for planning, sourcing and controlling inventories for profitable management of textile and apparel product lines. Careers in merchandising will be explored. Prerequisites: FCS 15-266, Mkt 55-331 or by permission. (S)

### **368 Visual Merchandising (2 hours)**

Theories and techniques of merchandise presentation, planning and execution; display, promotion, store layout and evaluation as related to image,

sales, profit and aesthetics. Prerequisite: FCS 15-366 or Mkt 55-330. (F)

#### **401 Issues in Family and Consumer Sciences (3 hours)**

A course designed to provide FCS majors opportunities for investigation of the philosophy of family and consumer sciences, current issues and trends affecting the field, the role of the profession in public policy and research, and the interpretation of professional ethics. The course requires a major paper and presentation. Coursework is designed to facilitate the transition from student to professional practitioner. (F, S)

#### **410 Parenthood Education (3 hours)**

A study of major parenting strategies and the development of competencies necessary for effective parenting and the student's future involvement in parenthood education. Incorporates guidelines for Parents as First Teachers model. Prerequisites: FCS 15-312 or by permission. (F, S)

#### **412 Family Theory and Application (3 hours)**

Analysis of major family theories, including life cycle, structural, family systems, sibling position and others. Theories applied to assessing case studies. Assessment techniques include genogram. Prerequisites: FCS 15-310 or Soc 35-217, or by permission. (F, S)

#### **413 Child Development Practicum (3 hours)**

A team approach to the organization and operation of a preschool facility. This course provides an opportunity for supervised teaching in the child development center, a program enrolling three-, four-, and five-year-old children. Prerequisites: FCS 15-212 and 312. (F, S)

#### **418 Problems–Child Development and Family Relations (1-3 hours)\*\***

Opportunity to investigate, with instructor's guidance, a problem identified in consultation with advisor. Available to second trimester juniors or seniors with 2.70 or above GPA who have completed course offerings in this area. (F, S)

#### **424 Family Resource Management/ Consumer Policy Issues (3 hours)**

Provides an in-depth study of the application of management principles through the use of lifestyle analysis and case studies. Policy issues impacting family resources will be studied. (F, S)

#### **428 Problems–Family Economics and Management (1-3 hours)\*\***

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. (F, S)

#### **430 Advanced Food Service Management (2 hours)**

Designed to assist the student in applying management and marketing principles in food service operations. Emphasis is on planning of food service systems and financial control. Prerequisites: FCS 15-230, 232, 332/333, Mgmt 54-313, Mkt 55-330. (S, alt. years)

#### **431 Macronutrients (3 hours)**

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 24-242/243. (S, alt years)

#### **432 Micronutrients (3 hours)**

Physiological and chemical basis for the micronutrient and food needs of the individual, and the application of basic principles to problems of meeting the micronutrient needs of the individual. Prerequisites: FCS 15-334, Chem 24-242/243, Chem 24-362/363, Bio 04-434. (F, alt. years)

#### **434 Medical Nutrition Therapy (5 hours)**

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: FCS 15-432. (S, alt. years)

#### **435 Internship in Merchandising (1-3 hours)**

Junior or senior students in merchandising of textiles, apparel and furnishings may, with the permission of the merchandising coordinator, enroll in an intern program with an approved business. The training program for the student will be planned by a merchandising faculty member and the approved employer. The student will be required to make periodic reports on individual progress, and upon completion of the internship will write a formal paper on the total experience. Prerequisites: FCS 15-266, 362, 366, 450, Mkt 55-330, 331. (F, S, SS)

**436 Medical Nutrition Counseling (2 hours)**

The basic theories and techniques of counseling as related to medical nutrition therapy. Students will counsel individuals on nutrition. Prerequisites: FCS 15-432. (S, alt. years)

**438 Problems–Food and Nutrition (1-3 hours)\*\***

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. (F, S)

**439 Field Experience in Food Service Management (1-6 hours)**

Advanced work assignments in food service management in business of student's choice. By permission of instructor. (F, S, SS)

**448 Problems–Family and Consumer Sciences Education (1-3 hours)\*\***

Opportunity to investigate, with instructor's guidance, a problem identified in consultation with advisor. Available to second trimester juniors or seniors with 2.70 or above GPA who have completed course offerings in this area. (F, S)

**450 Merchandising of Furnishings and Accessories (3 hours)**

Creative experiences in the use of color, texture, materials, floor plans, elevation and scale models using the principles of design and elements of art. Investigation of the historical background of furniture (Renaissance to Bauhaus and Modern) and future trends as related to present environmental design. Consumer information related to furnishings for homes and apartments. Prerequisites: FCS 15-150, 362. (S)

**458 Problems–Housing and Home Furnishings (1-3 hours)\*\***

Opportunity to investigate, with instructor's guidance, a problem identified in consultation with advisor. Available to second trimester juniors or seniors with 2.70 or above GPA who have completed course offerings in this area. (F, S, SS)

**466 Analysis of Sewn Products (3 hours)**

A study of apparel manufacturing and the decision-making involved in marketing, merchandising and producing apparel. Analysis of textile products with an emphasis on quality, performance and cost considerations in relation to product development. Prerequisites: FCS 15-160 and 362. (S)

**468 Problems–Textiles and Clothing (1-3 hours)\*\***

Opportunity to investigate, with instructor's guidance, a problem identified in consultation with advisor. Available to second trimester juniors or seniors with 2.70 or above GPA who have completed course offerings in this area. (F, S, SS)

**470 Internship in Family and Consumer Sciences (1-6 hours)**

Designed to provide a professional job experience in specialized areas of family and consumer sciences relative to appropriate career goals. Permission of instructor required. (F, S, SS)

**490 Directed Teaching in Vocational Family and Consumer Sciences Education (10 hours)**

Provides a gradual induction into teaching Family and Consumer Sciences. The clinical experience includes observation of teaching/learning, co-teaching with a master teacher and directed teaching under the supervision of a master teacher in FCS. The clinical experience is supervised by a college coordinator, who is fully certified as a vocational family and consumer sciences teacher. Prerequisite: Approval for student teaching by the director of educational field experiences. (F)

**500 Special Offerings (1-4 hours)**

Course which is offered on only one occasion or variable issue-oriented course which has the content described in the title.

**526 Independent Living for Special Populations (3 hours)**

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 disabled and the elderly. Prerequisite: FCS 15-424 or by permission. (F, S)

**540 The Adult Learner (3 hours)**

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. (F)

**542 Foundations in Family and Consumer Sciences Education (3 hours)**

A course designed to develop competency in curriculum construction in family and consumer sciences based on the comprehension and analysis

of the structure of the field of family and consumer sciences, relevant legislation and special needs of the learner. Includes emphasis on vocational youth groups within the curriculum. Prerequisite: Admission to teacher education. (F)

**544 Organization and Administration of Programs in Family and Consumer Sciences Education (3 hours)**

An introduction to work-based learning in FACS. Strategies for delivering work-based education including cooperative education, internship programs and entrepreneurial simulations. Appropriate school-to-work opportunities for each grade level will be explored. Other concepts include meeting diversity needs, marketing FACS, grants as sources of funding and developing a portfolio. Prerequisite: FCS 15-542. (S, alt. years)

**571 Trends in Child Development and Family Relations (1-2 hours)**

A course designed to update teachers in the subject matter area of child development and family relations. Special topic or focus is identified for each offering. (Alt. years)

**572 Trends in Family Economics and Management (1-2 hours)**

A course designed to update teachers in the subject matter area of family economics and management. Special topic or focus is identified for each offering. (Alt. years)

**573 Trends in Foods and Nutrition (1-2 hours)**

A course designed to update teachers in the subject

matter area of foods and nutrition. Special topic or focus is identified for each offering. (Alt. years)

**574 Trends in Family and Consumer Sciences Education (1-2 hours)**

A course designed to update information in the subject matter area of family and consumer sciences education. Special topic or focus is identified for each offering. (Alt. years)

**575 Trends in Housing, Home Furnishings and Equipment (1-2 hours)**

A course designed to update teachers in the subject matter area of home furnishings, housing and equipment. Special topic or focus is identified for each offering. (Alt. years)

**576 Trends in Textiles and Clothing (1-2 hours)**

A course designed to update teachers in the subject matter area of textiles and clothing. Special topic or focus is identified for each offering. (Alt. years)

**580 Methods in Family and Consumer Sciences Education (3 hours)**

A course designed to develop competence in selection, development, and use of instructional techniques, materials and evaluation procedures in family and consumer sciences education. Prerequisite: FCS 15-542. (S)

\*\*Limit of 6 credits of FCS 15-418, 428, 438, 448, 458, and/or 468 for any student.

# Department of Health / 22, Physical Education / 22, Recreation / 45 and Dance / 22

**Chairperson:** Terry Robertson

**Faculty:** Robert J. Boerigter, Loren Butler, David Colt, Jeff Ferguson, Terry Long, Susan Myllykangas, Janet Reusser, Gina Scott, Matt Symonds, Rheba Vetter

**Administrative Appointments:** Richard Alsup, Scott Bostwick, Tracy Cross, Jon Gustafson, Matthew Johnson, Robert Lade, Darin Loe, Susan Punzo-Anderson, Kelly Quinlin, Mark Rosewell, Gene Stienmeyer, Steve Tappmeyer, Mel Tjeerdsma, Darren Vorderbruegge

## Statement of Mission

Opportunities are provided for professional preparation, in accordance with accrediting agency requirements, of highly qualified teachers and leaders in health, physical education and recreation. These programs prepare professionals to facilitate lifelong learning in a world of change; to confront the challenges of tomorrow; and to exhibit leadership skills in order to effect decisions that will encourage the acquisition of health and other behaviors leading to an active, productive and healthy life style.

The department is committed to providing a quality environment which encourages the University community to be active, understand, and maintain or improve, emotional, physical and intellectual well-being.

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 Education 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.

## Advanced Standing Requirement: Physical Education

A student may apply for advanced standing after completing 40 semester hours of credit. The 40 hours must be completed with a grade point average of 2.50. The student must also complete the following courses with grades of "C" or better and a grade point average of 2.50: PE 22-207 Aerobic and Strength Conditioning, 3 hours; PE 22-233 First Aid, CPR and Care of Sports Injuries, 2 hours; PE 22-239 Foundations of Physical Education, 2 hours; and PE 22-254 Anatomy and Physiology, 3 hours.



**Professional Education Admittance:** 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 Admittance to Teacher Education section in the College of Education and Human Services on page 291.

**Physical Education Certification:** Students desiring to be certified to teach in Missouri must complete the Physical Education Core and the courses to complete the Professional Education Requirements listed under the B.S. Ed., Secondary Program (page 306) or the B.S. Ed., Elementary-Secondary Program (page 307) in the Department of Educational Leadership in the College of Education and Human Services.

To be certified to teach physical education in Missouri requires passing the PRAXIS-II. Health and Physical Education students must also take three credit hours of wellness-related coursework (PE 22-110 and 111 are suggested.)

**Physical Education Upper-level Gated Courses:** The Physical Education major must be admitted to the Professional Education Program before admittance into upper-level physical education courses. 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:

- PE 22-433 Senior Seminar in Physical Education
- PE 22-512 Socio-Psychological Aspects of Human Performance
- PE 22-523 Motor Development
- PE 22-537 Assessment in Physical Education
- PE 22-580 Methods in Secondary Physical Education
- PE 22-480 Health Methods in the Secondary School
- Sec Ed 65-520 Techniques of Classroom Management and Discipline

**Physical Education program completion requirements:**

1. Completion of a program approved field experience within a diverse setting for a minimum of 30 clock hours.
2. Completion of an authentic assessment such as a portfolio or Teacher Work Sample demonstrating what the student knows and is able to perform in accordance to state teacher certification standards.
3. Successful completion of the PRAXIS-II examination (Missouri State Teacher Certification).
4. Completion of all exit criteria in order to complete the teacher education program and be recommended for graduation and certification.

**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 45-240 Foundations of Recreation, 3 hours and Rec 45-245 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 courses. Recreation students must also have a “C” or better in three credit hours of wellness-related coursework (PE 22-110 and 111 are suggested.)

## MAJORS

### Major in Physical Education, 39 hours: B.S.Ed., Secondary Program—Minor Required (Certifies Grades K-12)

Required Courses	Semester Hours
PE 22-207 Aerobic and Strength Conditioning	3
PE 22-208 Techniques of Folk, Square and Recreational Dance	3
PE 22-233 First Aid, CPR and Care of Sports Injuries	2
PE 22-238 Health and Physical Education Methods in the Elementary School	3
PE 22-239 Foundations of Physical Education	2
PE 22-254 Anatomy and Physiology	3
PE 22-332 Physiology of Exercise	3
PE 22-336 Basic Biomechanics	3
PE 22-361 Creative Rhythms and Activities 5-9	2
PE 22-362 Creative Rhythms and Activities K-4	3
PE 22-410 Adapted Physical Education	3
PE 22-430 Lifetime Team Activities	3
PE 22-431 Lifetime Individual Activities	3
PE 22-433 Senior Seminar in Physical Education	2
PE 22-512 Socio-Psychological Aspects of Human Performance	3
PE 22-523 Motor Development	3
PE 22-537 Assessment in Physical Education	3

**Total Major Requirements** **47**

**Professional Education Requirements** **35**

PE 22-260 Observation and Practicum I in Physical Education (2)	
PE 22-360 Observation and Practicum II in Physical Education (2)	
PE 22-480 Health Education Methods in the Secondary School (3)	
Read/Sp 65-520 Techniques of Classroom Management and Discipline (2)	
Read/Sp 65-521 Seminar in Classroom Management (1)	
PE 22-580 Methods in Secondary Physical Education (3)	
Psych 08-303 Educational Psychology (Directed General Education)	
Psych 08-322 Adolescent Psychology (2)	
Read/Sp 66-371 Introduction to Special Education (2)	
CSIS 44-130 Computers and Information Technology (3)	
Read/Sp 66-353 Teaching Reading in Content Areas (2)	
Ed 61-461 School and Society (2)	
Ed 61-462 School and Society Seminar (1)	
Ed 61-490 Directed Teaching in the Secondary School (10)	

**Degree Requirements** **3**

Ed 61-569 Multiculturalism in Education (3) OR	
Lang 14-100 level "Communication and Culture" Modern Language course* (3)	

\*Includes Lang 14-151 Introduction to Conversational American Sign Language and Deaf Culture.

### Certification in Physical Education, Grades K-9, B.S.Ed. degree (Not a major or minor)

PE 22-233 First Aid, CPR, and Care of Sports Injuries	2
PE 22-238 Health and Physical Education Methods in the Elementary School	3

PE 22-239 Foundations of Physical Education	2
PE 22-254 Anatomy and Physiology	3
PE 22-332 Physiology of Exercise	3
PE 22-336 Basic Biomechanics	3
PE 22-361 Creative Rhythms and Activities 5-9	2
PE 22-362 Creative Rhythms and Activities K-4	3
PE 22-410 Adapted Physical Education	3
PE 22-433 Senior Seminar in Physical Education	2
PE 22-512 Socio-Psychological Aspects of Human Performance	3
PE 22-523 Motor Development	3
PE 22-537 Assessment in Physical Education	3
Electives from PE 22-207, 208, 430, 431	3

**Total Certification Requirements** 38

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 Curriculum and Instruction.

### **Major in Recreation, 53-63 hours: B.S.—No Minor Required**

Core Requirements	Semester Hours
Rec 45-240 Foundations of Recreation	3
Rec 45-245 Leisure Services and Special Populations	3
Rec 45-340 Recreational Programs	3
Rec 45-434 Senior Seminar in Recreation	3
Rec 45-440 Leisure Resources/Facility Design and Management	3
Rec 45-443 Techniques of Recreation Leadership	3
Rec 45-446 Evaluation of Leisure Services	3
Rec 45-450 Field Experience in Recreation and Park Management OR	
Rec 45-451 Field Experience in Therapeutic Recreation OR	
Rec 45-452 Field Experience in Corporate Recreation/Wellness	3
Rec 45-499 Recreation Internship	6-12
Rec 45-546 Administration of Recreation	3
<b>Total Core Requirements</b>	<b>33-39</b>

### **Setting I—Recreation and Park Management, 21 hours**

Required Courses	
Rec 45-444 Outdoor Recreation/Education	3
Rec 45-533 Recreation Sports Management	3
Rec 45-545 Risk Management	3
<b>Twelve hours selected from the following:</b>	<b>12</b>
PolS 34-203 State and Local Government (3)	
PolS 34-332 Principles of Public Administration (3)	
Acct 51-201 Accounting I (3)	
Mgmt 54-310 Managerial Communications (3)	
Mgmt 54-313 Management Process and Behavior (3)	
Mgmt 54-314 Human Resource Management (3)	
Mkt 55-330 Principles of Marketing (3)	
<b>Total Setting I Requirements</b>	<b>21</b>

**Setting II—Therapeutic Recreation, 24 hours****Required Courses**

Rec 45-243 Introduction to Therapeutic Recreation	3
PE 22-254 Anatomy and Physiology	3
Rec 45-345 Therapeutic Recreation Program Design	3
Rec 45-542 Trends and Issues in Therapeutic Recreation	3
Psych 08-223 Abnormal Psychology	3
FCS 15-214 Human Development	3

**Six hours selected from the following:** 6

PE 22-332 Physiology of Exercise (3)	
PE 22-410 Adapted Physical Education (3)	
PE 22-523 Motor Development (3)	

**Total Setting II Requirements** 24

**Setting III—Corporate Recreation/Wellness, 20-21 hours****Required Courses**

FCS 15-234 Nutrition and Diet Behavior	2
PE 22-254 Anatomy and Physiology (3) OR	
Bio 04-130 Physiology and Anatomy (4)	3-4
PE 22-332 Physiology of Exercise	3
PE 22-336 Basic Biomechanics	3
PE 22-410 Adapted Physical Education	3
PE 22-552 Health Promotion	3

**Three hours selected from the following:** 3

PE 22-532 Exercise Testing, Prescription & Analysis of Cardiac Function (3)	
PE 45-545 Risk Management (3)	
PE 22-550 Community Health (3)	

**Total Setting III Requirements** 20-21

**MINORS****Minor in Coaching, 22 hours****Core Requirements****Semester Hours**

PE 22-254 Anatomy and Physiology	3
PE 22-332 Physiology of Exercise	3
PE 22-334 Administration of Athletics and Coaching Practicum	2
PE 22-336 Basic Biomechanics	3
PE 22-382 Care and Prevention of Athletic Injuries	3
FCS 15-234 Nutrition and Diet Behavior	2

**Total Core Requirements** 16

**Four hours from the following:** 4

PE 22-482 Theory and Fundamentals of Coaching Baseball (2)	
PE 22-483 Theory and Fundamentals of Coaching Track and Field (2)	
PE 22-484 Theory and Fundamentals of Coaching Basketball (2)	
PE 22-485 Theory and Fundamentals of Coaching Football (2)	
PE 22-486 Theory and Fundamentals of Coaching Volleyball (2)	

**Two hours from the following:** 2

PE 22-282 Officiating Baseball and Softball (1)	
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PE 22-283 Officiating Track and Field (1)

PE 22-284 Officiating Basketball (1)

PE 22-285 Officiating Football (1)

PE 22-286 Officiating Volleyball (1)

PE 22-287 Officiating Wrestling (1)

**Total Minor Requirements**

22

**Minor in Health Education, 28 hours: B.S.Ed., Secondary Program (Certifies Grades 9-12)**

Core Requirements	Semester Hours
PE 22-233 First Aid, CPR and Care of Sports Injuries	2
PE 22-254 Anatomy and Physiology	3
PE 22-332 Physiology of Exercise	3
PE 22-550 Community Health	3
PE 22-554 Human Sexuality	3
PE 22-555 Intervention and Strategies for Health Behavior Change	3
Psych 08-212 Personal Adjustment	3
FCS 15-234 Nutrition and Diet Behavior	2
SCGD 68-520 Drug Prevention and Education in Schools	3
<b>Three hours from the following:</b>	3
PE 22-272 Introduction to Safety Education (3)	
PE 22-552 Health Promotion (3)	
Bio 04-376 Basic Ecology (4)	
FCS 15-310 Family Relationships (3)	
<b>Total Minor Requirements</b>	<b>28</b>

**9-12 Certification:** PE 22-480 Health Methods in the Secondary School (3) must be completed as part of the Professional Education Requirements.

**K-9 Certification:** PE 22-238 Health and Physical Education Methods in the Elementary School (3) and PE 22-480 Health Education Methods in the Secondary School (3) must be completed as part of the Professional Education Requirements.

**Minor in Recreation, 24 hours**

Required Courses	Semester Hours
Rec 45-240 Foundations of Recreation	3
Rec 45-245 Leisure Services and Special Populations	3
Rec 45-340 Recreational Programs	3
Rec 45-443 Techniques of Recreation Leadership	3
Rec 45-444 Outdoor Recreation/Education	3
Rec 45-446 Evaluation of Leisure Services	3
Rec 45-450 Field Experience in Parks and Recreation Management OR	
Rec 45-451 Field Experience in Therapeutic Recreation OR	
Rec 45-452 Field Experience in Corporate Recreation/Wellness	3
Rec 45-546 Administration of Recreation	3
<b>Total Minor Requirements</b>	<b>24</b>

**Minor in Dance, 20 hours**

Required Courses	Semester Hours
PE 22-208 Techniques of Folk, Square and Recreational Dance	3
PE 22-254 Anatomy and Physiology	3
*PE 22-262 History of Dance	3
PE 22-311 Dance Techniques	3
PE 22-361 Creative Rhythms and Activities 5-9	2
PE 22-362 Creative Rhythms and Activities K-4	3
<b>Three hours selected from the following:</b>	
PE 22-332 Physiology of Exercise	3
PE 22-336 Basic Biomechanics	3

\*Cannot be used to fulfill any General Education requirement.

**Certification in Driver Education, 12 hours: B.S.Ed., Secondary Program (Not a Minor)**

Required Courses	Semester Hours
PE 22-271 Driver Task Analysis–Driver Education II	3
PE 22-272 Introduction to Safety Education–Driver Education I	3
PE 22-571 Developing Classroom Knowledge–Driver Education III	3
PE 22-572 Developing Vehicle Competencies & Skills–Driver Education IV	3
<b>Total Requirements</b>	<b>12</b>

To be certified in Driver Education, the above hours must be completed in conjunction with an established certifiable Secondary Education (B.S.Ed.) degree program.

## Course Descriptions

### Health /22, Physical Education /22, Recreation / 45, and Dance / 22

#### ACTIVITY COURSES

Only 4 activity credits may count toward the minimum hours required for graduation.

**101 Restricted Activity (1 hour)**  
(F, S)

**106 Weight Training and  
Conditioning (1 hour)**  
(F, S)

**107 Racquetball (1 hour)**  
(F, S, SS)

**112 Jogging (1 hour)**  
(F, S)

**113 Individualized Fitness Program  
(1 hour)**  
(F, S, SS)

**116 Casting and Angling (1 hour)**  
(F, S)

**121 Volleyball (1 hour)**  
(F, S)

**131 Beginning Tennis (1 hour)**  
(F, S, SS)

**134 Badminton (1 hour)**  
(F, S)

**139 Golf (1 hour)**  
(F, S, SS)

**160 Aerobic Dance (1 hour)**  
(F, S, SS)

**161 Jazz Dance (1 hour)**  
(S)

**165 Social Dance (1 hour)**  
(F, S, SS)

**170 Beginning Swimming (1 hour)**  
(F)

**173 Water Aerobics (1 hour)**  
(F, S)

#### VARSITY ATHLETICS

**180 Varsity Cross Country\* (1 hour)**  
(F)

**181 Varsity Tennis\* (1 hour)**  
(S)

**182 Varsity Baseball\* (1 hour)**  
(S)

**183 Varsity Track and Field\* (1 hour)**  
(S)

**184 Varsity Basketball\* (1 hour)**  
(F)

**185 Varsity Football\* (1 hour)**  
(F)

**186 Varsity Volleyball\* (1 hour)**  
(F)

**190 Varsity Softball\* (1 hour)**  
(S)

\*PE 22-180 through 190 Varsity Athletics may each be repeated for 4 total credit hours per course.

### Physical Education / 22

#### 207 Aerobic and Strength Conditioning (3 hours)

Development of advanced skills and methodology in working with cardiovascular aerobic conditioning. (S)

#### 208 Techniques of Folk, Square and Recreational Dance (3 hours)

Development of skills and methodology for folk, square and recreational dance. (F)

**209 Techniques of Modern Dance (1 hour)**

Development of movement techniques as well as knowledge and appreciation of modern dance. Opportunity for creative group studies is offered.

**210 Special Topics in Physical Education Activity (1-3 hours)**

Designed for undergraduate special topic classes, new initiatives and developing courses in physical education that are activity based.

**213 Techniques of Ballet (1 hour)**

Skill development and methodology of ballet.

**214 Techniques of Tap Dance (1 hour)**

Skill development and methodology of tap dance.

**226 Advanced Weight Training (1 hour)**

Advanced development of skills. (F, S)

**227 Techniques of Swimming I (1 hour)**

Development of basic skills in swimming.

**229 Techniques of Gymnastics I (1 hour)**

Development of basic skills in tumbling and apparatus.

**233 First Aid, CPR and Care of Sports Injuries (2 hours)**

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)

**238 Health and Physical Education Methods in the Elementary School (3 hours)**

Methods and activities in health and physical education in the elementary school. (F, S, SS)

**239 Foundations of Physical Education (2 hours)**

An introductory professional course which covers the scope, purpose, history, growth and development, and career assessment of physical education. (F, S)

**254 Anatomy and Physiology (3 hours)**

The structure and function of the skeletal, muscular and circulatory systems. (F, S)

**260 Observation and Practicum I in Physical Education (2 hours)**

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)

**262 History of Dance (3 hours)**

A broad perspective of the evolution of dance from the onset to the present. Meets Fine Arts requirement in the General Education requirements. (F, SS)

**282 Officiating Baseball and Softball (1 hour)**

(S)

**283 Officiating Track and Field (1 hour)**

(S)

**284 Officiating Basketball (1 hour)**

(S)

**285 Officiating Football (1 hour)**

(F)

**286 Officiating Volleyball (1 hour)**

(F)

**287 Officiating Wrestling (1 hour)**

(F)

**311 Dance Techniques (3 hours)**

Designed to be an overview of several genres in the dance discipline. Basic dance technique in the areas of modern, jazz, ballet, and improvisation as a basis for choreography is covered. (F, S)

**332 Physiology of Exercise (3 hours)**

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: PE 22-254. (F, S)

**334 Administration of Athletics and Coaching Practicum (2 hours)**

Principles and procedures for administering athletic programs in the schools. A 30-hour required practicum experience in an athletic setting. (F, S)

**336 Basic Biomechanics (3 hours)**

The study of the principles of human movement: structural and mechanical. Prerequisite: PE 22-254. (F, SS)

**360 Observation and Practicum II in Physical Education (2 hours)**

Intermediate level practicum for K-12 schools requiring 24 hours of observation and field experience.



**361 Creative Rhythms and Activities 5-9 (2 hours)**

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)

**362 Creative Rhythms and Activities K-4 (3 hours)**

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)

**363 Choreography (1 hour)**

Opportunity for creative study in dance based on assigned topics. (F, S)

**382 Care and Prevention of Athletic Injuries (3 hours)**

Covers primary cause of injuries, analysis of preventive measures and care of injuries in relation to type of tissue involved. (F, S)

**410 Adapted Physical Education (3 hours)**

Survey of human physical disabilities combined with adaptive and rehabilitative measures to promote better living for the individual. (F, S, SS)

**430 Lifetime Team Activities (3 hours)**

An introduction to basic skills and teaching techniques of lifetime team activities. (F, S)

**431 Lifetime Individual Activities (3 hours)**

An introduction to basic skills and teaching techniques in lifetime individual activities. (F, S)

**433 Senior Seminar in Physical Education (2 hours)**

A capstone course designed to acquaint the student with current issues and trends in HPERD and to apply principles of philosophy to HPERD. Prerequisites: Admission to teacher education. (F, S)

**437 Practicum: Physical Education in the Elementary School (2 hours)**

Practical experience in the elementary school physical education program. Prerequisites: Admission to teacher education. (F, S)

**439 Independent Study in Physical Education (1-2 hours)**

Individual study, under faculty supervision, of a selected area of interest. May be repeated for a total of three hours. Prerequisite: Permission of advisor and instructor. (F, S, SS)

**469 Independent Study in Dance (1-2 hours)**

Individual study, under faculty supervision, of a selected area of interest. May be repeated for a total of three hours. Prerequisite: Permission of advisor and instructor. (F, S, SS)

**482 Theory and Fundamentals of Coaching Baseball (2 hours)**

(S)

**483 Theory and Fundamentals of Coaching Track and Field (2 hours)**

(S)

**484 Theory and Fundamentals of Coaching Basketball (2 hours)**

(F)

**485 Theory and Fundamentals of Coaching Football (2 hours)**

(F)

**486 Theory and Fundamentals of Coaching Volleyball (2 hours)**

(S)

**510 Special Topics (1-3 hours)**

Designed for special workshops.

**512 Socio-Psychological Aspects of Human Performance (3 hours)**

Analysis of sociological and psychological aspects which influence human performance. Prerequisites: Upper-division standing, admission to teacher education, or permission of instructor. (F, S)

**520 Classroom Management and Motivation in Physical Education (3 hours)**

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.

**523 Motor Development (3 hours)**

The 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 learner. Prerequisite: Admission to teacher education or permission of instructor. (F, S, SS)

**532 Exercise Testing, Prescription & Analysis of Cardiac Function (3 hours)**

A course 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. Prerequisites: PE 22-254, 332 with grade of "B" or better. (F, SS)

**536 Mechanical Analysis of Sports Skills (3 hours)**

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: PE 22-254 and 336 (SS, even years)

**537 Assessment in Physical Education (3 hours)**

A study of the evaluation procedures in physical education, the administration of such procedures and the interpretation of the results of fundamental statistical methods. Prerequisites: Admission to teacher education. (F, S)

**580 Methods in Secondary Physical Education (3 hours)**

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. Prerequisites: Admission to teacher education. (F, S)

**Health / 22****110 Lifetime Wellness (2 hours)**

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 PE 22-111 Lifetime Wellness Laboratory). (F, S, SS)

**111 Lifetime Wellness Laboratory (1 hour)**

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)

**459 Independent Study in Health Education (1-2 hours)**

Individual study under faculty supervision of a selected area of interest. May be repeated for a total of three hours. Prerequisite: Permission of advisor and instructor. (F, S, SS)

**480 Health Education Methods in the Secondary School (3 hours)**

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)

**550 Community Health (3 hours)**

Factors in physical, biological and social environments that influence the nature, extent and programming of health problems for all age groups. Special emphasis on high risk populations such as prenatal and the aging. (S)

**552 Health Promotion (3 hours)**

The study of the organization and implementation of a comprehensive health promotion program. Practical applied experiences are included. (S)

**554 Human Sexuality (3 hours)**

A study of the historical, biological, psychological and sociocultural aspects of sexuality in relation to modern life. (F, S)

**555 Intervention and Strategies for Health Behavior Change (3 hours)**

An applied approach of behavior change. Models to investigate health behavior modification. (S)

**Recreation / 45****110 Climbing Wall (1 hour)**

Provides students the opportunity to develop physical fitness while exploring the new and unique activity of wall rock climbing. Course will stress safety, climbing techniques, belay systems and equipment. Physical fitness concepts of balance, motor coordination and control, strength, flexibility and endurance will be addressed as they relate to climbing wall activities. Life values of trust, motivation, encouragement of self and others, conquering fears, success and self-esteem will be emphasized and presented in harmony with the physical fitness concepts. (F, S, SS)

**124 Noncompetitive and Recreational Games (1 hour)**

Provides students the opportunity to learn a multitude of games designed for all populations. Course will emphasize safety, skill development, strength and conditioning, concentration, motor coordination and teamwork. (F, S)

**130 Canoeing (1 hour)**

Students will have the opportunity to explore canoeing and canoe touring. The course will emphasize safety, canoeing skills, equipment, strength and conditioning, concentration, motor coordination and teamwork. (F, SS)

**131 Kayaking (1 hour)**

Provides students the opportunity to explore kayaking, kayak touring and kayak tricks. Emphasizes safety, kayaking skills, equipment, strength and conditioning, concentration, motor coordination and teamwork. (F, SS)

**132 Watercraft (1 hour)**

Provides students the opportunity to explore sailing, personal watercraft, as well as canoeing and kayaking. Emphasizes safety, skills development, equipment, strength and conditioning, concentration, motor coordination and teamwork. (F, SS)

**140 Archery (1 hour)**

Course will provide students the opportunity to explore target archery, field archery and 3-D archery. The course will emphasize safety, equipment, shooting techniques, strength and conditioning, concentration, motor coordination, control and strategy. (F, SS)

**210 Special Topics in Recreation Activity (1-3 hours)**

Designed for special workshops, special topics, new initiatives and developing courses in recreation that are activity based. (F, S, SS)

**240 Foundations of Recreation (3 hours)**

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 45-245 is recommended. (F, S)

**243 Introduction to Therapeutic Recreation (3 hours)**

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 45-240 and 245, or permission of instructor. (F)

**245 Leisure Services and Special Populations (3 hours)**

Designed to provide an overview of issues related to a variety of subgroups within today's society and how these issues impact the leisure services industry. Groups are based on factors such as race, religion, culture, socio-economic status and disability. Students will explore their own value systems and develop a personal philosophy toward enhancing cultural competence. Prerequisite: Concurrent enrollment recommended in Rec 45-240. (F, S)

**310 Special Topics in Recreation (1-3 hours)**

Designed for special workshops, special topics, new initiatives and developing courses in Recreation at the undergraduate level. (F, S, SS)

**340 Recreational Programs (3 hours)**

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 45-240 and 245 and concurrent enrollment in Rec 45-443 recommended. (F, S)

**345 Therapeutic Recreation Program Design (3 hours)**

Designed to develop the necessary competencies and skills needed to plan and implement appropriate therapeutic recreation programs for diverse special need populations. Prerequisites: Rec 45-243 and 245, or permission of instructor. (S)

**425 Expressive and Creative Programs (3 hours)**

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.

**434 Senior Seminar in Recreation (3 hours)**

A study of the current issues and trends in recreation and internship preparation. (F, S)

**440 Leisure Resources/Facility Design and Management (3 hours)**

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)

**443 Techniques of Recreation Leadership (3 hours)**

Theoretical and practical experiences in recreation leadership. Techniques of group work and progressive leadership applicable to recreational activities, programs and settings. Prerequisites: Rec 45-240 and 245. Concurrent enrollment in Rec 45-340 recommended. (F, S)

**444 Outdoor Recreation/Education (3 hours)**

Exploration of the outdoor activity areas in the recreation and leisure industry. Participate in activities, lead activities, and develop a resource guide of activities associated with outdoor recreation and education. (F)

**446 Evaluation of Leisure Services (3 hours)**

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 45-340 and 443. (F, S)

**449 Independent Study in Recreation (1-3 hours)**

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. Prerequisite: Permission of advisor and instructor. (F, S, SS)

**450 Field Experience in Recreation and Park Management (3 hours)**

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 45-340 and 443, or permission of instructor. (F, S, SS)

**451 Field Experience in Therapeutic Recreation (3 hours)**

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 45-243, 340 and 443, or permission of instructor. (F, S, SS)

**452 Field Experience in Corporate Recreation/Wellness (3 hours)**

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 45-340 and 443, or permission of instructor. (F, S, SS)

**499 Recreation Internship (6-12 hours)**

A gradual induction to professional recreation is provided through a progression of experiences. The experience should include a minimum of 480 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. Prerequisites: Rec 45-446, 546, and Rec 45-450 or 451 or 452. (F, S, SS)

**510 Special Topics in Recreation (1-3 hours)**

Designed for graduate/advanced level special workshops, special topics, new initiatives and developing courses in recreation. (F, S, SS)

**520 Challenge Course Facilitator Training (3 hours)**

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. (F, S)

### **533 Recreation Sports Management (3 hours)**

A study of the objectives and principles in administering an intramural program in the schools. Application of principle to practical situations with field experiences. Prerequisites: Rec 45-340 and 443 or PE 22-239 and 333. (F)

### **540 Group Dynamics (3 hours)**

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, SS)

### **542 Trends and Issues in Therapeutic Recreation (3 hours)**

This course is designed to familiarize students with existing trends in therapeutic recreation programming, to discuss current legal issues, current societal attitudes toward persons with disabilities, trends within the health care delivery system and other current trends and issues related to therapeutic recreation. Prerequisites: Rec 45-345 and 451, or permission of instructor. (S)

### **545 Risk Management (3 hours)**

Designed to give students a basic understanding of their legal responsibilities as recreation and physical activity professionals to provide a safe environment for those they serve, and to develop an understanding of the current legislation, practice standards, and policy, as well as how it may apply to the rights of recreation activity participants, students, special populations, employees and/or co-workers. (S)

### **546 Administration of Recreation (3 hours)**

Organization and administration of recreation services, facilities and resources on the federal, state and local levels. Special attention is given to community recreation organization providers' role and responsibilities for budgeting and personnel management, as well as managing the facilities, activities and special events in the recreation program. Prerequisites: Rec 45-340 and 443. (F, S)

### **562 Assessments, Diagnostics and Treatment Planning in Therapeutic Recreation (3 hours)**

Course will provide an overview of (1) the basic concepts associated with psychometric assess-

ment, (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. (F)

## **Safety/Driver Education / 22**

### **271 Driver Task Analysis – Driver Education II (3 hours)**

An introduction to the task of the driver within the highway transportation system with emphasis on risk perception and management and the decision-making process. Not a learn-to-drive class.

### **272 Introduction to Safety Education – Driver Education I (3 hours)**

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.

### **479 Independent Study in Safety Education (1-2 hours)**

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)

### **571 Developing Classroom Knowledge – Driver Education III (3 hours)**

Learning activities focus on preparing the prospective driver educator to contact Driver Education classroom skills with application to classroom organization, maintaining a learning environment, development instructional modules and conducting learning experiences.

### **572 Developing Vehicle Competencies and Skills – Driver Education IV (3 hours)**

Learning activities focus on preparing the prospective driver educator to conduct activities which develop operational skills for a novice driver. Emphasis on laboratory organization and administration, maintaining a learning environment, developing laboratory instructional modules and conducting learning experiences.

## **SWIMMING AND ARC CERTIFICATION PROGRAM COURSES**

### **172 Basic and Emergency Water Safety (1 hour)**

Successful completion of this course meets the requirements for ARC Basic Water Safety and Emergency Water Safety certification so that the student will know how to respond in an aquatic emergency. It serves as a foundation for further

training in lifeguarding and aquatics courses for individuals in the area of recreation, education, public safety and industry. (F, S)

### **276 Lifeguard Training (2 hours)**

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. (S)

# Department of Psychology / 08, Sociology / 35 and Counseling / 68

**Chairperson:** Douglas N. Dunham

**Faculty:** Jerrold Barnett, Carla Edwards, Alisha Francis, April Haberyan, Rebecca Hendrix, Shelly Hiatt, Richard Hogan, Jacqueline Kibler, Roger Neustadter, Larry Riley, Melinda Russell-Stamp, Kyoung-Ho Shin

## Statement of Mission

The Department of Psychology, Sociology and Counseling seeks to provide excellence in education through teaching, research and community involvement. Our primary goal is to provide a balanced approach emphasizing theory, research and application so that our students are prepared for a diversity of opportunities. Through coursework, research experience and internship opportunities, the department provides a curriculum that is intended to:

1. Provide students with an overview of the disciplines of psychology, sociology and anthropology and to broaden the understanding of individual and group behavior for students in all academic majors;
2. Prepare students for a wide range of careers in fields that value a liberal arts education with an emphasis on the behavioral and/or social sciences;
3. Prepare students for professional or graduate study.

## PSYCHOLOGY DEGREE PROGRAMS

Psychology majors develop good research and writing skills, good problem solving and higher-order thinking ability when it comes to analyzing, synthesizing and evaluating information. Psychology majors find jobs in administrative support, public affairs, education, business, sales, service industries, health, the biological sciences and computer programming. Many work as employment counselors, corrections counselor trainees, interviewers, personnel analysts, probation officers and writers.

Test out is not available for any course offered by the department.

Major in Psychology, 31 hours: B.A.–Minor Required; 37 hours: B.S.–Minor Required

Comprehensive Major in Psychology/Sociology, 55 hours: B.A., B.S.–No Minor Required

Comprehensive Major in Industrial Psychology, 61 hours: B.S.–No Minor Required

Comprehensive Major in Psychology and Biology: B.S., 67-68 hours – individual programs of study are arranged in both departments

Minor in Psychology, 24 hours

Minor in Gerontology, 24 hours – also listed in Department of Family and Consumer Sciences

## Advanced Standing Requirement

For all undergraduate psychology degree programs:

1. Completion of all Directed General Education Courses with a minimum GPA of 2.00;
2. Completion of Psych 08-103 General Psychology, and at least one, but not more than two, other psychology courses; and
3. A 2.00 GPA for any psychology courses taken prior to declaring the major.

## Exit Requirement

All graduating seniors must take the ACAT subject matter test and provide the department with test results prior to graduation approval.

## MAJORS

### Major in Psychology, 37 hours: B.S.—Minor Required

This major can be used either 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.

Directed General Education Course	Semester Hours
Math 17-114 General Statistics	3

#### Required Courses

Psych 08-234 Introduction to Psychological Experimentation	3
Psych 08-334 Experimental Psychology	3
Psych 08-423 History and Systems of Psychology	3
Psych 08-491 Senior Seminar in Psychology	1

Students must select six hours from each of the four categories below for a total of 24 hours:

#### Biological/Cognitive—select six hours from the following list: 6

- Psych 08-310 Cognitive Psychology (3)
- Psych 08-343 Biological Psychology (3)
- Psych 08-344 Drugs, Brain, and Behavior (3)
- Psych 08-443 Advanced Biological Psychology (3)

#### Individual—select six hours from the following list: 6

- Psych 08-201 Psychology in Films (3)
- Psych 08-212 Personal Adjustment (3)
- Psych 08-223 Abnormal Psychology (3)
- Psych 08-335 Psychological Assessment (3)
- Psych 08-363 Psychology of Personality (3)
- Psych 08-438 Principles of Counseling (3)

#### Developmental/Social—select six hours from the following list: 6

- Psych 08-323 Child and Adolescent Psychopathology (3)
- Psych 08-333 Developmental Psychology (3)
- Soc 35-365 Social Psychology (3)
- Psych 08-383 Psychology of Aging (3)
- Psych 08-513 Psychology of Language Development (3)

#### Learning/Applied—select six hours from the following list: 6

- Psych 08-313 Industrial Psychology (3)
- Psych 08-345 Disaster Psychology (3)



Psych 08-353 Psychology of Gender (3)	
Psych 08-373 Learning and Motivation (3)	
Psych 08-495 Field Placement/Internship (3)	
Psych 08-533 Behavior Analysis (3)	
SCGD 68-520 Psychology of Drug Education (3)	
<b>Take three hours of approved psychology electives</b>	<b>3</b>
<b>Total Major Requirements</b>	<b>37</b>

### **Major in Psychology, 31 hours: B.A.—Minor Required**

This major can be used either 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.

<b>Directed General Education Course</b>	<b>Semester Hours</b>
Math 17-114 General Statistics	3

#### **Required Courses**

Psych 08-234 Introduction to Psychological Experimentation	3
Psych 08-334 Experimental Psychology	3
Psych 08-423 History and Systems of Psychology	3
Psych 08-491 Senior Seminar in Psychology	1

**Students must select three to nine hours from each of the four categories below for a total of 21 hours:**

**Biological/Cognitive—select three to nine hours from the following list:** 3-9

Psych 08-310 Cognitive Psychology (3)
Psych 08-343 Biological Psychology (3)
Psych 08-344 Drugs, Brain, and Behavior (3)
Psych 08-443 Advanced Biological Psychology (3)

**Individual—select three to nine hours from the following list:** 3-9

Psych 08-201 Psychology in Films (3)
Psych 08-212 Personal Adjustment (3)
Psych 08-223 Abnormal Psychology (3)
Psych 08-335 Psychological Assessment (3)
Psych 08-363 Psychology of Personality (3)
Psych 08-438 Principles of Counseling (3)

**Developmental/Social—select three to nine hours from the following list:** 3-9

Psych 08-323 Child and Adolescent Psychopathology (3)
Psych 08-333 Developmental Psychology (3)
Soc 35-365 Social Psychology (3)
Psych 08-383 Psychology of Aging (3)
Psych 08-513 Psychology of Language Development (3)

**Learning/Applied—select three to nine hours from the following list:** 3-9

Psych 08-313 Industrial Psychology (3)
Psych 08-345 Disaster Psychology (3)
Psych 08-353 Psychology of Gender (3)
Psych 08-373 Learning and Motivation (3)
Psych 08-495 Field Placement/Internship (3)
Psych 08-533 Behavior Analysis (3)
SCGD 68-520 Psychology of Drug Education (3)

**Total Major Requirements** 31

## **Comprehensive Major in Psychology/Sociology, 55 hours: B.A., B.S.—No Minor Required**

This major consists of psychology and sociology courses specifically designed to provide students with a broad exposure to the behavioral sciences. Students are required to take 27 semester hours from psychology and 27 semester hours from sociology. NOTE: Students choose either the psychology or sociology Senior Seminar course to complete the 55-hour program.

<b>Directed General Education Course</b>	<b>Semester Hours</b>
Math 17-114 General Statistics	3
Soc 35-101 General Sociology	3

### **Required Courses**

Psych 08-234 Introduction to Psychological Experimentation	3
Psych 08-334 Experimental Psychology	3
Psych 08-423 History and Systems of Psychology	3
Soc 35-330 Social Stratification	3
Soc 35-450 Research Methods in Sociology	3
Soc 35-455 Social Theory	3
Psych 08-491 Senior Seminar in Psychology OR Soc 35-491 Senior Seminar in Sociology	1

**Psychology Requirements—select three hours from each of the four categories below for a total of 12 hours:**

**Biological/Cognitive—select three hours from the following list:** 3

- Psych 08-310 Cognitive Psychology (3)
- Psych 08-343 Biological Psychology (3)
- Psych 08-344 Drugs, Brain, and Behavior (3)
- Psych 08-443 Advanced Biological Psychology (3)

**Individual—select three hours from the following list:** 3

- Psych 08-201 Psychology in Films (3)
- Psych 08-212 Personal Adjustment (3)
- Psych 08-223 Abnormal Psychology (3)
- Psych 08-335 Psychological Assessment (3)
- Psych 08-363 Psychology of Personality (3)
- Psych 08-438 Principles of Counseling (3)

**Developmental/Social—select three hours from the following list:** 3

- Psych 08-323 Child and Adolescent Psychopathology (3)
- Psych 08-333 Developmental Psychology (3)
- Psych 08-383 Psychology of Aging (3)
- Psych 08-513 Psychology of Language Development (3)

**Learning/Applied—select three hours from the following list:** 3

- Psych 08-313 Industrial Psychology (3)
- Psych 08-345 Disaster Psychology (3)
- Psych 08-353 Psychology of Gender (3)
- Psych 08-373 Learning and Motivation (3)
- Psych 08-495 Field Placement/Internship (3)
- Psych 08-533 Behavior Analysis (3)
- SCGD 68-520 Psychology of Drug Education (3)

**Take six hours of approved psychology electives** 6

**Sociology Requirements—select three hours from each of the four categories below for a total of 12 hours:**

<b>Society—select three hours from the following list:</b>	<b>3</b>
Soc 35-108 General Anthropology (3)	
Soc 35-365 Social Psychology (3)	
Soc 35-440 Fundamentals of Social Work Practice (3)	
Soc 35-495 Field Placement/Internship (3)	
<b>Family Issues—select three hours from the following list:</b>	<b>3</b>
Soc 35-217 The Family (3)	
Soc 35-318 Social and Cultural Foundations of Personality (3)	
Soc 35-320 Delinquency (3)	
Soc 35-443 Family Problems in Modern Society (3)	
<b>Social Issues—select three hours from the following list:</b>	<b>3</b>
Soc 35-230 Social Problems (3)	
Soc 35-316 Urban Sociology (3)	
Soc 35-323 Deviant Behavior (3)	
Soc 35-337 Race, Ethnic and Gender Issues in Modern Society (3)	
<b>Crime and Society—select three hours from the following list:</b>	<b>3</b>
Soc 35-240 Introduction to Corrections (3)	
Soc 35-360 Residential Treatment Strategies (3)	
Soc 35-370 Community Corrections (3)	
Soc 35-421 Criminology (3)	
<b>Take six hours of approved sociology electives</b>	<b>6</b>
<b>Total Major Requirements</b>	<b>55</b>

### **Comprehensive Major in Industrial Psychology, 61 hours: B.S.—No Minor Required**

This major prepares the student to handle the major functions of an industrial/government personnel officer. The program combines the knowledge of how an organization operates with the knowledge of how the human factor operates, to produce a graduate capable of maximizing the contribution of the employee in achieving the organization's goal.

Students choosing a Comprehensive Major in Industrial Psychology must complete the following major requirements:

<b>Directed General Education Courses</b>	<b>Semester Hours</b>
Psych 08-103 General Psychology	3
Econ 52-150 General Economics I	3
Math 17-114 General Statistics	3
<b>Required Courses</b>	
Acct 51-201 Accounting I	3
Acct 51-202 Accounting II	3
Econ 52-151 General Economics II	3
Fin 53-311 Business Law I	3
Fin 53-324 Fundamentals of Business Finance	3
Math 17-118 College Algebra	3
Mgmt 54-310 Managerial Communication	3
Mgmt 54-313 Principles of Management	3
Mgmt 54-314 Human Resource Management	3
Mgmt 54-320 Negotiations	3

Mkt 55-330 Principles of Marketing	3
Psych 08-223 Abnormal Psychology	3
Psych 08-234 Introduction to Psychological Experimentation	3
Psych 08-310 Cognitive Psychology	3
Psych 08-313 Industrial and Organizational Psychology	3
Psych 08-363 Psychology of Personality	3
Psych 08-373 Learning and Motivation	3
Psych 08-423 History and Systems of Psychology	3
Psych 08-491 Senior Seminar	1
Soc 35-365 Social Psychology	3
Soc 35-450 Research Methods in Sociology	3

**Total Major Requirements** 61

### **Comprehensive Major in Biology/Psychology, 67-68 hours: B.S.—No Minor Required**

This major allows students to complete individual programs of study arranged by advisors in both the Department of Biological Sciences and the Department of Psychology, Sociology and Counseling. While requiring students to complete half their class work as advised by each department, the number of elective hours gives this 67-68 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 departments at an early date to contract a program of study.

<b>Required Courses for Psychology</b>	<b>Semester Hours</b>
Math 17-114 General Statistics	3
Psych 08-234 Introduction to Psychological Experimentation	3
Psych 08-334 Experimental Psychology	3
Psych 08-343 Biological Psychology	3
Psych 08-423 History and Systems of Psychology	3
Psych 08-443 Advanced Biological Psychology	3
Electives as determined and approved by the psychology advisor	12

<b>Required Courses for Biology</b>	
Bio 04-114/115 General Zoology and Laboratory	4
Bio 04-350 Genetics	3
Bio 04-491 Biological Science Seminar	1
Chem 24-114/115 General Chemistry I and Laboratory	4
Chem 24-116/117 General Chemistry II and Laboratory	5
Choose one of the following with advisor approval:	
*Phys 25-110/111 General Physics I and Laboratory (4) OR	
*Phys 25-112/113 General Physics II and Laboratory (4) OR	
Chem 24-242/243 Organic Chemistry and Laboratory (4) OR	
Chem 24-342/343 Organic Chemistry I and Laboratory (5)	4-5
Electives as determined and approved by the biology advisor	16
<b>Total Major Requirements</b>	<b>67-68</b>

\*Cannot be used to also fulfill the General Education requirement.

<b>Directed General Education Courses</b>	
Psych 08-103 General Psychology	3
Math 17-118 College Algebra	3

Bio 04-112/113 General Botany and laboratory	4
Phys 25-110/111 General Physics I and Laboratory (4) OR	
Phys 25-112/113 General Physics II and Laboratory (4)	4

## MINORS

### Minor in Psychology, 24 hours

Required Courses	Semester Hours
Psych 08-234 Introduction to Psychological Experimentation	3
<b>Students must select three hours from each of the four categories below for a total of 12 hours:</b>	
<b>Biological/Cognitive—select six hours from the following list:</b>	3
Psych 08-310 Cognitive Psychology (3)	
Psych 08-343 Biological Psychology (3)	
Psych 08-344 Drugs, Brain, and Behavior (3)	
Psych 08-443 Advanced Biological Psychology (3)	
<b>Individual—select six hours from the following list:</b>	3
Psych 08-201 Psychology in Films (3)	
Psych 08-212 Personal Adjustment (3)	
Psych 08-223 Abnormal Psychology (3)	
Psych 08-335 Psychological Assessment (3)	
Psych 08-363 Psychology of Personality (3)	
Psych 08-438 Principles of Counseling (3)	
<b>Developmental/Social—select six hours from the following list:</b>	3
Psych 08-323 Child and Adolescent Psychopathology (3)	
Psych 08-333 Developmental Psychology (3)	
Soc 35-365 Social Psychology (3)	
Psych 08-383 Psychology of Aging (3)	
Psych 08-513 Psychology of Language Development (3)	
<b>Learning/Applied—select six hours from the following list:</b>	3
Psych 08-313 Industrial Psychology (3)	
Psych 08-345 Disaster Psychology (3)	
Psych 08-353 Psychology of Gender (3)	
Psych 08-373 Learning and Motivation (3)	
Psych 08-495 Field Placement/Internship (3)	
Psych 08-533 Behavior Analysis (3)	
SCGD 68-520 Psychology of Drug Education (3)	
Take nine hours of approved psychology electives	9
<b>Total Minor Requirements</b>	<b>24</b>

### Interdisciplinary Minor in Gerontology, 24 hours: B.A., B.S.

Required Courses	Semester Hours
FCS 15-316 Gerontology	3
FCS 15-540 The Adult Learner	3
Psych 08-383 Psychology of Aging	3
Com 29-345 Geriatric Communication Disorders OR	
Com 29-553 Language, Speech and Hearing of the Exceptional Child and Adult	3
PE 22-410 Adapted Physical Education	3

**Choose 9 hours from the following courses to total 24 hours:**

9

- \*\*FCS 15-214 Human Development (3) OR
- Psych 08-333 Developmental Psychology (3)
- FCS 15-526 Independent Living for Special Populations (3)
- Rec 45-243 Introduction to Therapeutic Recreation (3)
- Rec 45-245 Leisure Services and Special Populations (3)
- Rec 45-345 Therapeutic Recreation Program Design (3)
- PE 22-550 Community Health (3)
- Psych 08-233 Abnormal Psychology (3)
- Bio 04-104 Medical Terminology (3)
- Com 29-325 Listening Behavior and Skills (3)
- Com 29-335 Interpersonal Communication (3)
- Com 29-336 Body Language (3)

\*\*Only majors other than FCS and Psychology may select one of these courses.

## SOCIOLOGY DEGREE PROGRAMS

Sociology primarily is concerned with causally explaining social action. The goals of the sociology curriculum are threefold. First, it provides an essential part of a liberal arts education by showing how to develop and apply the sociological perspective. Such a perspective achieves a better understanding of different people in their various cultural contexts. A second function is to help prepare for possible positions in social service, government, education, business and other occupational contexts calling for sociological understanding and assessment. The third goal is to provide a basis for graduate professional training, preparing for higher level positions in academic, governmental or business-industrial settings.

Anthropology traditionally has been concerned with social and cultural change in preliterate and developing societies, as well as with their language systems, religions, beliefs, artifacts, families, economies, governments and values.

### Advanced Standing Requirement

For all undergraduate sociology degree programs:

1. Completion of all Directed General Education Courses with a minimum GPA of 2.00;
2. Completion of Soc 35-101 General Sociology, and at least one, but not more than three, other sociology courses; and
3. A 2.00 GPA for any sociology courses taken prior to declaring the major.

## MAJORS

### Major in Sociology, 31 hours: B.A.—Minor Required

Directed General Education Course	Semester Hours
Math 17-114 General Statistics	3
<b>Required Courses</b>	
*Soc 35-101 General Sociology	3
Soc 35-217 The Family	3
Soc 35-230 Social Problems	3
Soc 35-330 Social Stratification	3
Soc 35-365 Social Psychology	3
Soc 35-421 Criminology	3

Soc 35-443 Family Problems in Modern Society	3
Soc 35-450 Research Methods in Sociology	3
Soc 35-455 Sociological Theory	3
Soc 35-491 Senior Seminar	1
Soc 35-495 Field Placement/Internship in Sociology/Social Work	3
<b>Total Major Requirements</b>	<b>31</b>

\*Cannot be used to fulfill any General Education requirement.

### **Major in Sociology, 37 hours, B.S.–Minor Required**

Required Courses	Semester Hours
*Soc 35-101 General Sociology	3
Soc 35-230 Social Problems	3
Soc 35-330 Social Stratification	3
Soc 35-365 Social Psychology	3
Soc 35-450 Research Methods in Sociology	3
Soc 35-455 Sociological Theory	3
Soc 35-491 Senior Seminar	1
<b>Total Hours</b>	<b>19</b>

\*Cannot be used to fulfill any General Education requirement.

#### **Emphasis Option I: Social Foundations** 12

Choose four courses:

- Soc 35-318 Social and Cultural Foundations of Personality (3)
- Soc 35-323 Deviant Behavior (3)
- Soc 35-440 Fundamentals of Social Work (3)
- Soc 35-443 Family Problems in Modern Society (3)
- Soc 35-495 Field Placement/Internship Sociology/Social Work/Corrections (3)

#### **Option I Electives chosen from the following courses:** 6

- Soc 35-108 General Anthropology (3)
- Soc 35-217 The Family (3)
- Soc 35-337 Race, Ethnic and Gender Issues in Modern Society (3)
- Soc 35-460 Key Issues in Sociological/Anthropological Theory (3)
- Soc 35-479 Independent Study in Sociology/Anthropology (1-3)

#### **Emphasis Option II: Corrections** 15

Take all the following courses:

- Soc 35-240 Introduction to Corrections (3)
- Soc 35-320 Delinquency (3)
- Soc 35-360 Residential Treatment Strategies (3)
- Soc 35-370 Community Corrections (3)
- Soc 35-421 Criminology (3)

#### **Option II Electives chosen from the following courses:** 3

- Soc 35-316 Urban Sociology (3)
- Soc 35-323 Deviant Behavior (3)
- Soc 35-495 Field Placement/Internship Sociology/Social Work/Corrections (3)

#### **Total Major Requirements** 37

## **Comprehensive Major in Psychology/Sociology, 55 hours: B.A., B.S.—No Minor Required**

This major consists of psychology and sociology courses specifically designed to provide students with a broad exposure to the behavioral sciences. Students are required to take 27 semester hours from psychology and 27 semester hours from sociology. NOTE: Students choose either the psychology or sociology Senior Seminar to complete the 55 hour program. See “Psychology Majors” section for specific course requirements.

## **MINOR**

### **Minor in Sociology, 24 hours**

Required Courses	Semester Hours
*Soc 35-101 General Sociology	3
*Soc 35-108 General Anthropology	3
Soc 35-217 The Family	3
Soc 35-330 Social Stratification	3
Soc 35-365 Social Psychology	3
Soc 35-440 Fundamentals of Social Work Practice	3
Soc 35-455 Sociological Theory	3
Approved electives in sociology (See minor advisor)	3
<b>Total Minor Requirements</b>	<b>24</b>

\*Cannot be used to fulfill any General Education requirement.

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## **Course Descriptions**

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### **Psychology / 08**

#### **103 General Psychology (3 hours)**

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)

#### **201 Psychology in Films (3 hours)**

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: Psych 08-103. (S)

#### **212 Personal Adjustment (3 hours)**

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. Prerequisite: Psych 08-103. (S)

#### **223 Abnormal Psychology (3 hours)**

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: Psych 08-103. (F, S)

#### **234 Introduction to Psychological Experimentation (3 hours)**

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: Psych 08-103 and Math 17-114. (F, S)



**303 Educational Psychology (3 hours)**

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)

**305 Introduction to School Counseling (3 hours)**

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: Psych 08-303 or 234. (S, odd years)

**310 Cognitive Psychology (3 hours)**

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: Psych 08-103 or 303. (S)

**312 Child Psychology (2 hours)**

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. The perspective used includes research, interpersonal and institutional components. Intended for prospective elementary school teachers. Prerequisite: Psych 08-303. (S)

**313 Industrial and Organizational Psychology (3 hours)**

Surveys the important applications of behavioral science to industry. Topics include personnel selection and placement, job attitudes and work motivation, human engineering, drugs and alcohol in industry, etc. Prerequisite: Psych 08-103. (F)

**317 Psychology of Early Adolescence (2 hours)**

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 prospec-

tive middle school teachers. Prerequisite: Psych 08-303. (F, even years)

**322 Adolescent Psychology (2 hours)**

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: Psych 08-303. (F, S)

**323 Child and Adolescent Psychopathology (3 hours)**

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: Psych 08-103 or 303. (F, S)

**333 Developmental Psychology (3 hours)**

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: Psych 08-103 or 303. (F, S, SS)

**334 Experimental Psychology (3 hours)**

Designed to build on concepts and skills covered in Psych 08-234. 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: Psych 08-103, 234, and Math 17-114. (F, S)

**335 Psychological Assessment (3 hours)**

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: Psych 08-103 and 234. (S, even years)

**343 Biological Psychology (3 hours)**

An examination of the relationship between behavior, thinking, and emotion and the underlying biological mechanisms of behavior, including elementary neuroanatomy and neurophysiology. Prerequisites: Psych 08-103 and 234. (S)

**344 Drugs, Brain and Behavior (3 hours)**

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: Psych 08-103 and 234. (F)

**345 Disaster Psychology (3 hours)**

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: Psych 08-103 and 223. (S)

**353 Psychology of Gender (3 hours)**

Explores recent literature and research related to biological and cultural factors influencing the development of gender roles, identities and preferences. Explores stereotypes of masculinity and femininity and how these affect our lives at the personal, social and institutional levels. Psychological aspects of gender communication, conflict resolution, sexual behavior, marriage and family issues are also introduced. Prerequisite: Psych 08-103. (S, odd years)

**363 Psychology of Personality (3 hours)**

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: Psych 08-103. (F, S)

**373 Learning and Motivation (3 hours)**

A systematic review of the facts, concepts and principles which describe classical and operant conditioning, extinction, generalization/discrimination processes and concept learning. Prerequisite: Psych 08-103. (F, S, SS)

**383 Psychology of Aging (3 hours)**

A comprehensive survey of the changes older adults experience in the areas of physical decline, intellectual/cognitive functioning, socioeconomic adjustment and death/dying. Prerequisite: Psych 08-103. (F)

**419 Independent Study (1-3 hours)**

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. Prerequisite: Psych 08-103. (F, S, SS)

**423 History and Systems of Psychology (3 hours)**

An in-depth survey of the philosophical/historical foundations of psychology starting at 500 B.C. Emphasis is placed upon understanding how classic trends of thought created a variety of approaches directed toward the description/explanation of human behavior. Prerequisites: Psych 08-103, 234, and (Psych 08-334 or Soc 35-450). (F, S)

**438 Principles of Counseling (3 hours)**

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: Psych 08-103 and 223. (F)

**443 Advanced Biological Psychology (3 hours)**

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: Psych 08-103, 234, and 343. (F)

**491 Senior Seminar (1 hour)**

Students will apply research and critical thinking skills to evaluate current issues in the field of psychology. Prerequisites: Math 17-114 and successful completion of a minimum of 21 hours in the major, including Psych 08-234, 423 and either Soc 35-450 or Psych 08-334. (F, S)

**495 Field Placement/Internship (3 hours)**

Placement in approved facility offering psychological or human service activities. Prerequisite: Completion of 20 hours in psychology courses and instructor approval. (F, S, SS)

**500 Special Offering (1-4 hours)**

Prerequisites: Psych 08-103 and consent of instructor and department chairperson.

**513 Psychology of Language Development (3 hours)**

A primer course addressing the origins/development of word order in sentences, normal language development trends in children, how meaning is learned/developed, and how cognition assists in/profits from the growth of meaning. Prerequisite: Senior or graduate standing. (S)

**526 Human Behavior (3 hours)**

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. (F)

**533 Behavior Analysis (3 hours)**

An in-depth investigation into the theoretical and applied aspects of the facts, concepts and principles pertaining to classical and operant conditioning/extinction, consideration of the major learning theories as they apply to behavior and consideration of the clinical/counseling implications gained from behavior analysis. Prerequisites: Psych 08-373 and senior or graduate standing.

**School Counseling / 68****520 Drug Prevention and Education in Schools (3 hours)**

Prepares teachers and other individuals to work with prevention planning in schools and communities. Emphasis is on tools necessary for proposing and carrying out a prevention program targeting school age children and their parents. Focuses on best practices that have empirical support in the context of community and school needs. Introduces grant writing and data driven decision making tools. Prerequisite: Senior or graduate standing. (S)

**570 Principles and Practices of the K-12 Guidance Program (3 hours)**

Provides a general orientation to the role and function of the K-12 school counselor. Both the functions of guidance and counseling are examined. Prerequisite: Senior or graduate standing. (SS)

**Sociology / 35****101 General Sociology (3 hours)**

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)

**217 The Family (3 hours)**

The family is studied as a historical and changing social institution. The structure and patterns of the family in modern life are examined. Prerequisite: Soc 35-101. (F, S)

**230 Social Problems (3 hours)**

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 35-101. (F, S)

**240 Introduction to Corrections (3 hours)**

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: Psych 08-103 or Soc 35-101. (F, even years)

**316 Urban Sociology (3 hours)**

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 35-101. (F, odd years)

### **318 Social and Cultural Foundations of Personality (3 hours)**

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 35-101. (F)

### **320 Delinquency (3 hours)**

Theories and causes of delinquency. Examines antisocial behavior and delinquent behavior in gangs. Prerequisite: Soc 35-101. (S)

### **323 Deviant Behavior (3 hours)**

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 35-101. (S)

### **330 Social Stratification (3 hours)**

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 35-101. (F, S)

### **337 Race, Ethnic and Gender Issues in Modern Society (3 hours)**

Designed to develop the student's awareness of his/her own identity in terms of 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. Ethnic minority groups such as African Americans, Hispanic Americans and Asian Americans will be studied. Also theoretical and social issues on women as a minority will be discussed. Prerequisite: Soc 35-101 (F, even years)

### **360 Residential Treatment Strategies (3 hours)**

A complementary course to Community Corrections (Soc 35-370) but with a particular focus on alternative forms of corrections including various

forms of community reintegration, half-way houses, community treatment centers, volunteer programs and graduated release programs. Prerequisites: Psych 08-103, Soc 35-101 (S, odd years)

### **365 Social Psychology (3 hours)**

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 35-101 or Psych 08-103. (F, S, SS)

### **370 Community Corrections (3 hours)**

An in-depth investigation of the role of probation, parole and other methods of community correction services with a special emphasis on their interface with other elements of the criminal justice system. Prerequisite: Soc 35-101. Suggested prerequisite: Soc 35-240 or 320. (S, even years)

### **421 Criminology (3 hours)**

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 35-101. (F)

### **440 Fundamentals of Social Work Practice (3 hours)**

Examines current private and public social welfare policy, organization, function and the historical development in relation to human need. Prerequisite: Soc 35-101. (S)

### **443 Family Problems in Modern Society (3 hours)**

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: Soc 35-217. (S, even years)

### **450 Research Methods in Sociology (3 hours)**

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 35-101 and Math 17-114. (F, S)

**455 Sociological Theory (3 hours)**

A survey of the major theories of society from the classic positions through the present with special emphasis on contemporary theories. Prerequisite: Soc 35-101. (S)

**460 Key Issues in Sociological/Anthropological Theory (3 hours)**

Critical examination of status of theory and research involving key issues of contemporary knowledge in sociology/anthropology. Prerequisite: Soc 35-101 or 108.

**479 Independent Study in Sociology/Anthropology (1-3 hours)**

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 35-101 and a minimum of 13 hours in sociology and consent of the chairperson. (F, S, SS)

**491 Senior Seminar (1 hour)**

This course is designed to help the student better prepare for career choices after graduation. During the last trimester of coursework, the student will use acquired research skills to present information to the class in an effective manner. Improvement of interpersonal communication, organization of information, and skill of presenting ideas and data will be emphasized. Prerequisites: Math 17-114 and successful completion of a minimum of 21 hours in the major, including Soc 35-230, 330, 450, and 455. (F, S, SS)

**495 Field Placement/Internship in Sociology/Social Work/Corrections (3 hours)**

Provides direct contact with helping agencies and paraprofessional experiences. Students will apply knowledge from behavioral science courses. Prerequisites: Soc 35-101, completion of 15 hours in sociology courses and instructor approval. (F, S, SS)

**ANTHROPOLOGY**

**108 General Anthropology (3 hours)**

A survey course covering the origins of man, ancient man and prehistoric culture; faces of man and cultural capacity; historical and contemporary pre-literate culture, including housing and handicrafts, marriage and kinship, status and role, property and government, religion and the supernatural. (S)

**217 The Family (3 hours)**

May be taken for credit as either sociology or anthropology, but not for both. See Soc 35-217.

**318 Social and Cultural Foundations of Personality (3 hours)**

Stages of personality change in different cultures from infancy to old age. Cross-cultural research on the bearings of social structure on personality and identity formation. Comparative analysis of problems of socialization, enculturation and acculturation for the young and aging. Prerequisite: Soc 35-101 or 108. (F)

**460 Key Issues in Sociological/Anthropological Theory (3 hours)**

May be taken for credit as either sociology or anthropology, but not for both. See Soc 35-460.

**479 Independent Study in Sociology/Anthropology (1-3 hours)**

May be taken for credit as either sociology or anthropology, but not for both. See Soc 35-479.

## Vocational Education

Specialized Vocational Education courses are available through programs in Agriculture, Business Education, and Family and Consumer Sciences Education. See these departmental listings. Nancy Zeliff coordinates the program.

### Vocational Education / 02

#### **193 FAA Ground School with Flight (3 hours)**

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)

#### **195 Private Pilot Certification (2 hours)**

This course is a continuation of Voc Ed 02-193, with flight training to complete flying requirements for the Federal Aviation private pilot's license. Prerequisite: Voc Ed 02-193 or equivalent. (Cost depends upon aircraft used.) (F, S, SS)

#### **500 Special Offerings (1-4 hours)**

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)

#### **501 History and Philosophy of Career Education (2 hours)**

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.

#### **503 Implementing Career Education (2 hours)**

The establishment and operation of career education programs including organization, administration, supervision, curricula and evaluation.

#### **505 Assessment in Career Education (2 hours)**

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.

#### **506 Career Education Curriculum (2 hours)**

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.

#### **508 Guidance in Career Education (2 hours)**

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.

#### **510 Coordination of Cooperative Education (2 hours)**

Procedures for organizing, delivering and supervising cooperative education programs.

#### **515 Instructional Methods for Career Education (2 hours)**

Studies scope and sequence of subject matter in career education. Problems, methods, techniques, motivation and evaluation of student achievement will be discussed.

#### **520 Special Investigations in Career Education (1-3 hours)**

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.

#### **540 The Adult Learner (3 hours)**

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.

# **The Missouri Academy of Science, Mathematics and Computing**

*Dr. Cleopas T. Samudzi, Dean*

# The Missouri Academy of Science, Mathematics and Computing

**Dean:** Cleopas T. Samudzi

The Missouri Academy of Science, Mathematics and Computing (Missouri Academy) is a residential program for high school-aged students who are academically gifted in science and mathematics, and have completed their sophomore year (or equivalent) in high school. Students enrolled in this two-year program live with their peers on the campus of Northwest Missouri State University in their own residence hall and complete a challenging program of college coursework taught by Northwest Missouri State University professors. This program replaces the last two years of traditional high school. At graduation, students receive an Associate of Science degree as well as a high school diploma. This program has been extremely 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, mathematics and computing, 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 university clubs and organizations 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, the University of Missouri-Rolla, 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, Caltech, University of Iowa, and so forth.

Missouri residents accepted to the Missouri Academy receive a scholarship covering tuition for two years. 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 50% to 100% of the room and board costs.

Applicants to the Missouri Academy must be currently enrolled in the tenth grade or equivalent. A minimum ACT or PLAN composite score of 23 and a mathematics score of 24, or a minimum SAT of PSAT composite score of 1100, with 600 in mathematics is required for eligibility. Geometry and Algebra II must be completed prior to beginning the first trimester at the Missouri Academy. Admission decision is based on: 1) cumulative GPA in the 8th, 9th and 10th grades, 2) standardized test scores, 3) evaluations from high school teachers, 4) student essays, and 5) mathematics/science career interests as well as student/family commitment.

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](mailto:MASMC@nwmissouri.edu) or on its website at [www.nwmissouri.edu/MASMC](http://www.nwmissouri.edu/MASMC).



# The Missouri Academy of Science, Mathematics and Computing / 81

**Director of Academic Affairs:** Diana Schmitz

## Statement of Mission

The Missouri Academy of Science, Mathematics and Computing is an innovative residential high school program at Northwest Missouri State University. Students selected for their high academic performance enroll in quality education provided by professors at the university. The driving force of the Missouri Academy is to prepare its graduates to succeed in science, mathematics and technology programs in any high education institution.

The Missouri Academy community is committed to student development and instills the principles of integrity and quality within its students, thus preparing them to contribute to society in ethical and meaningful ways. Upon successful completion of the program, these students earn a high school diploma and an Associate of Science degree.

## 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.

## Associate of Science in Science and Mathematics

Science	Semester Hours
<b>Biological/Life Sciences</b>	
Bio 04-102/103 General Biology and Laboratory	4
Bio 04-140 General Microbiology	4
<b>Chemical Sciences</b>	
Chem 24-114/115 General Chemistry I and Laboratory	4
Chem 24-116/117 General Chemistry II and Laboratory	5
<b>Physical Sciences</b>	
Phys 25-120/121 Fundamentals of Classical Physics I and Laboratory	5
Phys 25-230/231 Fundamentals of Classical Physics II and Laboratory	5
<b>Mathematics</b>	
Math 17-117 Precalculus	4
Math 17-120 Calculus I	4
Math 17-121 Calculus II	4
<b>Computing</b>	
CSIS 44-140 Visual Basic Application Programming	3
CSIS 44-141 Computer Programming I	3
<b>English/Communication</b>	
Eng 10-111 Composition	3
Eng 10-112 Composition	3
English Literature Course (Eng 10-221 - 10-499)	3
Com 29-102 Fundamentals of Oral Communication	3

**Social Science and Humanities**

Hist 33-155 America—A Historical Survey	3
PolS 34-102 Introduction to American Government and Politics	3
Humanities approved elective*	3

**Seminar/Colloquium**

MOAC 81-102 Seminar: You and Your Community	1
MOAC 81-103 Colloquium	1

**Total Degree Requirements** **68**

\*Humanities elective must be approved by the Missouri Academy Director of Academic Affairs.

For Missouri Academy students to graduate from the Missouri Academy in addition to the above requirements, they must: 1) must pass the U.S. and Missouri Constitution test, and 2) maintain a minimum cumulative GPA of 2.50 on a 4.0 scale.

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## Course Descriptions

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### **Missouri Academy of Science, Mathematics and Computing / 81**

#### **102 Seminar on You and Your Community (1 credit hour)**

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.

#### **103 Colloquium (1 credit hour)**

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 81-102.

# Appendix

- Facilities
- Governance
- Personnel
- Faculty
- Emeritus Faculty
- Map of the Campus

# 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, other administrative and student services offices, and facilities for the Department of Family and Consumer Sciences.

## **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.

## **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 the departments of Accounting, Economics and Finance; Computer Science/Information Systems; English; Marketing and Management; and Psychology, Sociology and Counseling.

## **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 the Departments of Biological Sciences; Chemistry and Physics; Geology and Geography; and Mathematics and Statistics. The entire building was renovated in 2000-2001 resulting in a state-of-the-art facility.

## **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 departments of Curriculum and Instruction, and Educational Leadership, as well as the Horace Mann School for elementary education.

### **Wells Hall**

Dedicated in 1939 as the University library, Wells Hall is named for the University's first librarian, Edwin C. Wells. Since the opening of Owens Library, Wells houses the departments of Communication, Theatre and Languages, and Mass Communication, as well as KZLX-LP-FM, KXCV/KRNW-FM, KNWT-TV, classrooms, the English as a Second Language Program, the *Northwest Missourian* student newspaper, and *Tower* yearbook.

### **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 offices for the Department of Art and the Department of 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.

### **Performing Arts Center**

Located on the southwest side of campus, the Performing Arts Center opened in 1984. The auditorium is named after Mary Casteel Linn, a former University Regent and dedicated patron of the arts. The 1099-seat theater can accommodate a full symphony orchestra, or it can be scaled down for more intimate productions. The Performing Arts Center also houses a "black box" theater as well as the offices and production shops of University Theatre.

### **Thompson-Ringold Building**

The building, located north of Wells Hall, was built in 1931 and during the years it housed the Industrial Arts programs; Kenneth Thompson and Howard Ringold were long-time faculty of that department. Now it houses the Department of History, Humanities, Philosophy and Political Science, the Mail/Copy Center and Adult Education Literacy.

### **Valk Agriculture Professions 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 Agriculture 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.

### **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 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.

## 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.

## 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 A, B and C** were completed in 2004 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.

## 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, coffee bar, 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.

### **Ryland Milner Complex**

Named for long-time coach, athletic director and alumnus Ryland Milner, the Complex contains two gymnasiums, an aquatic center, 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. 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 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.

**The Robert P. Foster Aquatic Center**, opened in 1981, is named for the seventh University president. Designed as an instructional facility for water safety programs, it is also used for recreational purposes. The Foster Aquatic Center has an Olympic and NCAA standard-sized pool, dressing rooms, equipment areas and spectator seating. The facility was renovated in 2002-2003.

**Bearcat Stadium** is a natural-turf 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, ten suites, and an upper media/coaching area and filming tower. A new scoreboard was 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.

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 for the Bearcat softball team, the dirt infield is made from aqualime, a textured soil that allows moisture to go through to the ground.

### **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 Agriculture 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 Department of Agriculture.

### **Alfred McKemy Center for Lifelong Learning**

Located north of the Garrett-Strong Science Building, this structure was completed in 1977 and named after a former member and president of the Board of Regents. Completely renovated in 1999, the facility provides offices for the Outreach Education, the Regional Professional Development Center, the Missouri Assessment Program, the Alternative Certification Program and the Small Business Development Center. These programs are focused primarily on constituencies at varying distances from campus. Contained within are one distance learning classroom and one room for teleconferencing.

### **Mabel Cook Admissions 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.

### **Advancement Complex**

Under the umbrella of University Advancement, two facilities serve members of the Northwest family.

**Alumni House.** Located on College Avenue, the Federal-style structure is owned by the non-profit Northwest Foundation, and houses the offices of Alumni Relations. This former private residence is the social center for alumni and friends of Northwest.

**Development Center.** In 1999, the property directly east of the Alumni House was acquired by the Northwest Foundation and houses the Development Office and Northwest Foundation, Inc.

### **Thomas J. 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.

### **Support Services Complex**

Located north of the High Rises, Tower Suites and The Station are five structures providing operation space for the majority of the campus physical plant services.

The **Facilities Services Building** built in 2006-2007 is designed to meet the unique needs of the environmental trades, key and sign shops, construction and transportation. It also houses the offices of Environmental Services, Campus Safety, Custodial Services, Facilities Planning, Health and Safety, Purchasing; Mail/Copy Center, and regional office of the Department of Natural Resources.

Three **Landscape Services Buildings** erected between 2000 and 2005 include an offices/shops building, a greenhouse and equipment storage hoop shed.

The **Materials Distribution Center** built in 2002, is the warehouse facility that houses Central Receiving, Central Stores, the moving crew, and is the site for the University's surplus auctions.

### **University Health Center**

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 is being added to house the Counseling Center and University Health programs in the same facility.

### **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, 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.

# 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.

**The President's Cabinet.** The Cabinet advises the President and assists in planning, developing, evaluating and recommending to the Regents policy decisions for the operation of the University. The Cabinet is composed of the President, the Provost, the Vice President for Finance and Support Services, the Vice President for Student Affairs, the Vice President for Information Systems, the Vice President for Institutional Advancement, the Vice President for University Relations, the Athletic Director and the Human Resources Director.

**Strategic Planning Council.** The Strategic Planning Council (SPC) identifies long-range goals for the University, using the institution's mission and vision, as well as current environmental scans. The SPC is advisory to the President's Cabinet and the Board of Regents. Membership is drawn from key governance, student, faculty and staff organizations on campus.

**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."

**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.

**Council on Teacher Education.** The Council is composed of one member from each college's designated teacher education faculty with two teacher education faculty members from the College of Education and Human Services, 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.

**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.

**University Committees.** The committees organization provides faculty, students and support and administrative staffs an opportunity to participate in the affairs of the University. The President's Cabinet, in cooperation with the Faculty Senate, coordinates the University committee assignments.

**Board of Regents**

Rita B. Hanks . . . . .	Smithville
President	
Rollie Stadlman . . . . .	Chillicothe
Vice President	
Douglas Sutton . . . . .	Maryville
Lydia C. Hurst . . . . .	Tarkio
Don Schneider . . . . .	Wildwood
Rachelle Brown . . . . .	Platte City
James W. "Bill" Loch . . . . .	Maryville
Aaron Brown . . . . .	Camdenton
Student Representative (non-voting)	

**Northwest Missouri State University Presidents**

Dean L. Hubbard . . . . .	1984-
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

## Executive Personnel

President	Dean L. Hubbard, Ph.D.
Provost	Kichoon Yang, Ph.D.
Vice President for Finance and Support Services	Ray Courter, M.B.A.
Vice President for Information Systems	Jon T. Rickman, Ph.D.
Vice President for Institutional Advancement	Orrie Covert, M.A.
Interim Vice President for Student Affairs	Gerald W. Wilmes, M.D.
Vice President for University Relations	Mary Ann Lowary, B.A.
Director, Athletics/HPERD	Robert Boerigter, Ph.D.
Director of Human Resources Management	Mary Throener, M.B.A., SPHR

## Academic Administrative Officers

Dean, College of Arts and Sciences	Charles McAdams, Ed.D.
Dean, College of Education and Human Services	Max Ruhl, Ed.D.
Dean, Booth College of Business and Professional Studies	Thomas Billesbach, Ph.D.
Dean of the Graduate School	Frances Shipley, Ph.D.
Director of Libraries	Robert Frizzell, M.S.
Dean, Enrollment Management	Beverly S. Schenkel, M.B.A.
Dean, The Missouri Academy	Cleopas Samudzi, Ph.D.
Director, Assessment, Information and Analysis	Dave Oehler, Ph.D.
Director, Center for Information Technology in Education	Roger VonHolzen, Ed.D.

## Administrative Officers

Administrative Assistant to the President/Board Secretary	Claudia Beacom, B.S.
Advisement Assistance and Resource Office	Deborah Toomey, M.B.A.
Alumni Relations	Steve Sutton, M.S.Ed.
Auxiliary Services	Mark Hetzler, M.S.
Broadcast Services	Sharon Bonnett, B.S.
Bursar	Terri Christensen, B.S.
Campus Safety	Clarence Green, B.S.
Career Services	Joan Schneider, B.S.
Controller	Dan Edmonds, B.S.
Counseling Center	Elizabeth P. Wood, Ph.D.
Dean of Students	Jackie Elliott, A.B.D.
Development	Greg Reichert, B.S.
Environmental Services	Tom Hall, Ed.S.
Scholarships and Financial Assistance	Del Morley, M.S.Ed.
Health Center	Gerald W. Wilmes, M.D.
Northwest Regional Professional Development Center	Rebecca Baldwin, M.S. Ed.
Purchasing	Ann Martin, B.S.
Registrar	Linda Girard, M.B.A.
Residential Life	Matthew Baker, M.S. Ed.
Small Business Development Center	James Hunt, M.S.
Talent Development Center	Leslie Galbreath, M.S. Ed.

# Faculty

**Adkins, Joni** (2001)

Instructor—Computer Science/Information Systems

M.B.A.—Northwest Missouri State University

**Alexander, Kristina** (2003)

Assistant Professor—Educational Leadership

Ed.D.—University of Missouri-Columbia

**Andrews, Jane** (2004)

Assistant Professor—Curriculum and Instruction

Ed.D.—University of Nebraska-Lincoln

**Aronson, Rebecca** (2003)

Assistant Professor—English

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Associate Professor—Accounting, Economics and Finance

J.D.—University of Missouri

**Barnett, Jerrold** (1983)

Professor—Psychology, Sociology and Counseling

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**Barr, Rod** (2003)

Instructor—Agriculture

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**Baudino, Frank** (1994)

Instructor—Library

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**Belcher, Rebecca** (2003)

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Ph.D.—New Mexico State University

**Bellamy, Michael** (1999)

Assistant Professor—Chemistry and Physics

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**Benson, Christine** (1997)

Assistant Professor—Mathematics and Statistics

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**Benson, Joel D.** (1987)

Professor—History, Humanities, Philosophy and Political Science

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**Bickford, Angela** (2000)

Instructor—Chemistry and Physics

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**Billesbach, Thomas** (1994)

Professor—Marketing and Management

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**Bradley, Jeff** (1990)

Instructor—Geology and Geography

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**Brandon-Falcone, Janice** (1991)

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**Brown, Harold** (1973)

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**Buerman, Margaret** (1999)

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**Butler, Loren** (2000)

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Ph.D.—University of Arkansas

**Chandler, Wayne** (2001)

Assistant Professor—English  
Ph.D.—University of Alabama

**Ciak, Jenell** (1986)

Assistant Professor—Family and Consumer Sciences  
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**Clark, Judy** (1997)

Instructor—Computer Science/Information Systems  
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Ph.D.—University of Arkansas-Fayetteville

**Coalter, Terry** (2000)

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**Collier, Ben** (1981)

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**Colt, David E.** (1981)

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**Dewhirst, Robert** (1983)

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**DeYoung, Ron C.** (1984)

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**Dieringer, Gregg** (2002)

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**Donnelly, Gerard** (1999)

Associate Professor—Mass Communication  
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**Drew, Margaret** (1996)

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**Drews, Patricia** (1999)

Associate Professor—Geology and Geography  
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**Dunham, Douglas** (1995)

Associate Professor—Psychology, Sociology and Counseling  
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**Dunnell, Rebecca** (2002)

Assistant Professor—Music  
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**Durbin, Lori** (1990)

Instructor—Communication, Theatre and Languages  
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**Easterla, David** (1965)

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**Euler, Russell** (1982)

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**Fink, Kurtis** (1985)

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Statistics  
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**Fisher, John** (2002)

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Theatre and Languages  
Ph.D.—University of Alberta-Edmonton

**Foley, Nancy** (2000)

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**Freeman, Virgil** (2003)

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Ed.D.—University of Arkansas

**Fridell, Max** (2003)

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**Frucht, Richard** (1980)

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**Funston, Chanda** (1988)

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**Gallaher, John** (2003)

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**Gates, Deborah** (2003)

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**Haile, Brian** (1997)

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**Heintz, Christina** (1985)

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**Hobbs, Michael** (1993)

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**Islam, Rafiq** (1997)

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**Jones, Kenneth** (2003)

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Ph.D.—Purdue University

**Jones, Paul D.** (1966)

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**Jones, Rego** (2003)

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**Kelly, Alfred** (1975)

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**Kenkel, Cindy** (1998)

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and Counseling  
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**King, Terry** (1981)

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Music  
M.A.—Stephen F. Austin State University

**Kondrashov, Peter** (2001)

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Ph.D.—Paleontological Institute of the  
Russian Academy of Sciences

**Kramer, Ernest** (1985)

Professor—Music  
Ph.D.—University of North Texas

**Kreizinger, Joseph** (2001)

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Theatre and Languages  
Ph.D.—University of Nebraska

**Kukkee, Laura** (2004)

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M.F.A.—Kent State

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**Lamer, Fred C.** (1982)

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M.A.—Wayne State University

**Lamer, Jacqueline** (2001)

Instructor—Mass Communication  
M.P.M.—Keller Graduate School of  
Management

**Lanier, Brian** (2002)

Assistant Professor—Music  
Ph.D.—Florida State University

**Larson, J. Arley** (1987)

Associate Professor—Agriculture  
Ph.D.—University of Nebraska

**Le, Yafen** (2005)

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Geography  
Ph.D.—University of Georgia

**Leach, Lauren** (1998)

Assistant Professor—Family and Consumer  
Sciences  
Ph.D.—University of Illinois

**Lim, Chi Lo** (1999)

Assistant Professor—Marketing and  
Management  
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University

- Litte, Bruce** (1981)  
Associate Professor—English  
Ph.D.—University of Kansas
- Lockwood, William** (1999)  
Assistant Professor—Educational  
Leadership  
Ed. D.—University of South Dakota
- Long, Terry** (2000)  
Assistant Professor—Health, Physical  
Education, Recreation and Dance  
Ph.D.—University of Utah
- Loomis, Jeffrey** (1990)  
Professor—English  
Ph.D.—University of North Carolina
- Lovelace, Terry** (2003)  
Assistant Professor—Curriculum and  
Instruction  
Ph.D.—University of Georgia
- Lucido, Patricia** (1979)  
Professor—Chemistry and Physics  
Ph.D.—University of Missouri-Kansas City
- Lucido, Phillip** (1971)  
Professor—Biological Sciences  
Ph.D.—Kansas State University
- Ludwig, Stephen** (2001)  
Assistant Professor—Accounting,  
Economics and Finance  
Ph.D.—University of Arkansas
- Malkawi, Ahmed** (2000)  
Assistant Professor—Chemistry and Physics  
Ph.D.—University of Maine-Orono
- Malm, Dennis** (1987)  
Associate Professor—Mathematics and  
Statistics  
Ph.D.—University of Utah
- Manos, Leah** (2002)  
Assistant Professor—Geology and  
Geography  
M.S.—University of Tennessee
- Mardis, Lori** (2001)  
Instructor—Library  
M.L.S.—University of Michigan
- Marta, Janet** (1999)  
Assistant Professor—Marketing and  
Management  
Ph.D.—Old Dominion University
- Mayer, Nancy** (2000)  
Assistant Professor—English  
Ph.D.—University of Wisconsin-Milwaukee
- McAdams, Charles** (2004)  
Professor—Music  
Ed.D.—University of Illinois-Urbana-  
Champaign
- McCall, Carolyn** (1986)  
Professor—Curriculum and Instruction  
Ph.D.—University of Nebraska-Lincoln
- McDonald, Gary** (1971)  
Professor—Computer Science/  
Information Systems  
Ph.D.—University of Texas-Austin
- McDonald, Merry** (1971)  
Professor—Computer Science/  
Information Systems  
Ph.D.—University of Texas-Austin
- McLaughlin, David** (1978)  
Associate Professor—History, Humanities,  
Philosophy and Political Science  
Ph.D.—University of Nebraska-Lincoln
- McLaughlin, J. Patrick** (1978)  
Associate Professor—Accounting,  
Economics and Finance  
J.D.—University of Missouri-Kansas City
- Mebane, Carla** (2004)  
Intern Supervisor/Instructor—KCMSD  
M.Ed.—Lesley University
- Messner, Phillip** (1996)  
Professor—Educational Leadership  
Ed.D.—University of Missouri

- Morris, Mike** (2001)  
Assistant Professor—Communication,  
Theatre and Languages  
M.F.A.—Southern Illinois University
- Muhsam, Armin** (2000)  
Assistant Professor—Art  
M.F.A.—Montana State University
- Myllykangas, Susan** (2005)  
Assistant Professor—Health, Physical  
Education, Recreation and Dance  
Ph.D.—Indiana University
- Naughton, Blake** (2004)  
Assistant Professor—Marketing and  
Management  
Ph.D.—Stanford University
- Neal, Connie** (2005)  
Instructor—Family and Consumer Sciences  
M.A.—University of Missouri-Kansas City
- Neustadter, Roger** (1992)  
Professor—Psychology, Sociology and  
Counseling  
Ph.D.—Purdue University
- Northup, Michael** (1999)  
Instructor—Accounting, Economics and  
Finance  
M.S.—University of Missouri-Kansas City
- Oehler, Erin** (2001)  
Part-time Instructor—Horace Mann  
B.S.—Northwest Missouri State University
- Offutt, Jason** (2005)  
Instructor—Mass Communication  
M.A.—Central Missouri State University
- Olson, Anthony** (2000)  
Assistant Professor—Music  
D.M.A.—University of Southern California
- Oludaja, Bayo** (1990)  
Associate Professor—Communication  
Theatre and Languages  
Ph.D.—University of Kansas
- Padgitt, Dennis** (1967)  
Professor—Agriculture  
Ph.D.—University of Missouri
- Padgitt, Janette** (2001)  
Instructor—Biological Sciences  
M.S.—University of Kansas
- Park, Sarah** (2005)  
Instructor—Library  
M.S.—University of Illinois-Urbana-  
Champaign
- Parsons, Vanessa** (2004)  
Instructor—Curriculum and Instruction  
B.A.—Northwest Missouri State University
- Patrick-Lanier, Cecily** (2002)  
Instructor—Horace Mann  
B.M.—University of Akron
- Patton, Jamie** (2003)  
Assistant Professor—Agriculture  
Ph.D.—Oklahoma State University
- Phillips, Lisa** (2004)  
Instructor—Marketing and Management  
M.A.—Central Missouri State University
- Phillips, Shelia** (2001)  
Assistant Professor—Music  
D.M.A.—University of Missouri-Kansas  
City
- Piveral, Joyce** (2000)  
Assistant Professor—Educational  
Leadership  
Ed.D.—Northwest Missouri State  
University
- Pope, John Paul** (2002)  
Assistant Professor—Geology and  
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M.S.—University of Iowa
- Reusser, Janet** (1992)  
Associate Professor—Health, Physical  
Education, Recreation and Dance  
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**Richards, Beth** (1992)

Associate Professor—English  
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Assistant Professor—Chemistry and Physics  
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Assistant Professor—Music  
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Ph.D.—University of Missouri

**Rips, Beth** (2002)

Instructor—English  
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Associate Professor—Health, Physical Education, Recreation and Dance  
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**Ross, Theophil W.** (1978)

Professor—Communication, Theatre and Languages  
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**Rouch, Matthew** (1992)

Instructor—Mass Communication  
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Instructor—Communication, Theatre and Languages  
M.S.—Northwest Missouri State University

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**Russell, Doug** (1999)

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Assistant Professor—Psychology, Sociology and Counseling  
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**Ryan, Brenda** (1999)

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**Schwienebart, Cathi** (1997)

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**Shaw, John Jr.** (1988)

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Assistant Professor—Mathematics and  
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Professor—Family and Consumer Sciences  
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**Siva, Srikanth** (2002)

Instructor—Computer Science/Information  
Systems  
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**Spradling, Kim W.** (1984)

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**Steiner, Michael** (1997)

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**Stiens, Mary Jane** (1993)

Instructor—Horace Mann  
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- Tjeerdsma, Carol** (1995)  
Instructor—Curriculum and Instruction  
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- Toomey, Richard** (1999)  
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- Town, Stephen** (1986)  
Professor—Music  
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- Ury, Connie** (1997)  
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- Vetter, Rheba** (2002)  
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- Vlieger, David** (2002)  
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- Von Holzen, Roger** (1987)  
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- Vorderbruegge, Amy** (2001)  
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- Wainscott, Vicki** (1997)  
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- Walker, Jim** (1996)  
Associate Professor—Marketing and Management  
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- Walker, Matthew** (2001)  
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- Wall, Jennifer** (2005)  
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- Ware, Brett** (2003)  
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- Warner, Craig** (1998)  
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Associate Professor—Accounting, Economics and Finance  
Ph.D.—St. Louis University

**Woodruff, Ernest** (1976)

Professor—Music  
D.M.A.—University of Missouri-Kansas City

**Woods, Roger** (1981)

Assistant Professor—Accounting (C.P.A.), Economics and Finance  
M.B.A.—Northwest Missouri State University

**Wu, Yi-Hwa** (2004)

Assistant Professor—Geology and Geography  
Ph.D.—University of Utah

**Yang, Jang-Ae** (2005)

Assistant Professor—Family and Consumer Sciences  
Ph.D.—Kansas State University

**Zeliff, Nancy** (1987)

Associate Professor—Computer Science/ Information Systems  
Ph.D.—University of Missouri-Columbia

**Zweifel, Thomas** (1985)

Assistant Professor—Agriculture  
Ph.D.—University of Nebraska-Lincoln

## Emeritus 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

**Ballantyne, Edwin J., Jr.** (1989-1998)  
Ph.D.—Marketing and Management

**Barratt, George** (1962-1987)  
M.S.—Mathematics

**Bayliss, Andree** (1991-1999)  
Ed.D.—Curriculum and Instruction

**Bennerotte, Gary H.** (1992-2003)  
Ed.D.—Educational Leadership

**Bernard, Barbara** (1966-1992)  
M.S.—Physical Education

**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

**Boone, Luke L.** (1958-1988)  
M.A.—Library

**Bouas, Jean** (1992-2003)  
Ph.D.—Curriculum and Instruction

**Bowers, John** (1980-2003)  
Ph.D.—Psychology, Sociology and  
Counseling

**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

**Browning, Edward** (1961-2000)  
Ph.D.—Accounting, Economics and  
Finance

**Browning, Sharon** (1964-1999)  
Ph.D.—Marketing and Management

**Bush Betty** (1983-2002)  
Ph.D.—Curriculum and Instruction

**Carneal, Tom** (1968-2002)  
M.A.—History, Humanities and  
Philosophy

**Collins, Gary** (1978-2001)  
Ph.D.—Physical Education

**Collins, Herman** (1966-1993)  
Ed.D.—Technology

**Corley, Roger** (1966-1997)  
Ph.D.—History, Humanities and  
Philosophy

**Coss, David** (1966-1993)  
Ph.D.—English

**Crist, Leroy** (1962-1993)  
Ed.D.—Technology

**Crozier, David** (1940-1982)  
M.Ed.—Technology

**DeVore, Elwyn K.** (1950-1985)  
D.B.A.—Business

**Dodds, Charles W.** (1988-2002)  
Ph.D.—Geology and Geography

**Dougherty, John** (1965-1979)  
M.A.—Foreign Languages

**Dyche, Lewis** (1964-1990)  
M.S.—Physical Education

**Eckert, Opal E.** (1956-1974)  
M.S.Ed.—English

**Edwards, Margaret A.** (1968-1993)  
D.M.A.—Music

**English, George** (1977-1995)  
Ph.D.—Government

**Fairchild, Johanne** (1978-2001)  
Ph.D.—Agriculture

**Farquhar, Edward** (1964-2001)  
Ph.D.—Chemistry and Physics

**Findley, Robert** (1971-1992)  
M.B.A.—Business

**Fry, Carrol** (1972-2003)  
Ph.D.—English

**Gates, James O., Jr.** (1969-1992)  
Ed.D.—Curriculum and Instruction

**Gayler, George** (1949-1987)  
Ph.D.—History and Humanities

**Gille, George** (1970-2003)  
Ph.D.—Agriculture

**Goad, Craig** (1966-2006)  
Ph.D.—English

**Gregory, Robert** (1954-1986)  
M.S.—Physical Education

**Hagan, Donald** (1965-2000)  
Ed.D.—Geology and Geography

**Hageman, Lee** (1967-1998)  
M.F.A.—Art

**Handke, Frederic** (1962-1976)  
C.L.U.—Business

**Hanson, Linda** (1983-2003)  
M.B.A.—Accounting, Economics and  
Finance

**Hart, Richard** (1962-1990)  
Ph.D.—Biology

**Hawkins, Charles** (1975-1993)  
Ph.D.—Accounting

**Hemenway, Henry** (1968-1987)  
Ed.D.—Curriculum and Instruction

**Herauf, James** (1976-1997)  
H.S.D.—Physical Education

**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

**Hinshaw, George** (1956-1986)  
Ph.D.—Speech

**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

**Jewell, Duane K.** (1984-2003)  
Ph.D.—Agriculture

- Jewett, Mike** (1969-2000)  
Ph.D.—English
- Kennedy, Madonna Davis** (1978-2001)  
M.A.—Library
- Kenner, Jean** (1970-1987)  
M.A.—Mathematics
- Kenner, Morton** (1970-1987)  
Ph.D.—Mathematics
- Killingsworth, Amy** (1966-1980)  
M.A.L.S.—Learning Resources
- Kramer, Gerald H.** (1988-1999)  
Ph.D.—Marketing and Management
- Landes, A. Richard** (1965-2000)  
M.S.—Chemistry and Physics
- Leeper, Kathie** (1976-2000)  
Ph.D.—Speech
- Leeper, Roy** (1980-2000)  
J.D.—Speech
- LeMar, Homer** (1969-1992)  
Ed.D.—Psychology
- Leshner, Merle** (1967-1997)  
Ph.D.—Educational Leadership
- Lindaman, Arnold D.** (1989-2001)  
Ph.D.—Educational Leadership
- Lister, Ina Claire** (1995-2002)  
Ed.S.—Educational Leadership
- Lott, James** (1968-1999)  
Ph.D.—Chemistry and Physics
- Lowe, James** (1959-1979)  
Ph.D.—Sociology
- Macias, Luis** (1969-1990)  
Ph.D.—Foreign Languages
- Marion, JoAnn** (1968-2005)  
M.Ed.—Education
- Maxwell, Dwight** (1970-2000)  
Ph.D.—Geology and Geography
- May, Leland** (1969-1999)  
Ed.D.—English
- McDonald, June** (1984-2002)  
D.M.A.—Music
- McDonald, Kendall** (1975-2002)  
Ph.D.—Mathematics
- McKee, Kathryn** (1946-1982)  
M.A.—Education
- Merrick, Irma** (1969-1987)  
M.S.Ed.—Physical Education
- Midland, Dale** (1961-1995)  
M.A.Ed.—English
- Miller, Leon F.** (1950-1985)  
Ph.D.—Education
- Miller, Peggy** (1969-2001)  
Ph.D.—Family and Consumer Sciences
- Minter, Kenneth W.** (1963-1993)  
Ph.D.—Biology
- Mitch, Patricia** (1966-1995)  
M.S.—Human Environmental Sciences
- Mitchell, Byron** (1964-1999)  
M.M.E.—Music
- Mitchell, Corrine** (1970-1985)  
M.A.—Home Economics
- Moss, Ron** (1966-1999)  
Ph.D.—Computer Science/Information Systems
- Moss, Martha** (1958-1994)  
M.S.Ed.—Marketing and Management
- 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
- Redd, James C.** (1967-2001)  
Ed.D.—Physical Education
- Rhoades, John** (1968-1992)  
Ed.D.—Technology
- Riley, Nancy** (1975-2004)  
M.S.Ed.—Curriculum and Instruction
- Rischer, Gus** (1968-1991)  
M.A.—Counseling
- Robertson, Donald** (1963-1993)  
M.A.—Art
- Rose, George E.** (1984-2000)  
M.F.A.—Art
- Rosenburg, Dale W.** (1966-1986)  
Ph.D.—Chemistry
- Rounds, C. Ward** (1960-1985)  
Ed.S.—Music
- Rowlette, Ann** (1971-2004)  
Ph.D.—Family and Consumer Sciences
- Ryan, Joseph** (1985-1998)  
Ph.D.—Educational Leadership
- Sanders, Ivan R.** (1968-1983)  
Ed.D.—Education
- Sandford, Donald** (1950-1983)  
D.M.A.—Music
- Sandford, Mary Jane** (1951-1983)  
M.M.—Music
- Saucerman, James** (1962-1997)  
Ph.D.—English
- Savage, Dean** (1961-1991)  
Ed.D.—Educational Administration
- Savage, Ruth** (1965-1982)  
Ph.D.—Education
- Schmaljohn, Russell** (1969-2004)  
M.S.—Art
- Schultz, Charles** (1976-2002)  
Ph.D.—Communication and Theatre Arts
- Schultz, Patricia Bowers** (1985-2002)  
D.M.A.—Music
- Scott, Billy D.** (1960-1991)  
Ph.D.—Biology
- Sergel III, Alfred** (1981-2004)  
M.S.Ed.—Music
- Shanklin, James T.** (1966-1999)  
M.S.—Accounting, Economics and Finance
- Smeltzer, Jim** (1969-2003)  
Ed.D.—Chemistry and Physics
- Smith, David** (1966-2001)  
Ph.D.—Biological Sciences
- Smith, Wanda Walker** (1955-1983)  
Ed.D.—Psychology
- Slater, David** (1970-2004)  
Ph.D.—English
- Sunkel, Mary Jane** (1961-1996)  
M.B.A.—Computer Science/Information Systems

**Sunkel, Robert** (1960-1998)

M.F.A.—Art

**Thomson, Nancy** (1981-2001)

Ph.D.—Computer Science/Information Systems

**Trowbridge, William** (1971-1998)

Ph.D.—English

**VanDyke, Patricia** (1969-2001)

Ph.D.—English

**Van Zomeren, Wayne** (1966-1998)

M.A.—Psychology

**Wade, Stanley L.** (1967-1991)

Ed.D.—Educational Administration

**Walker, Dorothy** (1958-1987)

M.Ed.—Physical Education

**Weichinger, Theodore** (1954-1988)

Ed.D.—Chemistry and Physics

**Weymuth, Richard** (1980-2001)

Ph.D.—Music

**Wright, Gerald** (1969-2000)

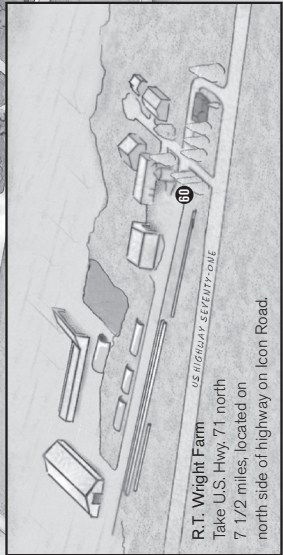
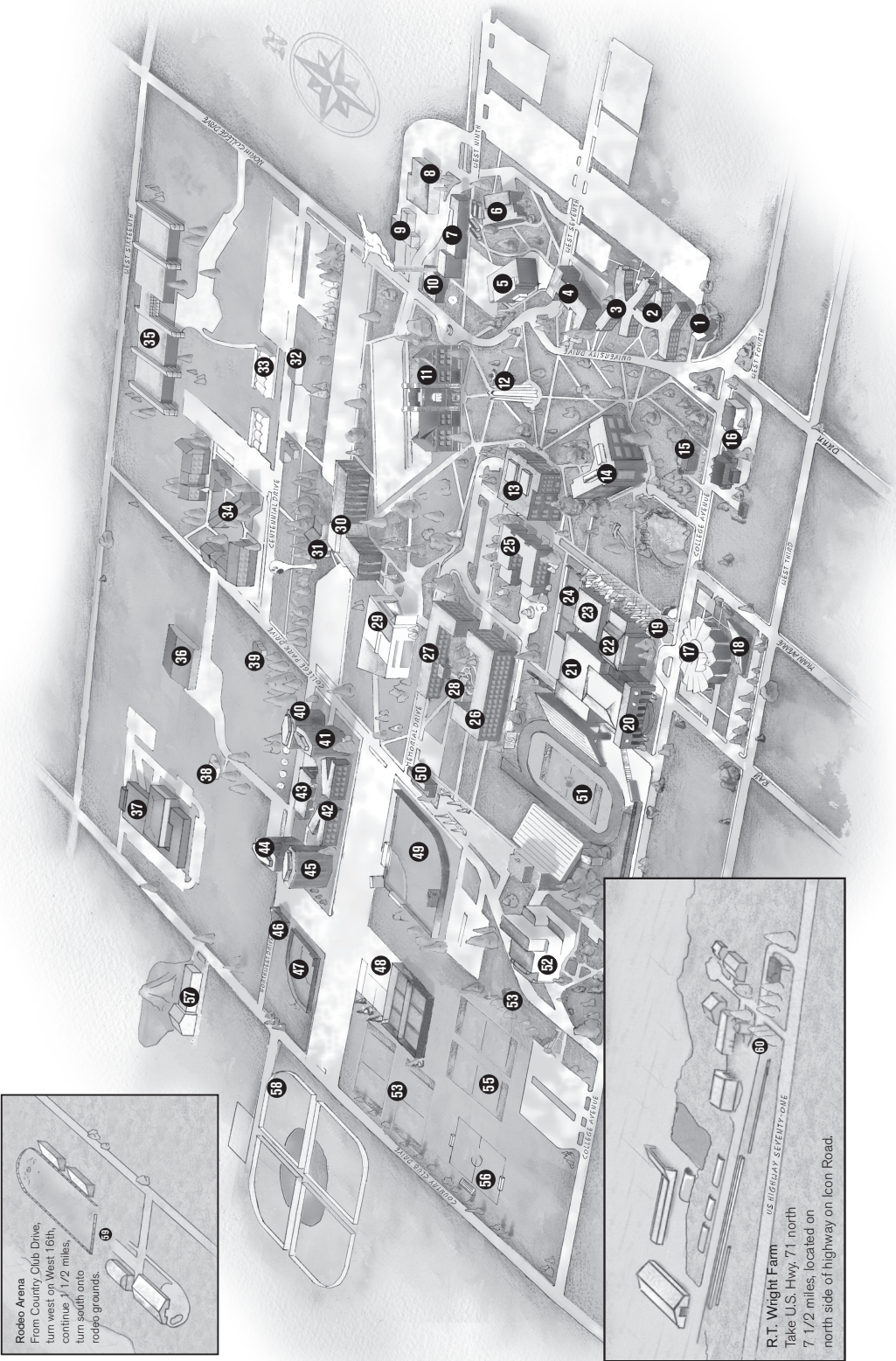
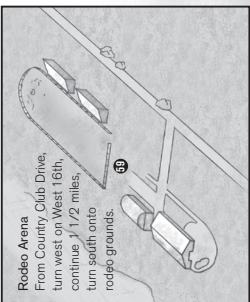
Ed.S.—Curriculum and Instruction

**Wynne, F. Patrick** (1972-2000)

Ph.D.—Biological Sciences

## Campus Map

1. Mabel Cook Admissions and Visitors Center
2. Hudson Hall, men's and women's residence hall
3. Perrin Hall, men's and women's residence hall
4. Roberta Hall, women's residence hall
5. Wells Hall
6. Valk Agriculture Professions Center
7. Thompson-Ringold Building
8. Support Services/Campus Safety
9. Environmental Services Shops
10. Biomass Research Center
11. Administration Building
12. Memorial Bell Tower
13. J.W. Jones Union
14. Colden Hall
15. Thomas Gaunt House, president's residence
16. Advancement Complex: Alumni and Development
17. DeLuce Fine Arts Building, CJT
18. Fire Arts Building
19. Joyce & Harvey White International Plaza
20. Lamkin Activity Center
21. Student Rec Center
22. Martindale Hall
23. Robert P. Foster Aquatic Center
24. Frank Grube Tennis Courts
25. Everett W. Brown Education Hall
26. South Complex, residence hall
27. North Complex, Missouri Academy
28. Centennial Garden
29. B.D. Owens Library
30. Garrett-Strong Science Building
31. Botany Lab
32. McKemy Center for Lifelong Learning
33. Greenhouses
34. Forest Village Apartments
35. Missouri Center of Excellence for Plant Biologics
36. Materials Distribution Center
37. Maryville Community Center  
National Guard Armory
38. University Greenhouse
39. Landscape Services Office and Shop
40. Dieterich Hall, men's residence hall
41. Franken Hall, men's and women's residence hall
42. Tower Suites
43. The Station
44. Millikan Hall, women's residence hall
45. Phillips Hall, men's and women's residence hall
46. Health Center
47. Softball Field
48. High Rise Tennis Courts
49. Bearcat Baseball Field
50. Notebook Computing Center
51. Rickenbrode Football Stadium and  
Herschel Neil Track
52. Performing Arts Center
53. Amphitheatre
54. College Park
55. Practice Fields
56. Bearcat Pitch (Soccer Field)
57. Power Plant
58. Donaldson Westside Park
59. Rodeo Arena
60. R.T. Wright Farm



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ADA/504 Coordinator .....	1726	Outreach Education .....	1476
Admissions (Administration Bldg.).....	1148	President's Office .....	1110
Admissions (Mabel Cook).....	1562	Provost .....	1120
Advisement Assistance .....	1695	Psychology/Sociology/Counseling.....	1260
Agriculture .....	1155	Rec Center .....	1606
Alumni Relations/Northwest Foundation.....	1248	Registrar.....	1151
Aquatic Center/Foster Pool.....	1357	Residential Life .....	1214
ARAMARK (Dining Services).....	1252	Student Affairs.....	1242
Art 1326		Evenings and Weekends .....	1615
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English .....	1265	Professional Studies.....	1277
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Health/PE/Recreation/Dance .....	1297	Perrin.....	1452
History/Humanities/Philosophy/Pol Sci. ....	1290	Phillips .....	1366
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ID Office.....	1430	South Complex .....	1516
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KZLX Radio .....	1165	Health Center.....	562-1348
KNWT .....	1953	Campus Safety.....	562-1254
KXCV Radio .....	1163	Emergency only.....	562-1901, 562-1902
Library.....	1193	Fire/Police.....	562-2511
Mail/Copy Center.....	1109/1137	Nodaway County Sheriff .....	582-7451
Marketing/Management.....	1837	Highway Patrol .....	582-3420
Mass Communication .....	1361	Ambulance.....	582-8188
Mathematics/Statistics and Laboratory .....	1230		
Missouri Academy.....	1960		

Area code 660.

Call 562-1212 for numbers not listed.