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Undergraduate Catalog 2004-2005
This catalog is a guide for information only and is not a contract. This catalog becomes effective Fall Semester 2004 and expires through the Summer Session 2005. The official University address is Wichita State University, 1845 Fairmount, Wichita, Kansas 67260. The official University telephone number is (316) 978-3555. For admission information, call toll-free (800) 362-2594. The University's World Wide Web address is www.wichita.edu.
What you’ll find inside this Catalog

• For new and continuing students, it’s a guide to academic life at WSU.
• For high school and community college advisors, it’s an information source that will help students make the best possible transition from their current educational setting to WSU.
• For WSU personnel, it’s the standard reference for answers to many University policies and procedure questions.

This preface is a guide for students; it highlights some of the subjects covered in the Undergraduate Catalog. For specific topics, see the Catalog's Table of Contents and Index.

About Our University
The opening pages introduce you to the people who lead our University and our special mission as part of the Kansas Regents' system of public universities. Next is a profile that will give you a brief overview of our University today. We’ve also provided a short history of WSU. To help you find your way around the University, we’ve included a campus map.

About Becoming a Student
The first step in becoming a student is getting admitted to the University. There are several types of admission to Wichita State's degree and nondegree programs. Learn about these and find a complete guide to becoming an official WSU student in this Catalog.

The next step is to look carefully at your educational options. Check out the range of WSU's advising services in this Catalog or online.

If you’re not sure what you want to study, the place for you is the Liberal Arts and Sciences Advising Center. It helps WSU students explore academic and career plans.

If you know what your major will be or if you’ve already chosen a degree plan, you’ll be assigned an advisor within one of the colleges at WSU. Your advisor will help you develop your personal course of study at WSU and assist as you put together your individual semester class schedules. Take a look inside the back cover for a chart of the degrees and academic majors offered at WSU.

To ensure the best possible start for each student, WSU provides special academic success programs. If you’re interested, the Catalog has information to help you connect with the one that’s right for you.

About Getting Started at WSU
After you’ve worked out a plan with your advisor, you’ll be ready to sign up for classes through online, telephone, or in-person registration. Specific policies regarding registration are found in this Catalog, and we’ve included an Academic Calendar that lists important dates in the WSU year.

Each semester, our orientation program introduces new students to academic and campus life. You’ll learn not only what a Shocker is, but how to be one.

By this time, you may be thinking you need some space to call your own. If you’re interested in on-campus living, check out the information on campus housing.

Need financial assistance and scholarships to help cover the cost of your education? You’ll find information about that here, too. Plus, you’ll find a comprehensive fee schedule to help take the guesswork out of figuring your costs.

About WSU's Academic Advantage
WSU students receive quality instruction from faculty who value students and classroom achievement. All students working toward a bachelor's degree complete general education courses to gain the background needed for a university education. WSU's general education requirements are included, along with a worksheet for your use.

Because we emphasize student-centered instruction, WSU maintains a strong support system of academic resources. To help students outside the classroom, we offer math, language, and writing labs. We have computer labs for students and a library study room that’s open 24-hours-a-day. Every WSU student is eligible for an e-mail account and Internet access. The resources of our libraries, the Computing Center, and the Media Resources Center provide major educational and technical support for the entire University community.

As a WSU student, you have many academic options. You may decide to attend a special workshop, or climb a mountain on a field study, study abroad, or ‘exchange’ credits by taking classes at another university in the United States. The Catalog has information on these general academic programs and others including WSU's Honors Program.

Our University has a long-standing reputation for excellence in basic classroom instruction. Our faculty's merit is reflected in the ranking of their scholarly...
Contributions and the results of their nationally recognized research. You'll find each of our faculty listed in this Catalog along with their title, academic field, and educational background.

**About WSU’s Metropolitan Advantage**

Because WSU is the only Kansas Regents' university located in an urban setting, our students have distinct advantages for experiential learning. One benefit of our urban setting is a strong cooperative education program for students who wish to combine classroom studies with academically related, paid employment.

Convenient classroom locations are another hallmark of our urban university. In addition to our main campus at 21st and Hillside, WSU offers classes in locations in Wichita's west side and south side.

Safety is a priority at every University location, and our well-lighted main campus is rated as one of the safest in the nation.

Child care is available at the main campus child development center. WSU also provides counseling and testing for students. We have special programs for students interested in multicultural affairs and offices for international programs, veterans services, and disability services. Student Support Services, a federally funded program, assists limited income and first generation college students in meeting their academic goals.

The Catalog describes the myriad of student academic services available at WSU. Together these services provide a safety-net for many different students—from those away from home and entering an urban environment for the first time to the adults who are returning to campus to further their education.

**About Campus Life**

At WSU students can enjoy both our urban setting and traditional campus life. Our time-honored traditions begin each academic year with Welcomefest, followed by Shocktoberfest, a week-long, all-campus, event held each October. Throughout the year, NCAA Division One competition offers the excitement of men's and women's basketball, championship baseball, and other varsity sports. Hippodrome is a spring event filled with activities for students. Then faculty, students, and their families relax and enjoy our outdoor movie series before May finals wind down the academic year.

There's always plenty to do at WSU, whether it's joining organizations, taking part in the Student Government Association, or experiencing sorority and fraternity life. The Catalog can put you in touch with these and other campus activities including intramural sports and recreation.

If staying fit is a high priority, the Heskett Center is the place for you. There you'll find an indoor swimming pool, exercise equipment, walking track, and gym.

The Catalog also can lead you to the heart of the campus, the Rhatigan Student Center, home of the campus bookstore, restaurants, meeting rooms, and a bowling and recreation center.

WSU students get special rates for some events, the Wichita Symphony, and golf at Braeburn, the 18-hole campus course.

Grace Memorial Chapel and other campus facilities such as the Ulrich Museum of Art are open to students. Each day our students enjoy WSU's diverse outdoor sculpture collection, one of the largest found on any university campus in the United States.

**About Your Studies**

This Catalog describes our six colleges: W. Frank Barton School of Business, College of Education, College of Engineering, College of Fine Arts, College of Health Professions, and Fairmount College of Liberal Arts and Sciences. The general policies and programs available in each college are included. Each course is listed by number and title together with a brief description of what you can expect to study in that course. As you plan your program, the Catalog can provide information on graduation requirements.

The Catalog also gives specific information about academic policies and procedures University-wide. From access and auditing to exemptions and examinations—from honors recognition to academic probation, it's the place to go to when you need the rules and regulations.

**About Your Life After WSU**

As you near the end of your career at WSU, this Catalog will help your transition to the world outside the University. It can guide you to our career services office where you'll get help in creating resumes and making contacts for employment interviews. It will lead you through Commencement ceremonies and beyond. Our Alumni Association and the WSU Foundation offer opportunities to continue your relationship with Wichita State.

The Catalog was created to assist students. Whether you've just enrolled in your first class or you're about to receive your degree, we hope the Catalog will be a path through our academic world, make your life as a student easier, and help you build strong ties to Wichita State University.
### Academic Calendar for 2004-2005

#### Fall Semester 2004
- **August 11-18**: Fall semester registration
- **August 19**: Weekday and evening classes begin
- **September 5**: Labor Day, holiday
- **October 13**: Midterm point
- **October 17-19**: Fall recess
- **November 1**: Final date for withdrawal with nonpenalty grades
- **November 8-January 6**: Web registration period for spring semester (exact dates published in the Schedule of Courses)
- **November 24-28**: Thanksgiving recess
- **December 9**: Last day of classes
- **December 10**: Study Day
- **December 11-17**: Final examinations
- **December 12**: Fall semester ends

#### Spring Semester 2005
- **January 11-15**: Spring semester registration
- **January 17**: Martin Luther King, Jr. Day, holiday
- **January 18**: Classes begin
- **March 11**: Midterm point
- **March 21-27**: Spring recess
- **April 1**: Final date for withdrawal with nonpenalty grades
- **April 18-August 5**: Web registration period for fall semester (exact dates published in the Schedule of Courses)
- **May 9**: Last day of classes
- **May 10**: Study Day
- **May 11-17**: Final examinations
- **May 17**: Spring semester ends
- **May 13, 14**: Commencement

#### Summer Semester 2005
- **May 30**: Memorial Day, holiday
- **May 31-June 3**: Presession and workshops
- **May 31-June 3**: Summer Session registration
- **June 6**: Classes begin, first four-week term and eight-week term
- **July 1**: Last day of first four-week term
- **July 4**: Independence Day holiday
- **July 5**: Classes begin, second four-week term
- **July 29**: Summer Session ends

These dates are subject to change.

The University reserves the right to change any of the rules and regulations of the University at any time, including those relating to admission, instruction, and graduation. The right to withdraw curricula and specific courses, alter course content, change the calendar, and impose or increase fees similarly is reserved. All such changes are effective at such times as the proper authorities determine and may apply not only to prospective students but also to those who already are enrolled in the University.

Notice of Nondiscrimination: Wichita State University does not discriminate on the basis of race, religion, color, national origin, gender, age, marital status, sexual orientation, status as a Vietnam-era veteran, or disability. Any person having inquiries concerning this may contact the Office of Equal Employment Opportunity, Wichita State University, 1845 Fairmount, Wichita, Kansas 67260-0145, (316) 978-3001. See page 36 for a more detailed nondiscrimination statement.
General Information

203-2004 University and Academic Officers
Donald L. Becks, President
Robert L. Kindred, Vice President for Academic Affairs and Research
Roger D. Lowe, Vice President for Administration and Finance
Elizabeth H. King, Vice President for University Advancement
Ronald R. Kopita, Vice President for Student Affairs
Ted D. Ayres, Vice President and General Counsel
Jim Schaum, Director of Intercollegiate Athletic Association, Inc.
Eric Sexton, Director, Government Relations
Susan Kower, Dean of the Graduate School
John M. Bechler, Dean of the W. Frank Barton School of Business
Jon Englehardt, Dean of the College of Education
Walter Horn, Interim Dean of the College of Engineering
Elaine D. Bernstadt, Interim Dean of the College of Fine Arts
Peter A. Cohen, Dean of the College of Health
Professions
William Bischoff, Dean of Fairmount College of Liberal Arts and Sciences
Pal Rao, Dean of Libraries
Cheryl Anderson, Dean of Students
James Kelley, Dean of Operations and Personnel
Christine Schmickart-Luebbe, Dean of Enrollment Services

Kansas Board of Regents
Reggie Robinson, President and CEO
Janice DeBauge, Emporia, Chair
Richard Bond, Overland Park, Vice-Chair
William R. Docking, Arkansas City
Lew Ferguson, Topola
Frank Gaines, Hamilton
Nelson Galle, Manhattan
James Grier III, Wichita
Donna L. Shank, Liberal
Deryl Wynne, Kansas City

Mission Statement

In 1991, the Kansas Board of Regents approved the following mission statement for Wichita State University:

Wichita State University is committed to providing comprehensive educational opportunities in an urban setting. Through teaching, scholarship, and public service, the university seeks to equip both students and the larger community with the educational and cultural tools they need to thrive in a complex world, and to achieve both individual responsibility in their own lives and effective citizenship in the local, national, and global community.

High quality teaching and learning are fundamental goals in all undergraduate, graduate, and continuing education programs. Building on a strong tradition in the arts and sciences, the University offers programs in business, education, engineering, fine arts, and health professions, as well as in the liberal arts and sciences. Wichita State has 113 degree programs that range from the associate to the doctoral level; non-degree programs are designed to meet the specialized educational and training needs of individuals and organizations in south central Kansas.

Scholarship, including research, creative activity, and artistic performance, is designed to advance the University's goals of providing high quality instruction, making original contributions to knowledge and human understanding, and serving as an agent of community service. This activity is a basic expectation of all faculty members at Wichita State University.

Public and community service activities seek to foster the cultural, economic, and social development of a diverse metropolitan community and of the state of Kansas. The University's service constituency includes artistic and cultural agencies, business and industry, and community educational, governmental, health, and labor organizations.

Wichita State University pursues its mission utilizing the human diversity of Wichita, the state's largest metropolitan community, and its many cultural, economic, and social resources. The University faculty and professional staff are committed to the highest ideals of teaching, scholarship, and public service, as the University strives to be a comprehensive, metropolitan university of national stature.

Wichita State University Profile

Wichita State University is distinguished from other state-supported schools in Kansas by its urban setting. Wichita State's location in the largest city in Kansas enhances the traditional classroom experience by providing students greater opportunities in resources, contacts with business and government leaders, employment, and internships.

With an enrollment of about 15,000, Wichita State prides itself on specialized attention to each student. Although the University's students come from almost every state in the Union and 110 foreign countries, 87 percent are from Kansas, representing most counties in the state.

The average age of freshmen at Wichita State is 19; the average age of all undergraduate students is 24. Approximately half of the students at WSU attend full time, while the other half attend part time and take advantage of gaining work experience at such local companies as Boeing, Raytheon Aircraft; Cessna Aircraft; Coleman, Inc.; Bank of America; Bombardier Aerospace-Leявet; Via Christi Regional Medical Center; Wesley Medical Center; and Koch Industries. Wichita State students also take advantage of hundreds of campus activities, plus they enjoy the largest selection of malls, shops, restaurants, clubs, golf courses, amusement parks, and movie theaters in the entire state.

Wichita State University offers more than 60 undergraduate degree programs in more than 200 areas of study in six undergraduate colleges: W. Frank Barton School of Business, College of Education, College of Engineering, College of Fine Arts, College of Health Professions, and Fairmont College of Liberal Arts and Sciences. The Graduate School offers an extensive program including 43 master's degrees which offer study in more than 100 areas; a specialist in education degree; and doctoral degrees in applied mathematics; chemistry; communicative disorders and sciences; human factors and community/criminal psychology; educational administration; and aerospace, electrical, industrial, and mechanical engineering. A listing of the programs and degrees offered at Wichita State University is located on the inside back cover of the Catalog.

WSU offers the traditional fall and spring semesters. It has the largest number of evening and summer course offerings in the Kansas Board of Regents' system. The summer session features a flexible time format with a two-week pre-session and two four-week sessions held concurrently with the regular eight-week session. During the traditional sixteen-week semester, many courses are offered in an eight-week, four-week, or shorter format.

Although WSU's first commitment is to excellence in instruction, it is equally committed to excellence in research and public service.

An important resource to the Wichita area business community, Wichita State supports business and industry through programs such as those offered by the Mid-America Manufacturing Technology Center. The corporate community utilizes programs offered by the University's Center for Management Development for continuing professional development. The Center for Entrepreneurship encourages development of small businesses, while the Husky Wall Center for Urban and Public Affairs supports local and state government activities.

The 330-acre campus is modern and accessible and at the same time retains the flavor of the University's 108-year heritage. More than 60 pieces of sculpture by internationally known artists adorn the campus. "Perspectives: Osense," a colorful mural created by the great Spanish artist Joan Miró, is displayed on the walls of the Edwin A. Ulrich Museum of Art. During the past 20 years, Wichita State has more than doubled its instructional space, adding major buildings for art, engineering, health sciences, biological sciences, physical education, music, dance, and liberal arts and sciences.

Approximately 120 social and special interest clubs provide opportunities for students to meet and
work with others who share their interests. Nine national sororities and 11 national fraternities are active on campus.

WSU is a Division I institution and fields teams in tennis, cross-country, basketball, track, golf, crew, soccer, and bowling; men's baseball; and women's volleyball and softball.

Wichita State has 467 full-time faculty and 48 part-time faculty. Of the total, 74 percent have earned the highest degree in their field. Of all undergraduate credit hours, 58 percent are taught by full-time faculty. The average age of our faculty is 51.5; 60 percent are males and 40 percent are females.

History
Wichita State began as Fairmount College, a Congregational institution, in 1895. The college also continued the college preparatory program of Fairmount Institute which began in 1892. In 1926, by a vote of the citizens of Wichita, the college became the Municipal University of Wichita, the first municipal university west of the Mississippi.

After 38 years as a municipal university, WSU again changed its status July 1, 1964, when it officially entered the state system of higher education. Now, Wichita State University is one of five state universities governed by the Kansas Board of Regents.

When WSU was established, the Kansas Legislature mandated a levy of 1.5 mills to constitute a living endowment for the new university, a tax that was later adopted by all of Sedgwick County. To administer this fund and other local assets, the Legislature created the WSU Board of Trustees, thus continuing the tradition of a local board which began as the Fairmount College Board of Trustees in 1887 and continued as the WSU Board of Regents from 1926 to 1964.


University Support Areas
Alumni Association
The WSU Alumni Association is the oldest and largest support organization for Wichita State University. Founded in 1913, the alumni association is the network through which the University community and its alumni communicate with and serve one another. The primary intent of the partnership between the association and the University is to ensure the continued excellence of Wichita State. But this serious mission certainly doesn’t mean the association isn’t serious about fun, too. Scores of exciting Shocker opportunities to participate in programs and events geared for fun prove this point every season.

Many traditional University events, such as Welcomefest, Commencement and the Senior Breakfast, are supported by association dollars and volunteers. Two WSU initiatives that benefit students and rely on alumni participation for their success are the Career Network Experience (CNE) and the "Drive Your Pride" WSU license plate program. CNE is a for-credit student mentoring program. A joint enterprise of the association and Cooperative Education, CNE pairs students with alumni professionals in their fields of study. The license plate program offers alumni and students the opportunity to sport WUShock on their official Kansas tags, and, at the same time, support student scholarships. The tax program pours thousands of dollars each year into WSU’s general scholarship fund. The association also helps support WSU’s Student Ambassador Society and sponsors its own student organization, the Student Alumni Association.

For more information about the groups, events, projects and publications of the WSU Alumni Association, call 978-3290 or stop by the Woodman Alumni Center, 4205 East 21st Street, just east of Ed Stadium/Tyler Field.

Admission Requirements—Undergraduate: Domestic

In-state freshmen
Students who graduated before May 2001 must have:
1. Graduated from an accredited Kansas high school or
2. A passing score on the Kansas GED and a diploma.
3. A score of at least 18 on the ACT or 870 on the SAT-I if they graduated from a nonaccredited high school.

Students who graduated May 2001 or after must:
1. Have achieved a composite ACT score of 21 or equivalent SAT-I of 980, or
2. Rank in the top third of their high school class upon completion of seven or eight semesters, or
3. Have completed a pre-college curriculum with a minimum GPA of 2.00 on a 4.00 scale.

Note: The pre-college curriculum prescribed by the Kansas Board of Regents is four units of English, three units of mathematics, three units of natural sciences, three units of social sciences, and one unit of computer technology. Each accredited Kansas high school has specific courses approved to meet these standards.

4. Have achieved a composite ACT score of 21 if they graduated from a nonaccredited high school.
5. Have a passing score of at least 2.550 and a score of at least 510 on each subtest of the GED exam if a Kansas resident younger than 21.

Residents 21 or older may be admitted either with an overall score of 2,550 on the GED or graduation from an accredited high school.

Out-of-state freshmen (See residency requirements on page 37)
Students who graduated before May 2001 must:
1. Rank in the upper half of their graduating class, or
2. Have earned a minimum 2.00 GPA on a 4.00 scale, or
3. Have achieved a minimum ACT composite score of 21 or equivalent SAT-I of 980, or
4. Have passed the GED exam and received a diploma.

Students who graduated May 2001 or after must:
1. Have achieved a composite ACT score of 21 or equivalent SAT-I of 980, or
2. Rank in the top third of their high school class upon completion of seven or eight semesters, or
3. Have completed a pre-college curriculum (see note in #3 above) for in-state freshmen who graduated May 2001 or after] with a minimum GPA of 2.50 on a 4.00 scale.

4. Have a minimum GED score of 2,550 if 21 or older.

Transfer students
• Must have a minimum cumulative GPA of 2.00 on a 4.00 scale on all previous college work. (Note: the Barton School of Business requires a 2.50 GPA and the College of Education requires a 2.25 GPA.)

Transfer students are encouraged to bring copies of their academic transcript and meet with an academic advisor prior to enrolling. The advisor can provide information about degree requirements and the eligibility of the student's prior course work towards their degree of choice. Contact an academic advisor through the dean's office. See page 10.

WSU participates in the Transfer and Articulation Agreement of the Kansas Public Community Colleges and State Colleges and Universities. See page 17.

Students transferring from a two-year college must complete at least 60 hours of four-year college work and 40 hours of upper-division work in order to qualify for graduation. In no case will work done in a two-year college be credited as junior- or senior-level work at WSU. See requirements for graduation, page 33.

*Students who are unable to meet these requirements because of unusual circumstances may be considered for special admission through the University Exceptions Committee. Contact the Office of Admissions, 978-3053, for details.
Admission Process—Undergraduate; Domestic

To apply for admission, students should submit a WSU application in paper or electronic format. The application and full instructions are available from the Office of Admissions or at www.admissions.wichita.edu

High School Students or College Transfers with 1-23 hours of college credit
- Send a completed and signed application.
- Have your official high school transcript (minimum of six semesters) and college transcript(s), if applicable, sent directly to the WSU Office of Admissions.
- Have your ACT, SAT, or GED scores sent directly from the testing agency to the WSU Office of Admissions.
- Submit a nonrefundable $30 application fee.

College Transfers with 24 or more hours of college credit
- Send a completed and signed application.
- Have your official college transcript(s) sent directly to the WSU Office of Admissions.
- Official high school transcripts are required only if seeking federal financial assistance.
- Submit a nonrefundable $30 application fee.

Admission Requirements
- Completed their junior year of high school.
- Younger students will be considered on an individual basis.
- Submit an application and $30 fee
- Submit an official high school transcript
- Obtain a high school counselor’s permission to take college courses while in high school.
- High school guest admission must be renewed each semester.

Guest Students—International Students
- Students issued a visa for another institution may be admitted as guest students at Wichita State providing they meet all criteria for admission outlined in the International Students section (see below).

International Student Admission

Wichita State University demonstrates its commitment to international education through its Office of International Education. The office assists international students with cultural acclimation, immigration counseling, English language instruction, and admission to the University.

The University welcomes students of every national, racial, religious, ethnic, and cultural background. Admission decisions are based solely on the academic qualifications of applicants.

English Requirements
- All international undergraduate students at Wichita State University are required to demonstrate proficiency in English before beginning full-time academic study. Students, however, are not required to submit proof of English proficiency, such as TOEFL results, with their application for admission. The University will consider all undergraduate applicants for admission without proof of English proficiency. English proficiency may be demonstrated in the following ways:
  1. Obtain a TOEFL score of 550 or higher on the paper-based TOEFL.
  2. Obtain a TOEFL score of 197 or higher on the
computer-based TOEFL.
3. Obtain an IELTS overall band score of 6.0 or higher.
4. Obtain a satisfactory score on the WSU English Proficiency Examination.
5. Successfully complete the highest level of WSU’s Intensive English Language Center.
6. Complete at least 30 transferable semester credit hours at a U.S. college or university.

"All TOEFL scores must be sent directly from the TOEFL office in Princeton, New Jersey.

Application Information. In order to apply, all international undergraduate students must submit the following:
1. A completed International Undergraduate Application form.
2. US $50 nonrefundable application fee.
3. Official copies—in English—of all transcripts from all secondary schools, colleges, or universities attended.

Non-degree status. Some students wish to study for one or more semesters without earning a degree. Non-degree applicants must submit all of the required application materials and will receive the same consideration as degree candidates.

Other requirements. All international students are required to have medical insurance that meets University requirements, including support for repatriation and medical evacuation. If needed, medical insurance may be purchased at the University. All new students are required to be tested for tuberculosis after their arrival in Wichita. Graduate students. For more information, graduate students should consult the Graduate Catalog; the Website (see below); or e-mail grad@wichita.edu

For more information, write:
Office of International Education
Wichita State University
Wichita, Kansas 67260-0122 USA
Telephone: (316) 978-3222
Fax: (316) 978-3777
E-mail: international@wichita.edu
Internet: www.wichita.edu/ielc

Exceptions Committee
The University has an Exceptions Committee to review petitions from people seeking admission to the University as domestic undergraduates who otherwise do not qualify. The committee also considers petitions from students seeking exceptions to specific academic rules and regulations. Students are advised to begin the petitioning process by consulting with academic advisors in their college of enrollment. There is a separate appeal process for international undergraduate admission through the International Education office.

Graduate Student Admission
Specific requirements for either degree or non-degree admission and for all graduate programs are listed in Wichita State University's Graduate Catalog.

For further information about graduate admissions requirements or graduate programs or to obtain graduate application materials, contact the Graduate School Office, 107 Jardine Hall, Wichita State University, 1845 Fairmount, Wichita, Kansas 67260-0004. (316) 978-3095, or order online at web.wichita.edu/gradsch

Shocker Connection: Orientation
Orientation is a series of programs prior to the start of classes that help new students become a part of the learning community. At orientation, students have a chance to learn about campus life experiences and opportunities; tour the campus; make connections with WSU faculty, staff, current students, and other new students; and participate in a community service project.

Degree-bound Students: Because orientation and educational planning are not preludes to education, but rather are a part of college education itself, new students entering directly from high school and all first-semester degree-bound students with fewer than 24 transfer hours are required to complete Shocker Connection: Advising and Enrollment. After new students have met with their academic advisor who helps them build their class schedule, consider career or life goals, register for classes and obtain their Shocker Card, they are expected to attend orientation. Information about advising, enrollment, and orientation is sent by the Office of Admissions-Orientation to all students who have been admitted to the University.

Non-degree-bound Students: The Shocker Connection process, including orientation activities, is available and recommended, for non-degree-bound students. LAS-1100A, Returning Adult Seminar, a class designed for adults who have been out of school for one year or more, is also recommended. Contact the LAS Advising Center, (316) 978-3095 or advising.wichita.edu, for more information about the seminar.

In addition to the Shocker Connection process, new students are encouraged to enroll in a freshman seminar course offered in each college. This course equips students with knowledge and skills about how to be successful in their academic careers. See Student Academic Success, page 11.

For more information about Shocker Connection Orientation, contact the Office of Admissions-Orientation, (316) 978-3095.

Academic Advising
Academic advising is a key element in students' success. The location of the different academic advising offices that serve students are outlined in the adjoining box.

Where to Go for Academic Advising

Degree-Bound - Major Decided

<table>
<thead>
<tr>
<th>Business</th>
<th>College of Business</th>
</tr>
</thead>
<tbody>
<tr>
<td>W. Frank Barton</td>
<td>College of Business</td>
</tr>
<tr>
<td>School of Business</td>
<td>Business.wsu.edu</td>
</tr>
<tr>
<td>114 Clinton Hall</td>
<td>316 WSU-3245</td>
</tr>
<tr>
<td>(316) WSU-3245</td>
<td>business.wsu.edu</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Education</th>
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<tr>
<td>Education Center</td>
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<tr>
<td>107 Curtin</td>
<td>316 WSU-3300</td>
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<td>education.wsu.edu</td>
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<table>
<thead>
<tr>
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<th>College of Engineering</th>
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</thead>
<tbody>
<tr>
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<td>College of Engineering</td>
</tr>
<tr>
<td>Engineering</td>
<td>Engineering.wsu.edu</td>
</tr>
<tr>
<td>100 Wallace Hall</td>
<td><a href="http://www.engr.wichita.edu">www.engr.wichita.edu</a></td>
</tr>
<tr>
<td>(316) WSU-3400</td>
<td></td>
</tr>
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Degree-Bound - Exploratory or Non-degree-Bound

<table>
<thead>
<tr>
<th>LAS Advising Center</th>
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</thead>
<tbody>
<tr>
<td>115 Grace Willie Hall</td>
<td>115 Grace Willie Hall</td>
</tr>
<tr>
<td>(316) WSU-3700</td>
<td>(316) WSU-3700</td>
</tr>
<tr>
<td>advising.wichita.edu</td>
<td>advising.wichita.edu</td>
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Graduate Students

<table>
<thead>
<tr>
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<th>Graduate School</th>
</tr>
</thead>
<tbody>
<tr>
<td>107 Jardine Hall</td>
<td>107 Jardine Hall</td>
</tr>
<tr>
<td>(316) WSU-3095</td>
<td>(316) WSU-3095</td>
</tr>
<tr>
<td>web.wichita.edu/gradsch</td>
<td>web.wichita.edu/gradsch</td>
</tr>
</tbody>
</table>
Housing and Residence Life

On-campus housing is available for more than 1,000 students in Fairmount Towers, Brennan Hall, and Wheatshacker Apartments. Housing options include an honors hall, a fine arts floor, smoke-free floors, coed floors, suite-style residence hall rooms, and a variety of apartment units.

Because research nationwide has repeatedly shown that freshmen who live on campus are more successful academically than freshmen who do not live on campus, and because Wichita State University is committed to students and student success, WSU requires all incoming freshmen to live on campus in designated University housing. Freshmen live their first two semesters in our traditional residence hall, Fairmount Towers, unless they are exempted from living on campus. All other students may choose their own accommodations; however, University housing is highly recommended.

Exceptions to the freshman residency requirement are made for freshmen who are:
1. 21 years old or older
2. Married
3. Living with a parent, legal guardian, grandmother, uncle, or aunt in Sedgwick County
4. Living in official Greek housing

All freshmen who would like to be exempted from the residency requirement—including those who fall into one of the above categories—are required to complete and submit a Freshman Exemption Form. Exemptions will be reviewed by Housing and Residence Life and a written reply will be sent to those who requested an exemption.

Admission to Wichita State does not mean automatic room reservation. Each student admitted will receive information concerning housing from Housing and Residence Life. Students need to complete a contract and an application card and pay an application fee and prepayment/deposit to reserve a room or apartment. Students are encouraged to apply early since space is limited.

For more information, contact Housing and Residence Life, Wichita State University, 1845 Fairmount, Wichita, Kansas 67260-0141. (316) 978-3693. web.wichita.edu/housing

For Housing and Residence Life fees, see pages 13, 14, and 15 of the Catalog.

Wichita State University reserves the right to make policy adjustments where the situation demands and to change the residence of any student or deny or cancel residence accommodations of any student in cases where such action is deemed desirable.

Registration

Specific information regarding registration is given in the WSU Schedule of Courses published each semester and summer. Students may register in person, or through web registration on the Internet at the designated times.

Prior to registering for classes, all students should contact their academic advisor to assure they are taking the appropriate classes. Pre-registration for one semester normally begins about midway through the preceding semester. Registration is not complete without fee payment.

Registration and classes begin and end at varying times so it is important to consult the Schedule of Courses for details. For more information, check our Web site, www.wichita.edu/registrat.

Financial Information

Tuition and fees for Kansas residents cover less than one-third of the cost of an education at Wichita State. The remaining expenses are paid out of donations made to the WSU Foundation and from appropriations from the State of Kansas.

Kansas Residency requirements are described on page 37 of this Catalog.

Financial Assistance

Wichita State offers financial assistance through scholarships, federal and state supported programs, and employment. Students interested in any type of financial assistance should contact the University's Office of Financial Aid, 205 Jardine Hall, to see what assistance is available for their specific needs. Most financial assistance is based on financial need, but some scholarships are awarded without consideration of financial need.

Scholarships. The Board of Trustees of the University, in cooperation with the Kansas Board of Regents, administers a large number of scholarships and loans coming from endowed property and funds of the University.


Employment. Students enrolled in at least 6 hours may be eligible for part-time employment at the University. Federal work study employment is based on enrollment in at least 6 hours and demonstrated financial need. Students may find employment as academic assistants, clerical assistants, technical assistants, custodial or food service assistants, or library assistants. For information about student employment contact the Office of Career Services, 203 Grace Willie Hall.

Scholarships

Wichita State University has been fortunate to receive donations from past graduates, faculty, friends, and administrators of the University who wish to assist future graduates in financing their years at Wichita State University. Scholarships are funded through the proceeds of the gifts from these individuals, and play a vital role in the University's
Withdrawal and Financial Aid

A student's eligibility for student financial aid is based upon enrollment. The Higher Education Act of 1998 outlines rules which govern the return of Title IV federal financial aid funds disbursed to a student who completely withdraws from a period of enrollment.

These rules assume that a student "earns" his/her aid based on the time the student remains enrolled. "Unearned" aid, other than Federal Work-Study, must be returned. Unearned aid is the amount of financial aid received that exceeds the amount the student has earned.

During the first 60% of the enrollment period, a student "earns" aid in direct proportion to the length of time he/she remains enrolled. A student who remains enrolled beyond the 60% point earns all aid for the period.

Financial Aid Repayments

A reduction in hours may require repayment of financial aid received. Students should discuss possible reductions in class hours with the WSU Office of Financial Aid prior to finalizing a drop in hours. Students will be advised about how the drop may impact their financial aid.

Comprehensive Fee Schedule

Fees given in this Catalog were proposed for 2004-2005 and may be changed by the Kansas Board of Regents or the Kansas Legislature.

Basic Fees (Proposed)

Basic fees for on-campus regular enrollment and continuing education credit courses are:

<table>
<thead>
<tr>
<th>Type</th>
<th>Resident</th>
<th>Nonresident</th>
</tr>
</thead>
<tbody>
<tr>
<td>Undergraduate tuition*</td>
<td>$88.25</td>
<td>$336.70</td>
</tr>
<tr>
<td>Designated tuition for technology</td>
<td>1.15</td>
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</tr>
<tr>
<td>Designated tuition for library</td>
<td>1.15</td>
<td>1.15</td>
</tr>
<tr>
<td>Total tuition</td>
<td>$95.55</td>
<td>$344.00</td>
</tr>
</tbody>
</table>

*Tuition and fees are for the Fall and Spring semesters and Summer Session.

No tuition is charged to students enrolled in instructional programs for which the entire cost is financed by governmental or private agencies. Students enrolled in such programs must pay all required student fees.

The student fee, required of all students enrolled on the Wichita State University campus (City of Wichita and its contiguous industrial sites), supports the Educational Opportunity Fund ($4.40 per credit hour), student union, athletics, Heskett Center, bowling program, Student Health Services, forensics, Student Government Association, student publications, and other student activities.

Workshop and Off-Campus Fees

On-campus credit workshops cost $95.55 tuition and $20.20 student fees, both per credit hour, and $10.30 overhead. In addition, there is a $17 registration fee per semester and a parking fee of $5.30 per credit hour. A specific course fee of $115.55 (undergraduate) includes $20 Area fee or $164.50 (graduate; includes $28 Area fee) per credit hour. The fee is assessed for off-campus regular enrollment and continuing education credit courses or workshops. Non-credit workshop fees are based on costs.

Departmental or College Fees

Special departmental fees are charged as summarized below:

1. Students are required to reimburse the University for all of the cost of (a) excess breakage and wastage of materials and (b) materials in excess of those required for completion of course work.
2. Dance program fee (DANCE 201, 210, 301, 310, 401, 410, 501, and 510) $12 per semester for course
3. Engineering equipment and maintenance fee $14 per credit hour for engineering courses
4. Geology Field School—actual cost per semester
5. Kinesiology and Sport Studies (bowling) $50 per semester
6. Kinesiology and Sport Studies (bowling, KSS 2018) $10 per course
7. Kinesiology and Sport Studies (horseman-

ship) $125 per semester
8. Kinesiology and Sport Studies (scuba diving) $55 per semester
9. Kinesiology and Sport Studies (scuba trip) $770 per semester
10. Kinesiology and Sport Studies (accelerated open water diving fee) $159 per student
11. Kinesiology and Sport Studies (pool/bi-lards) $25 per semester
12. Kinesiology and Sport Studies (ice skating) $80 per semester
13. Kinesiology and Sport Studies (water sports) $125 per semester
14. Kinesiology and Sport Studies (golf West side) $45 per semester
15. Kinesiology and Sport Studies (safety and marksmanship) $125 per semester
16. Kinesiology and Sport Studies (CPR and first aid certification) $10 per certification
17. College of Health Professions
   a. Dental hygiene fee (per semester) $100/person
   b. Dental hygiene fee (per summer) $50/person
   c. Nursing entrance test fee $14/person
   d. Nursing testing fee $50/person
   e. Internship fee $15/person
   f. Resumption fee $5/person
   g. Application fee Dental hygiene $15/person
   h. Physical therapist assistant $20/person
   i. Medical technology $100/person
   j. Physical therapist assistant $100/person
   k. Physical therapy $20/person
   l. Physician assistant $100/person
   m. Acceptance fee Dental hygiene $100/person
18. W. Frank Barton School of Business
   a. Executive MBA (includes tuition, textbooks, materials, and administrative fees) $21,000/person

*Acceptance fees are due within 30 days after admission to the program and are nonrefundable. The fee will be applied toward the tuition of the first semester of the program.

Free Music Courses

During the academic school year, students enrolled in the following ensembles will not be charged tuition and fees.

Wind Ensemble
   MUS P 210B, 410B, and 710B

Orchestra
   MUS P 211A, 411A, and 711A
Library fines and lost materials—cost per fine schedule or cost of replacement of material plus a processing fee
Returned check fee........................................$30/check
Testing and credit by examination fee:
LAS Credit for Life Experience fee $15/credit hour
Credit by examination fee......................................$15/credit hour
Late registration fee (after end of regular registration period—20th day of term)..................$50
Musical Instrument Use fee......................................$15/semester
Art supplies:
All ART H, ART G 316, 317, ART S 959, 958, 912/course
ART F 145, ART E 150, 311, 360, 515, 750; ART G 335, 339, 434, 435, 437, 343, 493; ART S 350N, 405, 559, 565, 800, 880 (1 hour), 895........................................$27/course
ART S 370, 372, 380, 381, 570, 572, 573, 578, 580, 585, 870, 878, 879, 880, 888, 889........................................$72/course
Make-up Examination fee.....................................$5/test
Same day service fee at the Registrar's Office........................................$10/document
Career services:
Registration fee
Students......................................................$20/6 credit max.; $25/year
Non-students...............................................$55/6 credit max.; $50/year
Counseling
WSU students and alumni who have graduated in past two years will not be charged.
Family of WSU faculty/staff....................................$20/hour
Alumni.......................................................... $20/hour
Community people ..............................................$4/hour
Credit counseling.............................................$3/hour
Testing
Campbell Interest; Skill Survey..................................$15/test
Strong Interest Inventory......................................$15/test
Self-Directed Search..........................................$15/test
Missouri Card Test..............................................$20/test
Myers-Briggs Type Indicator ..................................$15/test

Parking Fees and Fines
Parking fees for students will be assessed at the rate of $5.30 per credit hour, per semester and summer session, not to exceed maximum of $49.30. Parking fines will be assessed as printed in the University’s parking regulations subsequent to the annual public hearing on such regulations.

Auditing Course Fees
Students pay the same tuition and fees per semester hour for audited courses as for credit courses.

Contracts and Compensatory Charges
The schedule of fees reported here does not limit the charges that may be collected under arrangements with other governmental or private agencies except that such arrangements may not provide for lesser charges. Tuition or other charges to more nearly cover actual costs of instruction are specifically authorized.

No tuition is charged to students enrolled in instructional programs for which the entire cost, including faculty, is financed by governmental or private agencies. Students enrolled in such programs on campus must pay all required student fees.

Department Cost-Recovery Fees
All departmental charges for specific goods and services (e.g., photocopy, optional instructional materials, placement office user fees, building use fees, optional attendance, summer orientation sessions, academic transcripts, etc.) not explicitly identified herein will be priced at an amount that approximates actual costs.

Student Health Services Fees
Certain fees for laboratory tests, inoculations, prescriptions, x-rays, physical examinations, and other procedures are charged to users of Student Health Services. These fees reflect direct charges to the University and every attempt is made to keep them below market cost.

A "no show" appointment fee of $5 will be charged each student who does not call at least thirty minutes in advance of their scheduled appointment to cancel their appointment.

Housing and Residence Life Fees
Housing rates at Wichita State University vary with the choice of facility and meal plan. Housing costs for Fairmount Towers, Brennan Hall, and Wheatshocker Apartments are listed below. The listed rates do not include a $35 nonrefundable application fee for non-continuous contractors. Payments must be made for Fairmount and Brennan before or during the payment of tuition and fees for the entire semester and no later than 5 p.m. the business day before classes begin. Contracts signed after classes begin require full payment with receipt of contract. Payment must be made in full even if financial assistance is not available at the time of registration. Wheatshocker Apartments have monthly payments. A $10 late fee will be charged if payment is not received by the fifth business day of each month. Rates include all utilities (water, gas, electricity), local telephone service, basic cable TV service, ethernet connection, and an activity fee. All facilities are air conditioned.

Rates are for fiscal year 2003. Rates may be changed by the Kansas Board of Regents.

Financial Assistance Room and Board, Students who receive any type of financial assistance (scholarships, Stafford or Perkins Loan, Pell Grant, SEOG, etc.) must apply their financial assistance first to tuition and fees and then to room and board until these obligations for the entire semester are completely met with the University. Housing bills must be paid in full at the time of registration even if financial assistance is not available at that time.
Students pay a $200 prepayment upon signing the contract. The prepayment is part of the contract amount, guarantees the reservation of the room and is included in the above rates.

2. Freshmen in Fairmount towers may choose any of the plans listed above except the 250-max or basic block plans.

3. Returning residents and new sophomores through graduate students in Fairmount Towers may choose any of the plans listed above.

4. All meal plans will include Shocker dollars or "max" meal money. Students may select a plan with $200 Shocker dollars ($100 per semester) or $300 Shocker dollars ($150 per semester). Sodexo has agreed to put in an additional $30 ($15 per semester) for those who select one of the "max 300" plans.

5. Block plans allow students to eat "x" number of meals out of the approximately 637 meals per academic year. Both of the block plans (250 and 350) allow students flexibility to choose how many meals per week they want to eat. For instance, if someone has a 250 block plan they may choose 250 meals out of all the meals served in the Fairmount Towers Cafe in one academic year. They will also be able to use their block meal plan to purchase meals for neighbors/family members. All block plans may be utilized as a meal exchange in Copperfield's at designated times.

6. All meals are served in the Fairmount Towers Cafe.

7. Shocker dollars may be used at the Fairmount Towers Cafe, Blimpie's, and food venues in the Rhatigan Student Center such as Copperfield's and Fast Break.

8. Shocker dollars or "max" meal money will expire on Aug. 10, 2005.

9. Fairmount Towers is scheduled to be used for Summer School Housing and Camps/Conferences.

10. Fairmount Towers is substance free (no alcohol, smoking, tobacco products, or other substances), except 6th floor North which allows smoking inside designated student rooms with the door shut.

11. A Fine Arts specialty housing floor will be offered in Fairmount Towers.

12. An Honors specialty housing floor will be offered in Fairmount Towers.

13. An Extended Quiet Hours floor will be offered in Fairmount Towers.

14. Students who cancel their contract before July 1 (December 1 for spring semester only contracts) will receive a 100% refund of their prepayment. Students who cancel their contract between July 1 and July 31 (December 1 and December 31 for spring semester only contracts) will receive a 50% refund of their prepayment. Students who cancel their contract after occupancy may be assessed a cancellation fee of $150 plus 50% of the remaining balance of the contract. The cancellation fee is subject to appeal. Refer to the Fairmount Towers and Brennan Hall contract for specific contract cancellation terms.

Brennan Halls II & III

<table>
<thead>
<tr>
<th>Plan Type</th>
<th>Double</th>
<th>Single</th>
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</thead>
<tbody>
<tr>
<td>19-max w/200 Shocker</td>
<td>$4,380</td>
<td>$5,580</td>
</tr>
<tr>
<td>19-max w/300 Shocker</td>
<td>$4,480</td>
<td>$5,680</td>
</tr>
<tr>
<td>19-max w/200 Shocker L</td>
<td>$4,580</td>
<td>$5,780</td>
</tr>
<tr>
<td>19-max w/300 Shocker L</td>
<td>$4,680</td>
<td>$5,880</td>
</tr>
<tr>
<td>15-max w/200 Shocker</td>
<td>$4,400</td>
<td>$5,600</td>
</tr>
<tr>
<td>15-max w/300 Shocker</td>
<td>$4,500</td>
<td>$5,700</td>
</tr>
<tr>
<td>15-max w/200 Shocker L</td>
<td>$4,600</td>
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<tr>
<td>15-max w/300 Shocker L</td>
<td>$4,700</td>
<td>$5,900</td>
</tr>
<tr>
<td>10-max w/200 Shocker</td>
<td>$4,190</td>
<td>$5,390</td>
</tr>
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<td>10-max w/300 Shocker</td>
<td>$4,290</td>
<td>$5,490</td>
</tr>
<tr>
<td>10-max w/200 Shocker L</td>
<td>$4,390</td>
<td>$5,590</td>
</tr>
<tr>
<td>10-max w/300 Shocker L</td>
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</tr>
<tr>
<td>350-block max w/200 Shocker</td>
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<td>$4,340</td>
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<td>350-block max w/200 Shocker L</td>
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<td>350-block max w/300 Shocker L</td>
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</tr>
<tr>
<td>250-block max w/200 Shocker</td>
<td>$3,740</td>
<td>$4,940</td>
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<td>250-block max w/300 Shocker</td>
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Shocker:

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<tr>
<td>L</td>
<td>$2,880</td>
<td>$4,080</td>
</tr>
</tbody>
</table>

1. Students pay a $200 prepayment upon signing the contract. The prepayment is part of the total contract amount, guarantees the reservation of the room and is included in the above rates.

2. Residents of Brennan Hall may choose from any of the thirteen meal plans listed above.

3. All meal plans will include Shocker dollars or "max" meal money. Students may select a plan with 200 Shocker dollars ($100 per semester) or 300 Shocker dollars ($150 per semester). Sodexo has agreed to put in an additional $30 ($15 per semester) for those who select one of the "max 300" plans.

4. Block plans allow students to eat "x" number of meals out of the approximately 637 meals per academic year. Each of the block plans (350, 250, and 150) allows students flexibility to choose how many meals per week they want to eat. For instance, if someone has a 250 block plan they may choose any 250 meals out of all the meals served in the Fairmount Towers Cafe in one academic year. They will also be able to use their block meal plan to purchase meals for friends/family members. All block plans may be utilized as a meal exchange in Copperfield's at designated times.

5. All meals are served in the Fairmount Towers Cafe.

6. Shocker dollars may be used at the Fairmount Towers Cafe, Blimpie's, and food venues in the Rhatigan Student Center such as Copperfield's and Fast Break.

7. Shocker dollars or "max" meal money will expire on Aug. 10, 2005.

8. Room size: S (standard) rooms are 398-449 square feet; L (large) rooms are 501-554 square feet. All rooms were designed and furnished for two students.

9. Students who cancel their contract before July 1 (December 1 for spring semester only contracts) will receive a 100% refund of their prepayment. Students who cancel their contract between July 1 and July 31 (December 1 and December 31 for spring semester only contracts) will receive a 50% refund of their prepayment. Students who cancel their contract after occupancy may be assessed a cancellation fee of $150 plus 50% of the remaining balance of the contract. The cancellation fee is subject to appeal. Refer to the Fairmount Towers and Brennan Hall contract for specific contract cancellation terms.

Wheatsheater Apartments

<table>
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<tr>
<th>Plan Type</th>
<th>Monthly</th>
<th>Acad.</th>
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</thead>
<tbody>
<tr>
<td>Three bedroom, two bath (5)</td>
<td>$860</td>
<td>$7,906</td>
</tr>
<tr>
<td>Two bedrooms, two bath (4)</td>
<td>$1,068</td>
<td>$9,819</td>
</tr>
<tr>
<td>Four bedrooms, one bath (3)</td>
<td>$850</td>
<td>$7,814</td>
</tr>
<tr>
<td>1/2 suite (one apt.)</td>
<td>$425</td>
<td>$3,907</td>
</tr>
<tr>
<td>1/4 unit (with or without window)</td>
<td>$225</td>
<td>$2,068</td>
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<tr>
<td>Large Corner four bedrooms (2)</td>
<td>$965</td>
<td>$8,872</td>
</tr>
<tr>
<td>Large 1/2 suite (one apt.)</td>
<td>$540</td>
<td>$4,965</td>
</tr>
<tr>
<td>1/4 unit of large apt.</td>
<td>$270</td>
<td>$2,482</td>
</tr>
<tr>
<td>Small 1/2 suite (one apt.)</td>
<td>$425</td>
<td>$3,907</td>
</tr>
<tr>
<td>1/4 unit (with or without window)</td>
<td>$225</td>
<td>$2,068</td>
</tr>
</tbody>
</table>
1. Students pay a $100 deposit upon signing the contract. The deposit is refundable, but subject to damage, cancellation, and/or check-out charges.
2. Returning Wheatshocker residents are not required to have a board plan, but may choose any of the plans offered for Fairmont Towers and Brennan Hall residents.
3. New residents of Wheatshocker will be required to select a board plan and may choose any of the plans offered for Fairmont and Brennan residents.
4. Each room in Wheatshocker is rented out as a complete unit. Upon contracting, if a student does not have a roommate to split the costs, he/she is responsible for the complete monthly rent (for the life of the contract), except with layouts 3 and 2. HRL will match roommates and consolidate when necessary.
5. Studio apartments will be reserved for married or family housing.
6. Furnished (layout 3) 1/4 units are $20 extra per month; furnished 1/2 units are $40 extra per month.
7. Students who cancel their contract less than thirty days before their contract start date forfeit their deposit. Students who cancel their contract after occupancy may be assessed a cancellation fee of $150 plus 50% of the remaining balance. The cancellation fee is subject to appeal. Refer to the Wheatshocker contract for specific cancellation terms.

Summer Session Housing

The listed rates do not include a $35 nonrefundable application fee for non-continuous contractors.

Fairmont Towers

<table>
<thead>
<tr>
<th>Layout</th>
<th>Double</th>
<th>Single</th>
</tr>
</thead>
<tbody>
<tr>
<td>Presession (two weeks)</td>
<td>$282</td>
<td>$338</td>
</tr>
<tr>
<td>Four weeks</td>
<td>$561</td>
<td>$673</td>
</tr>
<tr>
<td>Eight weeks</td>
<td>$1,111</td>
<td>$1,355</td>
</tr>
</tbody>
</table>

1. Students pay a $100 prepayment upon signing the contract. The prepayment is part of the contract amount, guarantees the reservation of the room, and is included in the above rates.
2. Fairmont Towers is scheduled to be used for summer school housing and camps/conferences.
3. Students will have a block meal plan with Shocker dollars. Total number of meals and total number of Shocker dollars depends on the contract length. Pre-session students get a 20-block plan with $10 in Shocker dollars; four-week session students get a 40-block plan with $20 in Shocker dollars; eight-week session students get an 80-block plan with $40 in Shocker dollars.
5. During summer construction, meals will be served in Rhatigan Student Center.
6. Rates include all utilities, basic cable television, ethernet connections, local telephone service, and an activity fee. A $10 late fee will be charged if payment is not received by the fifth business day after the due date. All rooms are air-conditioned.

Period of Payment

All semester fees, including laboratory fees, must be paid in full at registration.

Assessment and Collection

The University Controller is responsible for the assessment and collection of fees. The Controller, two associate deans, the affirmative action officer, and a representative of the Vice President for Student Affairs constitute the Board of Appeals for students who believe their residency status has been incorrectly assessed. The decision of this committee is final. Forms to initiate this process are available in the Registrar's office.

Unpaid Fees

Students who leave Wichita State University without meeting their financial obligations to the University may have their records impounded by the Registrar. Their transcripts or diplomas will not be issued unless their account is cleared and they may not enroll for a new term unless all fees are paid.

Students who are eligible to graduate but who still have unpaid tuition balances will not graduate until those fees are paid.

Drop/Add Fee Policy

Students who drop credits and do not add credits will be charged the proportional percentage based on the week they drop the credits. This remains the same as reflected in the Schedule of Courses.

Students who drop and add credits will not be required to pay additional tuition/fees if the following conditions are met:
- There is an equal number of credit hours added as are being dropped.
- A course that has been added in accordance with parts a and b, and is subsequently dropped, will retain a 50% refund percentage as the original course dropped.

Refund Policy—Complete and Partial Withdrawal

To withdraw completely from the University, students must process drop forms for all classes in which they are enrolled and surrender their Certificate of Registration.

Students are eligible for refunds as published in the Schedule of Courses each semester.

In short-term classes, students will have the first class period to determine if the course is suitable for them. Students who register late or fail to attend the first class period in short-term classes will not be eligible for 100% refunds according to the policy. If a short-term class begins on Friday night, Saturday, or Sunday, students will have until the end of the first business day to drop the course. In order to receive a 100% refund for the course, the student must provide documentation that he/she did not attend more than four hours of the class.

For classes that begin at times other than the regular term semester, the "first class day" refers to the first day the class meets; thereafter, the "day" refers to the business day.

No one other than the Controller's Office in 201 Jardine Hall or the Tuition Refund Board of Appeals is authorized to determine the amount of tuition refund a student will receive.

Students who, because of extenuating circumstances, seek a higher refund than is available by policy, must petition the Tuition Refund Board of Appeals. Petition forms are available in the Controller's Office. The petition must be filed with appropriate documentation in the Controller's Office within the term the course was taken.

Students who may have received approval from the University Exceptions Committee for a late withdrawal from a previous semester are not eligible by policy for a tuition refund. These are separate issues and decisions.

Federal regulations may require students attending the University for the first time and receiving student financial aid (grants, loans, or work assistance) under Title IV or whose parent(s) receive(s) a loan under Title IV on behalf of the students who withdraw fully from the University will be subject to a different refund policy. Contact the Controller's Office for details.

Military Refund Policy

Students serving in the National Guard or Reserves who are called to active duty during an academic term are entitled to receive a full refund of tuition and fees. Students who are drafted and must report for active duty during an academic term are entitled to receive a full refund of tuition and fees. All refunds are subject to presentation of official documentation. Students who volunteer for military service will be subject to the University's non-military refund policy. Room and board charges will be prorated to the extent that services have been provided.

Tuition Waiver for Kansas Teachers of the Year

Kansas teacher of the Year recipients are allowed to enroll tuition-free in up to 9 credit hours annually provided they are actively pursuing a teaching career in Kansas.
### General Education Program Requirements • Worksheet

<table>
<thead>
<tr>
<th>Basic Skills*</th>
<th>ENGL 100 or 101</th>
<th>ENGL 102</th>
<th>COMM 111</th>
<th>MATH 111 or 131**</th>
</tr>
</thead>
<tbody>
<tr>
<td>Complete each with grade of C or higher</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

All Basic Skills requirements of the General Education program must be met by undergraduates enrolled in a Wichita State University bachelor's degree program within their completion of the first 48 credits toward the degree, not including guest student credit and AP credit. Students who do not meet this requirement will be allowed to complete the Basic Skills requirement in the first semester of enrollment subsequent to their having reached the 48-credit plateau. Students who transfer to the University with at least 48 credit hours earned from an accredited institution but who have not completed Wichita State University's basic skills requirements shall have two semesters of enrollment from their first enrollment to pass basic skills classes with the required C-or-better grade. Students who fail to pass Basic Skills courses in a timely fashion as defined above shall not be permitted further enrollment at the University except for enrollment in the basic skills courses.

<table>
<thead>
<tr>
<th>Division</th>
<th>Introductory Course</th>
<th>Further Study/I&amp;P+ Course</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fine Arts</td>
<td>Humanities</td>
<td>Fine Arts (I)</td>
</tr>
<tr>
<td>Art History</td>
<td>Communication***</td>
<td></td>
</tr>
<tr>
<td>Dance (History)</td>
<td>English***</td>
<td></td>
</tr>
<tr>
<td>Musicology-Composition</td>
<td>History</td>
<td></td>
</tr>
<tr>
<td>Theatre</td>
<td>Modern and Classical Languages and Literatures</td>
<td>Humanities (2)</td>
</tr>
<tr>
<td></td>
<td>Philosophy</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Religion</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Women's Studies</td>
<td></td>
</tr>
</tbody>
</table>

| Social and Behavioral Sciences | | |
| Anthropology | Geography | One Further Study or Issues & Perspectives course in same discipline as one of the Introductory courses the student has taken, but not in the student's major. |
| Criminal Justice | Political Science | |
| Economics | Psychology | |
| Entrepreneurship | Sociology | |
| Ethnic Studies | | |

| Mathematics and Natural Sciences | | |
| One class must be from biology, chemistry, geology, or physics | | |
| Biology | Geology | |
| Biological | Mathematics/Statistics*** | | |
| Anthropology | Physics | | |
| Chemistry | Public Health Sciences | | |
| Computer Science | | |

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* Placement into math and English Basic Skills courses is determined by ACT scores, high school background, or departmental placement exam.
** MATH 111 or any advanced math course that requires MATH 111 or 112 as a prerequisite. MATH 131 does not fulfill the prerequisite for any further math course. MATH 131 does not meet degree requirements in all colleges.
*** Excluding Basic Skills.
* Students must take one Issues and Perspectives (I&P) course; no more than two I&P courses will count for general education credit.
Additional College/School Requirements

Academic advising is an important part of your undergraduate experience. Please meet with an advisor in the college of your major before registering for classes each semester. These individuals will help you understand your undergraduate experience and assist you in selecting classes that meet your needs and requirements for the degree and major.

Business requires MATH 144 or 242 and ECON 201 and 202. MATH 111 or 112 meets the prerequisite for MATH 144.

Education requires PSY 111. All teachers who entered WSU as freshmen since Fall 1995 are required to take STAT 370, Educational Statistics, or a higher level math course. MATH 111 is a prerequisite for STAT 370.

Engineering students are required to take MATH 242, PHYS 315, and CHEM 111. Students have two options for completing the General Education Program requirements in Fine Arts and Humanities and Social and Behavioral Sciences. Fine Arts students majoring in art education, music education, and special education music are required to take 3 hours of literature, as well as PSY 111. All teachers who entered WSU as freshmen since Fall 1995 are required to take STAT 370, Educational Statistics, or a higher level math course.

Health Professions requirements are listed by major. General Education requirements vary.

Liberal Arts and Sciences requires the following:
- English or foreign language literature (Humanities)
- HIS 131, 132 (Humanities) or POL 201 (Sociology)
- One biology course and one physical science course; one must have a laboratory experience
- Foreign language in all BA degrees and the BS degree in criminal justice.

Exploratory students meet with an academic advisor in the Liberal Arts Education Advising Center. Students who have not declared a major may want to take a variety of courses to help clarify interests and identify possible majors and remain academically flexible.

All courses which qualify for general education credit have a prefix that includes the Catalog. General education courses offered in a given semester are listed in the Schedule of Courses.

To be eligible, a person must be (1) a past or present recipient of the Kansas Teacher of the Year Award under the program administered by the Kansas Department of Education, and (2) employed as a teacher in an educational institution accredited by the Kansas Department of Education. A list of persons eligible for this tuition waiver is on file in the Board of Education office.

Student Fee Waivers

Student fees shall be waived for all Wichita State University employees who have full-time appointments. Student fees shall be waived for adjunct faculty members, lecturers, and benefits-eligible employees who do not have full-time appointments and are not carrying full-time loads (undergraduate 12 hours, graduate 9 hours). These University employees must have an appointment for the semester in which the student fee waiver is applicable.

Student fees shall be waived for enrolled students who are working their cooperative education job or who are performing a required clinical rotation or internship off the WSU campus (defined as the City of Wichita and its contiguous industrial sites) for the entire semester.

Student employees and graduate assistants are not eligible for student fee waivers.

Senior Citizen Fee Waiver

In accordance with the Kansas Board of Regents' policy, students who are 60 years of age or older may enroll as auditors (non-credit) in any academic course—in which space is available and for which they have the prerequisites—which pay tuition and student fees. Parking fees will be assessed at the regular student credit hour charge. Senior citizens must present a Medicare card or driver's license to validate age. A special senior citizen registration is held after the first day of classes (see the Schedule of Courses).

Senior citizens desiring college credit or the assurance of space in specific courses may enroll and pay toll fees during regular registration. Senior citizens who have not enrolled at WSU before must complete an Application for Admission and pay the $15 application fee before registering.

Senior Citizens who want to participate in one or more of the Kinesiology and Physical Activity and Aging sections, 152 Section, have the following options:
1. Purchase a membership in the Center for Physical Activity and Aging (CPAA), $50 per student
2. Those who want more complete access to the Heskett Center, and Abilah Library privileges, can join the CPAA and enroll as auditors, $25 per student (the cost includes parking fees)

Members of the CPAA are also eligible for functional assessment testing each semester of their ability to perform daily living activities, an annual bone density evaluation, and an educational and informative monthly newsletter.

General University Academic Programs and Areas

General Education Program

The General Education Program seeks to provide each student with a body of knowledge that is both a broad foundation for his or her major field of study, and also the beginning of what is necessary to become a genuinely educated person. The General Education Program provides the opportunity for all students to grow in their knowledge and appreciation of the rich variety of human achievements in the arts, humanities, and sciences.

Goals of General Education
- to understand the humanities and how they explore the complexity of the human experience
- to understand and appreciate various art forms
- to understand human functioning and behavior in individuals, groups, institutions, and societies
- to understand the natural sciences, their application in technological innovation and development, and their impact on society
- to study and apply basic mathematical principles
- to study and apply principles of written and oral communication

General Education Outcomes
- communicate clearly and effectively
- analyze and assess information utilizing a variety of information and people resources
- problem solve and make effective decisions in personal, career, and community arenas
- motivate people and develop collaborative work environments
- articulate issues, options, and consequences of decisions
- utilize technology to solve problems and facilitate tasks
- function by examined ethical standards and principles
- appreciate and apply understandings of the fine arts, humanities, social sciences, natural sciences, and mathematics to life, career, and community challenges
- understand diverse cultures and relate well with individuals from these cultures
- actively engage in the betterment of the community in which they live.

Significant development of oral and written communication, mathematical, and library research skills is expected of all Wichita State University graduates.

Students transferring to Wichita State University under the Transfer Admission Agreement of the Kansas Public Community Colleges and State Universities are considered to have met the requirements of Wichita State University General Education Program as determined by transcript evaluation. This refers only to students with previous college credit and is not applicable to entering freshmen.

Courses within a student's major department shall not count in fulfilling general education requirements.
### Introductory Courses

An introductory course meets general education objectives and serves as an introduction to the discipline.

### Fine Arts Courses

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>ARTH 121</td>
<td>Survey of Western Art: Ancient</td>
</tr>
<tr>
<td>ARTH 122</td>
<td>Survey of Western Art: Renaissance</td>
</tr>
<tr>
<td></td>
<td>and Baroque</td>
</tr>
<tr>
<td>ART H 124</td>
<td>Survey of Western Art: Modern</td>
</tr>
<tr>
<td></td>
<td>DANCE 140, Art of the Dance</td>
</tr>
<tr>
<td></td>
<td>HNRS 104, Seminar I: Fine Arts</td>
</tr>
<tr>
<td>MUS C 160</td>
<td>The Heritage of Western Music</td>
</tr>
<tr>
<td>MUS C 162</td>
<td>World Music</td>
</tr>
<tr>
<td>THEA 143</td>
<td>The Art of the Theater</td>
</tr>
<tr>
<td>THEA 200</td>
<td>Experience the Performing Arts</td>
</tr>
<tr>
<td>THEA 260</td>
<td>History of Musical Theater</td>
</tr>
</tbody>
</table>

### Humanities Courses

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>COMM 190</td>
<td>Introduction to Human Communication</td>
</tr>
<tr>
<td>ENGL 230</td>
<td>Exploring Literature</td>
</tr>
<tr>
<td>ENGL 232</td>
<td>Themes in American Literature</td>
</tr>
<tr>
<td>FREN 210</td>
<td>Intermediate French (P)</td>
</tr>
<tr>
<td>GERM 220</td>
<td>Continuing German (P)</td>
</tr>
<tr>
<td>GREEK 223</td>
<td>Intermediate Greek (P)</td>
</tr>
<tr>
<td>HIST 103</td>
<td>World Civilization since 1500</td>
</tr>
<tr>
<td>HIST 104</td>
<td>Western Civilization to 1648</td>
</tr>
<tr>
<td>HIST 105</td>
<td>Western Civilization since 1648</td>
</tr>
<tr>
<td>HIST 131</td>
<td>History of the USA: Colonial to 1865</td>
</tr>
<tr>
<td>HIST 132</td>
<td>History of the USA since 1865</td>
</tr>
<tr>
<td>HNRS 105</td>
<td>Seminar I: Humanities</td>
</tr>
<tr>
<td>HNRS 131</td>
<td>Seminar II: Humanities</td>
</tr>
<tr>
<td>LATIN 223</td>
<td>Intermediate Latin (P)</td>
</tr>
<tr>
<td>LING 151</td>
<td>The Nature of Language</td>
</tr>
<tr>
<td>PHIL 100</td>
<td>The Meaning of Philosophy</td>
</tr>
<tr>
<td>PHIL 125</td>
<td>Introductory Logic</td>
</tr>
<tr>
<td>PHIL 144</td>
<td>Moral Issues</td>
</tr>
<tr>
<td>REL 110</td>
<td>Old Testament</td>
</tr>
<tr>
<td>REL 115</td>
<td>New Testament</td>
</tr>
<tr>
<td>RUSS 210</td>
<td>Intermediate Russian (P)</td>
</tr>
<tr>
<td>SPAN 210</td>
<td>Intermediate Spanish (P)</td>
</tr>
<tr>
<td>WOM S 190</td>
<td>The American Woman in Popular Culture</td>
</tr>
<tr>
<td>WOM S 287</td>
<td>Women in Society: Social Issues</td>
</tr>
</tbody>
</table>

### Social and Behavioral Sciences Courses

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>ANTH 100</td>
<td>American Culture</td>
</tr>
<tr>
<td>ANTH 102</td>
<td>Cultural Anthropology</td>
</tr>
<tr>
<td>ANTH 103</td>
<td>Introduction to Archaeology</td>
</tr>
<tr>
<td>CJ 191</td>
<td>Introduction to Criminal Justice</td>
</tr>
<tr>
<td>ECON 201</td>
<td>Principles of Macroeconomics</td>
</tr>
<tr>
<td>ETH S 100</td>
<td>Introduction to Ethnic Studies</td>
</tr>
<tr>
<td>ETH S 210</td>
<td>Fundamentals of Cross-Cultural</td>
</tr>
<tr>
<td></td>
<td>Communication</td>
</tr>
<tr>
<td>GEOG 125</td>
<td>Principles of Human Geography</td>
</tr>
<tr>
<td>GEOG 210</td>
<td>Introduction to World Geography</td>
</tr>
<tr>
<td>HNRS 106</td>
<td>Seminar I: Social and Behavioral</td>
</tr>
<tr>
<td>HNRS 152</td>
<td>Seminar II: Social and Behavioral</td>
</tr>
<tr>
<td></td>
<td>Sciences (Introduction to Social and</td>
</tr>
<tr>
<td></td>
<td>Behavioral Sciences Courses,</td>
</tr>
<tr>
<td></td>
<td>continued)</td>
</tr>
<tr>
<td>POL S 121</td>
<td>American Politics</td>
</tr>
<tr>
<td>POL S 226</td>
<td>Comparative Politics</td>
</tr>
<tr>
<td>PSY 111</td>
<td>General Psychology</td>
</tr>
<tr>
<td>SOC 111</td>
<td>Introduction to Sociology</td>
</tr>
</tbody>
</table>

### Mathematics and Natural Sciences Courses

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>ANTHR 101</td>
<td>Biological Anthropology</td>
</tr>
<tr>
<td>BIOI 103</td>
<td>Microbes and You</td>
</tr>
<tr>
<td>BIOI 106</td>
<td>The Human Organism</td>
</tr>
<tr>
<td>BIOI 107</td>
<td>The Human Organism: Laboratory</td>
</tr>
<tr>
<td>BIOI 210</td>
<td>General Biology I (P)</td>
</tr>
<tr>
<td>CHEM 101</td>
<td>The Science of Chemistry</td>
</tr>
<tr>
<td>CHEM 103</td>
<td>General Chemistry</td>
</tr>
<tr>
<td>CHEM 111</td>
<td>General Chemistry</td>
</tr>
<tr>
<td>CS 105</td>
<td>An Introduction to Computers</td>
</tr>
<tr>
<td></td>
<td>and their Applications</td>
</tr>
<tr>
<td>CS 210</td>
<td>Introduction to Computer Science</td>
</tr>
<tr>
<td>GEOL 102</td>
<td>Earth Science and the Environment</td>
</tr>
<tr>
<td>GEOL 111</td>
<td>General Geology</td>
</tr>
<tr>
<td>HNRS 107</td>
<td>Seminar I: Mathematics and</td>
</tr>
<tr>
<td></td>
<td>Natural Sciences</td>
</tr>
<tr>
<td>HNRS 153</td>
<td>Seminar II: Mathematics and</td>
</tr>
<tr>
<td></td>
<td>Natural Sciences</td>
</tr>
<tr>
<td>MATH 144</td>
<td>Business Calculus (P)</td>
</tr>
<tr>
<td>MATH 242</td>
<td>Calculus I (P)</td>
</tr>
<tr>
<td>PHYS 111</td>
<td>Introductory Physics</td>
</tr>
<tr>
<td>PHYS 131</td>
<td>Physics for Health Sciences</td>
</tr>
<tr>
<td>PHYS 195</td>
<td>Introduction to Modern Astronomy</td>
</tr>
<tr>
<td>PHYS 213</td>
<td>General College Physics I</td>
</tr>
<tr>
<td></td>
<td>(without calculus)</td>
</tr>
<tr>
<td>PHYS 313</td>
<td>University Physics I (with calculus)</td>
</tr>
<tr>
<td>PHYS 315</td>
<td>University Physics I Lab</td>
</tr>
<tr>
<td>PHYS 316</td>
<td>University Physics I Lab II</td>
</tr>
<tr>
<td>STAT 370</td>
<td>Elementary Statistics (P)</td>
</tr>
</tbody>
</table>

### Further Study Courses

A further study course is taken in a discipline once a student has completed an introductory course in the same discipline.

### Fine Arts Courses

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>ART H 322</td>
<td>Medieval Art I</td>
</tr>
<tr>
<td>ART H 323</td>
<td>Medieval Art II</td>
</tr>
<tr>
<td>ART H 421</td>
<td>Greek Art and Architecture</td>
</tr>
<tr>
<td>ART H 422</td>
<td>Roman Art and Architecture</td>
</tr>
<tr>
<td>ART H 521</td>
<td>Italian Renaissance</td>
</tr>
<tr>
<td>ART H 523</td>
<td>18th and 19th Century European Art</td>
</tr>
<tr>
<td>ART H 525</td>
<td>20th Century Art before 1945</td>
</tr>
<tr>
<td>ART H 526</td>
<td>Art since 1945</td>
</tr>
<tr>
<td>DANCE 225</td>
<td>Survey of Dance History</td>
</tr>
<tr>
<td>DANCE 315</td>
<td>Music for Dance (P)</td>
</tr>
<tr>
<td>FA 301</td>
<td>An Introduction to Entrepreneurship</td>
</tr>
<tr>
<td></td>
<td>in the Fine Arts</td>
</tr>
</tbody>
</table>

### Humanities Courses

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>COMM 221</td>
<td>Oral Interpretation</td>
</tr>
<tr>
<td>COMM 302</td>
<td>Interpersonal Communication</td>
</tr>
<tr>
<td>COMM 311</td>
<td>Persuasion (P)</td>
</tr>
<tr>
<td>COMM 312</td>
<td>Nonverbal Communication (P)</td>
</tr>
<tr>
<td>COMM 313</td>
<td>Argumentation and Advocacy</td>
</tr>
<tr>
<td>COMM 430</td>
<td>Communication Research and Inquiry</td>
</tr>
<tr>
<td>COMM 535</td>
<td>Communication Analysis and Criticism (P)</td>
</tr>
<tr>
<td>ENGL 275</td>
<td>Studies in Popular Literature</td>
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<td>ENGL 315</td>
<td>Introduction to English Linguistics</td>
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<td>ENGL 320</td>
<td>The Nature of Drama</td>
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<td>ENGL 330</td>
<td>The Nature of Fiction</td>
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<td>ENGL 340</td>
<td>Major Plays of Shakespeare</td>
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<td>ENGL 345</td>
<td>Studies in Comparative Literature</td>
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<td>ENGL 360</td>
<td>Major British Writers I</td>
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<td>Major British Writers II</td>
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<td>American Writers of the 19th Century</td>
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<td>ENGL 365</td>
<td>African-American Literature</td>
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<td>FREN 223</td>
<td>Intermediate French Readings I (P)</td>
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<td>FREN 300</td>
<td>Intermediate French Readings II (P)</td>
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<td>MCLL (FRN)</td>
<td>French Literature in English</td>
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<td>the Caribbean in English Translation</td>
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<td>GERM 223</td>
<td>Intermediate German I (P)</td>
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<td>GERM 344</td>
<td>Intermediate German II (P)</td>
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<td>GREEK 224</td>
<td>Intermediate Greek (P)</td>
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<td>HIST 306</td>
<td>The US Century: Decades of Change</td>
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<td>HIST 311</td>
<td>Colonial Latin America</td>
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<td>HIST 312</td>
<td>Modern Latin America</td>
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<td>HIST 314</td>
<td>English History II</td>
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<td>HIST 317</td>
<td>The Holocaust</td>
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<td>HIST 320</td>
<td>Russian History Survey</td>
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<td>HIST 321</td>
<td>The Vietnam Conflict</td>
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<td>HIST 332</td>
<td>Ethnic America, ca. 1500-1924</td>
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<td>HIST 333</td>
<td>Ethnic America in the 20th Century</td>
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<td>HIST 340</td>
<td>World War II</td>
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<td>HIST 357</td>
<td>Women in the Ancient World</td>
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<td>HIST 362</td>
<td>The Roman World</td>
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<td>HIST 501</td>
<td>The American Colonies</td>
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<td>HIST 502</td>
<td>The American Revolution and Early</td>
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<td>Republic</td>
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<td>HIST 503</td>
<td>Age of Jefferson and Jackson</td>
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<td>HIST 504</td>
<td>Civil War</td>
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<tr>
<td>HIST 507</td>
<td>U.S. History: 1900 to 1945</td>
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ANTHR 235, Archaeology of North America
ANTHR 344, Ecological Anthropology
ANTHR 388, Cognitive Anthropology
ANTHR 506, Peoples of the Pacific
ANTHR 508, Ancient Civilizations of the Americas (P)
ANTHR 511, The Indians of North America (P)
ANTHR 523, China
ANTHR 516, Japanese People and Culture
ANTHR 522, Art and Culture (P)
ANTHR 528, Medical Anthropology
ANTHR 611, Southwestern Archaeology (P)
ANTHR 613, Archaeology of the Great Plains (P)
CJ 351, The Victim in Criminal Justice
CJ 355, Special Populations in the Criminal Justice System
CJ 394, Courts and Judicial Systems
CJ 455, Crime Prevention
CJ 513, Violent Crime
CJ 518C, Criminal Justice & Crime in Film
CJ 593, Criminal Causation and Criminal Justice Policy
CJ 652, Juvenile Justice and Social Policy
ECON 202, Principles of Microeconomics
ETH S 330, Ethnic America, ca 1500-1924
ETH S 331, The Black Family
ETH S 332, The Native American
ETH S 333, Issues in the Chicano Community
ETH S 334, Ethnic America in the 20th Century
ETH S 355, Special Populations in the Criminal Justice System
ETH S 360, Dealing with Diversity
ETH S 361, Prominent Ethnic People in the Making of America
ETH S 512, Aging and Ethnicity
ETH S 532, Women in Ethnic America
GEOG 235, Meteorology (P)
GEOG 330, Geography of Latin America
GEOG 542, Geography of Europe
GEOG 525, Geology of Earth
GERON 512, Aging and Ethnicity
POL S 220, Introduction to International Relations
POL S 315, The Presidency
POL S 316, The Congress
POL S 318, Political Parties
POL S 319, State Government
POL S 320, Politics of Developing Areas
POL S 336, International Organizations
POL S 337, Causes of War and Peace
POL S 345, Classical Medieval Political Thought
POL S 358, American Political Thought
POL S 390, Special Topics in Political Science
POL S 444, Modern Political Theory
POL S 523, Government and Politics of Latin America
POL S 524, Politics of Modern China
POL S 533, US Foreign Policy
POL S 534, Problems in Foreign Policy
POL S 531, Public Law
POL S 552, Civil Liberties
PSY 302, Psychology of Learning (P)
PSY 304, Social Psychology (P)

PSY 316, Industrial Psychology (P)
PSY 322, Cognitive Psychology (P)
PSY 324, Psychology of Personality (P)
PSY 332, Psychology of Perception (P)
PSY 334, Developmental Psychology (P)
PSY 336, Alcohol Use and Abuse (P)
PSY 342, Psychology of Motivation (P)
PSY 402, Psychology of Consciousness (P)
PSY 404, Psychology of Aging (P)
PSY 406, Introduction to Community Psychology (P)
PSY 414, Child Psychology (P)
PSY 516, Drugs and Human Behavior (P)
PSY 522, Biological Psychology (P)
SOC 301, Computers and Society
SOC 315, Marriage and Families
SOC 320, Contemporary Social Problems (P)
SOC 322, Deviant Behavior (P)
SOC 325, Parenting
SOC 330, Social Inequality (P)
SOC 338, Health and Lifestyle (P)
SOC 350, Social Interaction (P)
SOC 513, Sociology of Aging (P)
SOC 515, Sociology of the Family (P)
SOC 516, Sociology of Gender Roles (P)
SOC 534, Urban Sociology (P)
SOC 539, Juvenile Delinquency (P)

Mathematics and Natural Sciences Courses
ANTHR 356, Human Variability and Adaptation (P)
Biol 509, Foundations of Human Heredity
Chem 112, General and Inorganic Chemistry (P)
Chem 514, Inorganic Chemistry (P)
Chem 523, Analytical Chemistry (P)
Chem 531, Organic Chemistry (P)
Chem 533, Elementary Organic Chemistry (P)
Chem 546, Physical Chemistry (P)
Chem 661, Introductory Biochemistry (P)
CS 300, Data Structures and Algorithms I
Geog 235, Meteorology (P)
Geol 302, Earth and Space Sciences
Geol 310, Oceanography
Geol 312, Historical Geology (P)
Geol 570, Botany (P)
Geol 574, Special Studies in Paleontology (P)
Math 243, Calculus II (P)
Physics 214, General College Physics II (P)
Physics 314, University Physics II (P)
Physics 395, Solar System Astronomy
Stat 460, Elementary Probability and Statistics (P)
Stat 571, Statistical Methods I (P)
Stat 572, Statistical Methods II (P)
Stat 576, Applied Nonparametric Statistical Methods (P)

Issues and Perspectives Courses
An issues and perspectives course is an interdisciplinary class or one that informs students of issues or problems from a disciplinary perspective. Students may take either a further study course in a discipline or an issues and perspectives course from the same disciplinary grouping. For example, an introductory
course and an issues and perspectives course are both from the social and behavioral sciences disciplines.

Fine Arts/Humanities Courses
ART E 303, Stimulating Creative Behavior
ART H 326, Architecture
ENGL 343, Great Plains Literature
GERM 341, Germany in the European Context
HIST 308, A History of Lost Civilizations
HIST 330, The Americans, Conflict and Consensus in the Development of American Society and Culture
HNRS 204, Seminar III: Fine Arts
HNRS 205, Seminar III: Humanities
MUS C 310, Interrelated Arts (P)
PHIL 300, Science and the Modern World
PHIL 302, Values and the Modern World
PHIL 385, Engineering Ethics
SCWK 541, Women, Children, and Poverty (P)
THEA 385, Theatre as a Mirror of Today's America
WOM S 541, Women, Children, and Poverty (P)
WOM S 586, Gender, Race, and Knowledge

Social and Behavioral Sciences Courses
HNRS 206, Seminar III: Social and Behavioral Sciences
HNRS 430, Seminar in Social and Behavioral Sciences
IB 333, International Business
LAS A 300, Global Issues
PA 326, Emerging Health Care Issues of the 21st Century
P ADM 400, Issues and Perspectives on the City
PHS 308, Leadership in Self and Society
PHS 310, Understanding the U.S. Health Care System
POL S 232, Basic Ideas in Political Theory
PSY 416, Psychology and Problems of Society (P)
PSY 334, Psychology of Women (P)
SOC 316, The American Male
SOC 336, Work in Modern Society

Mathematics and Natural Sciences Courses
BIOL 310, Human Reproduction: Issues and Perspectives (P)
BIOL 370, Introductory Environmental Science
CEOL 300, Energy, Resources, and Environment
HNRS 207, Seminar III: Mathematics and Natural Sciences
HNRS 440, Seminar in Natural Sciences and Mathematics
HP 330, Cancer: Perspectives and Controversies
MATH 331, Introduction to the History of Mathematics (P)
Med Tech 430, Biotechnology/Fact and Fiction
PHYS 320, Scientific Thinking
(P) designates courses with prerequisites

Emory Lindquist Honors Program
The Emory Lindquist Honors Program provides an enriched university experience to outstanding students. It welcomes students who are highly motivated and well-prepared. The program offers seminars, honors colloquia, and honors sections of regularly scheduled courses. Each course is limited to 12 or fewer students. The program also extends opportunities for independent study and sponsors academic enrichment activities such as lectures, field trips, and participation in regional and national honors organizations.

The program promotes academic excellence at the undergraduate level by offering a challenging honors track within the University's General Education Program, opportunities to earn academic distinction in a student's departmental major, and various support services. The honors program features seminars, courses, and independent study. Support services provided by the program include academic advising and counseling and facilities where students can study, meet with friends, or just relax. The student-led Emory Lindquist Honors Society sponsors a variety of academic and non-academic activities.

Broad program policy is established by the Faculty Honors Committee and is subject to approval by the vice president for academic affairs. The honors director, in conjunction with the Student Honors Executive Council, makes policy recommendations and sponsors student activities.

Generally, freshmen are admitted to the program if their composite score on the Enhanced American College Test (ACT) is 26 or higher, or if their high school grade point average is 3.500 or higher as certified by the University. Transfer and continuing students may enter the program if they have achieved a minimum grade point average of 3.250 in university-level studies and if they satisfy other transfer and admission criteria established by the program. Students who satisfy the minimum grade point average requirements but who are not members of the program may enroll in honors courses if they have the permission of the honors director.

To be admitted to the program, a student needs to submit an Honors Program Application and meet with a program representative.

Students in the Emory Lindquist Honors Program are expected to remain in good standing by maintaining at least a 3.250 grade point average overall, a 3.000 grade point average in honors course work, and by making regular progress toward completion of the honors curriculum. Students whose performance falls below these expectations will be placed on probation with the honors program.

Probation
A student whose overall or honors grade point average falls below program requirements will be put on probation for the next semester of enrollment.

A student will be removed from probation if grade point requirements are satisfied for work taken during the next semester of enrollment.

In the semester following that, the student's overall and honors grade point averages need to satisfy program requirements or the student will be dismissed from the program. Students may appeal dismissal to the Faculty Honors Committee by demonstrating compelling reasons why they should be permitted to continue as an honors student.

Normal Progress
Normal progress toward completion of the honors curriculum is defined as follows:

- complete one seminar within the first 12 credit hours at WSU
- complete two seminars within the first 24 credit hours at WSU
- complete two seminars within the first 30 credit hours at WSU

Graduation Requirements
To graduate with the notation "Honors Program Graduate" on his or her transcript, a student must satisfy the following requirements:

- complete the required honors curriculum
- achieve an overall grade point average of at least 3.250
- achieve a grade point average of at least 3.250 in all honors courses.

Graduation Honors
In addition to recognition awarded by the University to all students achieving outstanding academic records, honors program graduates are eligible for additional recognition.

Students who satisfy honors graduation requirements receive the notation "Honors Program Graduate" on their transcripts and are recognized at Commencement.

The highest ranked honors program graduates each year are named Emory Lindquist Scholars and are recognized at Commencement.

With departmental approval, honors program participants completing a senior project earn departmental honors at graduation.

Honors Curriculum
The honors curriculum offers academic opportunities throughout a student's University career. It includes an honors track in general education, an honors track in a student's major.

Freshman/Sophomore Seminars. In each of their first three semesters at the University, honors students substitute an honors seminar for one of the required general education distribution course. Enrollment in seminars is limited to 15 students.

Seminars are offered in fine arts, humanities, social and behavioral sciences, and natural science and mathematics. Each seminar has a specific topic.

In honors seminars students can expect to work closely with fellow students and the professor. Seminars are designed to stimulate learning by introducing students to basic questions in various fields of
study, the methods of inquiry developed to deal with these questions, and the connections between different branches of knowledge. Many seminars are interdisciplinary. Seminars emphasize the development of learning skills, including writing, oral communication, library research, and laboratory methods.

Honors Upper-Division Tracks and Departmental Honors. The upper-division component of the honors curriculum parallels the requirements for earning Departmental Honors. In most cases, a student who successfully fulfills Honors requirements will also qualify for Departmental Honors. Qualified students can apply to the Honors Program, be admitted, and satisfy requirements for Departmental Honors without completing other Honors requirements.

Each academic department defines its own upper-division honors track. Each track must include twelve hours of academic work and a Senior Thesis, Senior Project, or the equivalent. Tracks may include special courses, additional required courses not required for non-honors majors, GPA requirements, or a combination of such elements. To earn Departmental Honors at graduation, a student must maintain a GPA of 3.5 or higher for their work in the honors track. A student who completes the honors track with a lower GPA, but satisfies the Honors Program GAP requirement of at least a 3.25 GPA overall and in their Honors work, will be recognized as an Honors Program Graduate, but will not be awarded Departmental Honors.

Additional Honors Courses. Additional honors courses are offered regularly, including honors sections of English composition, oral communication, and calculus. Students are strongly encouraged to enroll in these sections as they complete other University requirements. Grades earned in these classes are included in a student's honors grade point average.

Honors Option. Students may take regular courses for honors credit with the permission of the course instructor and the Honors Program. Generally, such honors option arrangements involve doing some additional work connected with the course. Specific arrangements are worked out between student and instructor and submitted to the honors office on an Honors Option Contract. Failure to complete an honors option carries no penalty.

Lower-Division Courses

- HNRS 104. Seminar I: Fine Arts. (3-4). General education introductory course. Topics vary. Prerequisite: Beginning honors student or permission of honors director.
- HNRS 105. Seminar I: Humanities. (3-4). General education introductory course. Topics vary. Prerequisite: Beginning honors student or permission of honors director.
- HNRS 107. Seminar I: Mathematics and Natural Sciences. (3-5). 1-3R; 1-2L. General education introductory course. Topics vary. Prerequisite: Beginning honors student or permission of honors director.
- HNRS 150. Seminar II: Fine Arts. (3-4). General education introductory course. Topics vary. Prerequisites: HNRS 104 and 6 additional credit hours, or permission of honors director.
- HNRS 151. Seminar II: Humanities. (3-4). General education introductory course. Topics vary. Prerequisites: HNRS 105 and 6 additional credit hours, or permission of honors director.
- HNRS 152. Seminar II: Social and Behavioral Sciences. (3-4). General education introductory course. Topics vary. Prerequisites: HNRS 106 and 6 additional credit hours, or permission of honors director.
- HNRS 153. Seminar II: Mathematics and Natural Sciences. (3-1). 1-3R; 1-2L. General education introductory course. Topics vary. Prerequisites: HNRS 107 and 6 additional credit hours, or permission of honors director.
- HNRS 204. Seminar III: Fine Arts. (3-4). General education issues and perspectives course. Topics vary. Prerequisites: HNRS 104 and 150 and 12 additional credit hours, or permission of honors director.
- HNRS 205. Seminar III: Humanities. (3-4). General education issues and perspectives course. Topics vary. Prerequisites: HNRS 105 and 151 and 12 additional credit hours, or permission of honors director.
- HNRS 206. Seminar III: Social and Behavioral Sciences. (3-4). General education issues and perspectives course. Topics vary. Prerequisites: HNRS 106 and 152 and 12 additional credit hours, or permission of honors director.
- HNRS 207. Seminar III: Mathematics and Natural Sciences. (3-5). 1-3R; 1-2L. General education issues and perspectives course. Topics vary. Prerequisites: HNRS 107 and 153 and 12 additional credit hours, or permission of honors director.
- HNRS 310. Honors Tutorial. (1). Repeatable to a maximum of 3 hours of credit.
- HNRS 400. Honors Seminar. (1-4). Cross-listed as ENGL 421 and PHIL 400.
- HNRS 410. Independent Study. (1-4). Repeatable to a maximum of 6 hours of credit.
- HNRS 428. Seminar in Humanities. (3-4). Topics vary. Prerequisites: HNRS 208 or permission of honors director.
- HNRS 430. Seminar in Social and Behavioral Sciences. (3-4). General education issues and perspectives course. Topics vary. Prerequisites: HNRS 208 or permission of honors director.
- HNRS 440. Seminar in Natural Sciences and Mathematics. (3-5). General education issues and perspectives course. Topics vary. Prerequisites: HNRS 208 or permission of honors director.

Honors Program

Much of the excitement of college learning comes through informal discussions with faculty and other students: HNRS 310, Honors Tutorial; Selected Readings offers such an opportunity. This course features informal discussions between groups of five or six students and a faculty mentor. While four or five books are read and discussed during the semester, the primary purpose of the course is to personalize the educational experience and give students an opportunity to talk about other education concerns they may have.

Certificate Programs

Certificate programs are available at the undergraduate and graduate levels. These programs are a group of related courses that address a special topic and completion of these courses indicates achievement in a specialized area. Certificates vary in terms of length and some courses in the program may have prerequisites. While these programs do not end with an academic degree, many of the courses are found within degree programs. Certificate programs are reviewed by the faculty on a three year rotation. Many of these programs exist for limited time periods depending on their demand. Certificate programs are further described in the various departmental sections.

Cooperative Education

Cooperative education is an academic program for undergraduate and graduate students who wish to combine classroom studies with academically related paid employment. Cooperative education places students both locally and nationally.

By using off-campus resources and expertise, cooperative education places students in business, government, industry, and social agencies. Programs are individually designed, enabling students to work directly with professionals in their field while expanding upon knowledge learned in the classroom.

Students hired in cooperative education positions must enroll in specially designated Co-op courses and work with a faculty advisor from within the appropriate departments. Each placement is assessed by the faculty advisor for its potential to provide learning experience relevant to the student's professional and educational goals.

Cooperative education offers both alternating and parallel placements. Students who select the alternating option must complete a semester of full-time enrollment in course work before entering a second alternating position. Alternating place-
ments carry the status of full-time students and enjoy the accompanying privileges.

Students selecting the parallel option are required to carry a minimum of 8 hours of course work in addition to their Co-op course. Students may enroll in parallel Co-op positions during consecutive semesters.

Requirements for Co-op participation vary within the different colleges and departments. Requirements for admission to the Co-op program generally include completion of 24 credit hours and satisfactory academic standing. Interested students should come to the Cooperative Education and Work-Based Learning Office, 223 Grace Wilkie Hall, or call (316) 978-3688. Students are required to complete an application for registration in the office and an online orientation. Students also are expected to attend a professional practice workshop prior to meeting with the appropriate college coordinator.

For more information, check our Web site: [www.wichita.edu/coop](http://www.wichita.edu/coop)

Internships

A wide variety of internship opportunities are available for WSU students who want to have a short work experience that is connected to their area of study. Internships relate to a student’s area of study or major. Most internships are paid but there are also excellent unpaid opportunities.

Internships are pre-defined in length, often lasting only one semester for the summer. Opportunities are available within the Wichita area and across the country. Some internships offer housing assistance through stipends or directories. Students attending an internship in specially designated internship courses and work with a faculty advisor from within the appropriate department.

Academic credit is earned after completing all project requirements assigned by the advisor.

For more information, contact the Department of Modern and Classical Languages and Literatures, 305 Jardine Hall.

Exchange and Study Abroad Programs

National Student Exchange

The National Student Exchange (NSE) is an exciting opportunity to attend one of more than 170 colleges and universities across the country while paying your regular WSU tuition. Costs of room, board, and books are paid at the host campus. You will continue to have your financial aid information sent to WSU. Most financial aid and scholarships will still be applicable; your aid must first be applied to your tuition bill at WSU, and the balance can be taken to pay costs at your host campus.

The program is open to undergraduate, domestic students who are (1) enrolled in at least 9 hours at WSU at the time of application to NSE as well as in the semester prior to exchange and (2) have a 2.50 cumulative grade point average at the time of application and at completion of the semester prior to exchange. You should apply for the program during the fall before the year you want to exchange.

Prior to the exchange, you and your academic advisor will complete an advising agreement. You will receive full credit for work satisfactorily completed on exchange.

For more information, call the NSE coordinator, (316) 978-3085.

Study Abroad Programs

Wichita State University provides a range of options for students interested in studying overseas, from its own programs taught by WSU faculty to consortia with which WSU participates to programs operated by other institutions and organizations.

WSU students who wish to study abroad should first visit the Office of International Education to talk with an advisor about studying overseas. Interested students can look at a variety of study abroad programs in the Study Abroad Library on the second floor of the James Sutherland Garvey International Center.

The university offers its own exchange agreements with Kansai Gaidai University and Nagoya City University in Japan, University of Canterbury in Australia; Auckland University of Technology in New Zealand, and the Berlin School of Economics in Germany. Students may also participate in a study abroad program with King Alfred’s College in England and spring break programs in Belize offered through the Anthropology and Geology Departments. The university is a member of several consortia offering more study abroad opportunities, including the International Student Exchange Program (ISEP), the Maastricht Center for Transatlantic Studies (MCTS), and the American Institute for Foreign Study (AIFS). Students may also use the National Student Exchange program described above to participate in overseas study programs sponsored by those universities.

The Department of Modern and Classical Languages and Literatures offers organized study abroad programs in Mexico and France, described below.

*Exchange Program with the University of Orleans.* Wichita State University has a special exchange program with Wichita’s French sister city, Orleans. Through this exchange program, students pay their tuition and fees at WSU and do academic work in their chosen field at the Université d’Orléans. Orleans also offers a four-week summer program in which students may earn up to 6 hours of credit transferable to WSU. Students pay their fees directly to Orleans when enrolled in the summer program.

For more information, contact the Department of Modern and Classical Languages and Literatures, 305 Jardine Hall.

Midwest Student Exchange Program (MSEP)

This program enables residents of Michigan, Minnesota, Missouri, Nebraska, and North Dakota to enroll at a reduced rate of tuition in designated programs at Wichita State. Tuition for MSEP students is equal to 150 percent of regular in-state tuition, which is substantially less than what students would pay as nonresidents. Programs approved for the MSEP include study in the United States, Canada, and Mexico. For more information, contact the Department of International Education, 223 Grace Wilkie Hall, or call (316) 978-3060 or e-mail [Martha.Shaw@wichita.edu](mailto:Martha.Shaw@wichita.edu)

Field Studies and Workshops

Workshops

Workshops devoted to current topics are offered throughout the year. Typical courses include workshops dedicated to modern and classical languages and literatures, cultural studies, international education, and other related fields.

For more information, contact the Department of Modern and Classical Languages and Literatures, 305 Jardine Hall.
shops for teachers in areas of business, education, and fine arts; courses in current health issues; an entrepreneurship workshop for people considering a small business; and field study in topics such as the floral ecology of the Rocky Mountains, the Osage culture in Oklahoma, or a wilderness experience in a national park. A list of the workshops being offered each term is included in the Schedule of Courses. Special fees are charged for workshops. (See the Financial Information section of the Catalog.)

High School Students
High school students between their junior and senior years may enroll as guest students for college credit in many WSU classes (see page 9). Other summer opportunities at Wichita State for high school students include sports camps in basketball, baseball, and volleyball; a drum major and twirler camp; and enrichment courses for career exploration.

Field Geology
Wichita State offers a summer field course in geology. The base camp is Beulah, Colorado, on the east flank of the Wet Mountains. The summer course consists of five weeks in the field, for which students receive 6 hours of credit.

Applicants should have completed course work in physical and historical geology and at least 12 hours of advanced geology, preferably including a field methods mapping course. Inquiries should be directed to the Department of Geology, 114 Geology Building.

Academic Resources

Libraries
The University's libraries consist of Ablah Library, the main library, and chemistry and music branch libraries. Through a wide range of materials, facilities, and services, the University libraries support teaching and research at WSU. The collections include more than three million books and periodicals, microforms, government publications, corporate annual reports, scores, videotapes, audio recordings, and more than 90 electronic databases. In 1991, Ablah Library became an official United States Patent and Trademark Depository Library, the only such depository in Kansas.

Ablah Library facilities include an open stack arrangement, seating for more than 800 people, group and faculty study carrels, electronic carrels containing listening and viewing equipment, microform reading and printing equipment, and photocopiers, and typewriters. PC workstations and printers are provided to access the library's online catalog and electronic databases. A 24-hour study room with a vending area and work stations offering access to the Internet and all library databases as well as word processing programs and a spreadsheet program is also maintained for student use.

The University's libraries offer students a variety of services, including convenient hours as well as remote access to the online catalog and most of the library's electronic resources. Reference librarians are available to help students locate information and use the computerized systems. These librarians also perform literature searches in numerous remote computerized databases. When materials are not owned, interlibrary loan services will locate and borrow materials from other institutions.

The Department of Special Collections houses the University Archives, rare books, historical Kansas maps, and a rapidly growing manuscript collection of more than 700,000 documents, many of which are available via the Internet. This collection includes papers of the abolitionist William Lloyd Garrison, the Kantor Collection of the Civil War Sanitary Commission, and local history collections, all of which can be helpful for student research.

More details about library resources and services are listed on the libraries' web site: library wichita.edu

University Computing
The University Computing and Telecommunications Services (UCATS) organization provides the informational backbone for campus communications. In addition to the network infrastructure, UCATS supports the programs and technology for the administration of the University. Responsibilities include phone services, network connectivity, application support and training, programming support, desktop diagnosis and repair, network administration, security, operations, and technological consulting. You will find more details about these and other services online. See www.wichita.edu/ucats

Open Student Computer Labs
UCATS maintains two open computer labs in Jabara Hall, Rooms 120 and 122. These labs are configured with up-to-date personal computer systems and an abundance of software applications. Other services that are available are Macintosh systems, scanning, laser printing, and color printing. There are lab assistants and professional staff available to support the use of these applications, systems, and other services. E-mail support, Internet use, and class project assistance.

Due to varying schedules of students, the labs have generous hours of operations that are always posted on the lab entry doors or at the web site listed under Public Labs at www.wichita.edu/userservices

Shocker One Stop (SOS)
Shocker One Stop is a web site, maintained by UCATS, that allows every student to view and edit their own WSU information. Examples are: Register for classes, view class schedules, current grades, transcript, financial aid information, edit personal e-mail and address data, and locate your academic advisor. For more information about this service and how to activate the account, go to www.wichita.edu/sos

Jabara Computer Laboratory Hours
Jabara Hall 120
Monday-Thursday, 7 a.m.-10 p.m.
Friday, 7 a.m.-6 p.m.
Saturday, 10 a.m.-6 p.m.
Sunday, 1 p.m.-6 p.m.
Jabara Hall 122 (24-hour lab)
Open continuously, Monday, 7 a.m.-Friday, 6 p.m.
Saturday, 10 a.m.-6 p.m.
Sunday, 1 p.m.-6 p.m.

Internet Access (Shocknet2)
A dial-up connection service ($6) to the Internet is provided by UCATS. Shocknet2 is provided at a nominal fee and there is assistance available to support anyone who has problems getting a proper connection. Application, installation instructions, and other information about Shocknet2 is available through the staff at the Jabara Computer Labs, WSU-Help (978-4357) or www.wichita.edu/shocknet2

Campus Network Access
All residence hall students are provided a direct connection to the campus network. This includes a high-speed access to the Internet. Students can also register their wireless network cards through their SOs account that will authorize wireless access in the Library and Rhatigan Student Center. Other buildings will soon be added for additional wireless access connections.

E-mail (wichita.edu)
Every WSU student is automatically assigned an e-mail account with the 'wichita.edu' suffix. This electronic mailbox allows you to send and retrieve communication. The use of e-mail is provided to you as a supplementary source of communication for your academic pursuits. You are expected to use this e-mail address for University communication. Application, instructions, and other information about your e-mail account are available at the online WSU E-mail Center: www.wichita.edu/email

Media Resources Center
The Media Resources Center (MRC) is a comprehensive media and video communications organization serving the instructional, research, and service missions of Wichita State.

The MRC operates the University's cable television station, WSU-TV, and programs three other channels: channel 21, the College Television Network (CTN); channel 17, the International Channel; and channel 20, the Campus Information Channel (CIC). The MRC oversees the radio station licensed to the University, KMUW 89.1 FM. A public radio station, KMUW also operates the Wichita Radio Reading Service.

Facilities and resources at the MRC include an interactive television (ITV) classroom, a multimedia lab, and a professional television production studio. The MRC has designed and installed and maintains

LIBRARIES

Jabara Hall 120
Monday-Thursday, 7 a.m.-10 p.m.
Friday, 7 a.m.-6 p.m.
Saturday, 10 a.m.-6 p.m.
Sunday, 1 p.m.-6 p.m.

Open continuously, Monday, 7 a.m.-Friday, 6 p.m.
Saturday, 10 a.m.-6 p.m.
Sunday, 1 p.m.-6 p.m.

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master classrooms across campus.

A wide array of media equipment is available for classroom use by students and faculty. This includes video recording systems and projection equipment.

Cable Television

Wichita State University operates WSU-TV, which is carried on more than 20 cable television systems in the Wichita area. Programming is provided by the Research Channel, a consortium of research universities, which promotes greater public awareness of research activities in progress around the world.

Additional programming consists of telecourses offered each semester for academic credit. Local programming includes a weekly student newscast and occasional specials of university events.

Language Labs

The Savitran-Cress Language Laboratories offer a variety of media services to foreign-language students. Audio, video, and computer equipment are available to students and faculty alike, with the goal of enhancing and expanding the variety of media to foreign-language students. Tutoring and remedial assistance is available to students, alumni/alumnae, and community members seeking career advice or employment-related assistance.

Individual career counseling is available to assist students, alumni/alumnae, and community members with planning and decision making. Assessment instruments, including the Strong Interest Inventory, are offered for self-assessment. Workshops, presentations, and classroom instruction are offered to enable people to learn about the capabilities of various career fields, to prepare job resumes and letters of application, to conduct effective employment interviews, and to make informed decisions.

Occupational and career information, employer directories, information on employment trends, annual salary survey reports, and information on graduate and professional school opportunities are available in the Career Exploration and Resource Center (CERC).

The CERC also houses a lab which provides computers for students to prepare job search documents such as resumes and cover letters. The computers also provide access to the World Wide Web for career research, as well as for online registration and interview sign-up.

Degree candidate and alumni/alumnae job search services include computerized resume referral to career employment vacancies; web resume books; on-campus interviews with employer representatives; and on-line positions listings. A bi-weekly e-mail newsletter provides career-related tips and information on programs and events.

Employment services also include online listings of part-time and summer employment opportunities.

Contact Career Services in 203 Grace Wilkie Hall, at (316) 978-3435, or online at careers.wichita.edu

Child Development Center

The WSU Child Development Center is located at 320 East 21st Street North, at the NW corner of Hillside and 21st Street. It is a licensed child care center for children of WSU students, faculty, staff, alumni, and community. A diverse staff of qualified

lead teachers and WSU student assistants facilitate developmentally appropriate activities—art, language, science, math, music, and literature—in a hands-on learning environment. The child care center is open Monday through Friday from 7:30 a.m. to 5:30 p.m. for children six weeks to six years old. Full- and part-time care is available in addition to a school-age program during the summer.

Enrollment is limited so arrangements for child care must be made prior to the beginning of the semester in which services are needed. Child care assistance is available for WSU student parents who demonstrate financial need; applications may be obtained at the Center.

For more information, call (316) 978-3109, or online at studentaffairs.wichita.edu/cdc.html

Counseling and Testing

The Counseling and Testing Center provides psychological services and counseling for personal and career/life planning issues. Professional counseling is available on a cost-shared basis to all members of the University community—students, their families, faculty, and staff. Individual, couple, family, and group counseling is a part of the professional counseling services. Testing services also are part of the University's mission.

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Contact the Counseling and Testing Center in 320 Grace Wilkie Hall, at (316) 978-3440, or online at webs.wichita.edu/cncst

Disability Services

The Office of Disability Services provides academic accommodations for students who experience physical, learning or mental disabilities. Students are required to provide appropriate documentation to the Director of Disability Services before classroom accommodations are provided. For more information, contact Office of Disability Services Wichita State University

1845 Fairmount

Wichita, Kansas 67260-0132

(316) 978-3309, voice/TTY

(316) 978-3114, fax

webs.wichita.edu/dis services

Services are based on the student's need for academic accommodation. Disability Services encourages students to be independent on campus and to use those services which help maximize their educational experience.

Disability Support Services

The Disability Support Services (DSS) program provides opportunities for academic development, assists students with basic college requirements and
motivates students with disabilities towards the successful completion of a baccalaureate degree. The program's goal is to increase the college retention and graduation rates of students with learning, physical and psychological disabilities. Services provided by DSS include: academic advising, individualized tutoring, career exploration and referral, study skills improvement, scholarship opportunities, computer technology lab usage, financial aid search, graduate school selection and information, course selection and degree planning assistance, and campus and community involvement opportunities. For information, contact DSS at (316) 978-5949, stop by 174 Grace Wilkie Annex, or visit our web site at web.wichita.edu/dss

International Student Services
The Office of International Education serves the special needs of approximately 1,350 international students from more than 100 countries enrolled at Wichita State. (For international student admission requirements, see page 9.) An orientation program specially designed for new international students prepares them for entrance into the American academic systems and way of life.

The office also sponsors the Friendship Family Program, the Cultural Ambassador Program, and other activities that promote interaction between American and international students.

In addition, the office houses a Study Abroad Reference Center which provides information to American students on study, work, and travel opportunities abroad.

For more information, contact the Garvey International Center, (316) 978-3730.

Rhatigan Student Center
The Rhatigan Student Center (RSC) is the community center for Wichita State University. Through its facilities and services, the student center serves students, faculty, staff, alumni, and guests of the University.

The RSC has several dining areas to provide a variety of atmospheres and menu as well as a catering department to meet further needs.

The University Bookstore, on the first floor of the RSC, stocks all required textbooks, computer software and hardware at educational prices, art supplies, general reading material, greeting cards, Shockers souvenirs, and gifts. Visit the bookstore on the Internet at www.wsubooks.com or call 978-3490.

The RSC has a Recreation Center on the lower level for leisure use. It includes pinball, video games, bowling, billiards, snacks, locker rental, an engraving shop, laminating services, and a barber/beauty shop. The Rec Center, perfect for parties, is available for campus and non-campus groups at reasonable group rates. The Rec Center also is the home of the nationally ranked Shocker men's and women's bowling teams.

The Student Activities Council (SAC), in the RSC, provides students an opportunity to learn and develop leadership skills while planning a variety of programs for the campus. The Student Activities Council is the largest event-planning organization on campus; it sponsors more than one hundred events annually, including Shocktoberfest and Hippodrome.

The RSC is also home for the Student Government Association, Student Ombudsman, Shockercard Card Center, Commerce Bank, University Dining Services, WSU Campus Ministries, the Center for Student Leadership, and the Rhatigan Student Art Gallery. Additionally, the RSC has a 450-seat theater and a variety of meeting rooms that can be scheduled for meetings, special events, and conferences.

The Reservations Office schedules the use of all facilities in the RSC as well as most University facilities for out-of-classroom use. Additionally, the Reservations Office manages the University Information Center (UIC) on the first floor of the RSC. Call the UIC at (316) 978-INFO (4636) for any information about WSU.

The RSC is supported through revenues generated from within the operation and student fees. Visit the RSC on the web at rsc.wichita.edu

Sports and Recreation
Numerous sports and recreation programs exist at the University. Wichita State is a member of the Missouri Valley Conference; WSU men compete in basketball, baseball, track, tennis, and golf, and WSU women compete in basketball, softball, track, tennis, golf, and volleyball. The University fields teams in bowling and crew as independent sports.

There also is an extensive campus recreation program. Club sports include spirit squad, dance squad, racquetball, men's and women's soccer, men's volleyball, wheelchair athletics, ice hockey, and ski. Intramural sports include flag football, basketball, table tennis, badminton, soccer, softball, bowling, swimming, and racquetball.

Students with a current Shocker ID card are admitted free to all varsity athletic events.

Facilities
Sports and recreation facilities for WSU students include a regulation 18-hole golf course; the 10,400-seat Charles Koch Arena which is used for intercollegiate basketball games, volleyball matches, and major entertainment events; Cessna Stadium, a 31,503-seat football and track and field facility which hosts high school and community events; the 2,808-seat Eck Stadium-Home of Tyser Field, home to the Shocker baseball program, which recently underwent a $7.8 million renovation and ranks among the finest college baseball facilities in the country; the Sheldon Coleman Tennis Complex with eight lighted courts, home to WSU's men's and women's intercollegiate tennis program; and the new 1,000-seat C. Howard Wilkins Softball Facility for intercollegiate softball for women.

The Heskett Center, a multipurpose, dance, physical education, and recreation complex, contains instructional, research, and recreational areas. Activity areas consist of a weight room, circuit training room; combatives room; 25-meter indoor swimming pool with separate diving well; seven handball-racquetball courts, indoor climbing wall, and a 200-meter indoor jogging track which surrounds five basketball courts.

The outdoor area contains a six-court lighted tennis complex and two large lighted playing fields. Students must show a current Shocker ID card to use the activity areas for recreation or for classes. Check our Web site: webs.wichita.edu/heskett

Student Development and Multicultural Affairs
The administrative office of Student Development and Multicultural Affairs is in 008 Rhatigan Student Center, (316) 978-3022, and the Multicultural Resource Center is in 156 Grace Wilkie East (Annex), (316) 978-3034. Visit us online at www.wsu.edu/dsm

The mission of the Office of Student Development and Multicultural Affairs is to foster an environment that promotes multiculturalism while building community and to coordinate services and programs that allow students and student organizations to participate in leadership, awareness, involvement, and volunteerism opportunities.

The Office of Student Development and Multicultural Affairs has five components:

Greek affairs—formal recruitment, fall and spring all-greek assemblies, greek leadership retreat, and greek convection;

Multicultural affairs—minority student mentoring program, cultural theme-month programming, Jumbo: A Night of Creativity, students of color graduation ceremony;

Student organizations and leadership—student organization registration and support, leadership institutes, student awards and recognition day;

Volunteerism—alternative spring break, Building Up Dreams in Urban Youth (BUDY) mentoring program, Shockers United; and

Women's programming and resources—women's history month events, women's Brown Bag Lecture and Film Series.

Student Government Association
Wichita State believes that one of its primary tasks is preparing students for the responsibilities of citizenship in a democratic society. With this in mind, the University places an increasing emphasis on the role the Student Government Association plays on campus.

The legislative, executive, and judicial responsibilities of SGA are vested in the Student Senate, the Executive Officers and Cabinet, and the University Supreme Court. The Senate appoints students to many University and Faculty Senate committees, recognizes and funds more than 150 student organizations, and allocates approximately $6 million annually in student fees to campus agencies ranging from the Heskett Center, Rhatigan Student Center, and
Student Health Services. SGA also provides opportunities to fund your education through the Rhatigan Leadership Scholarship and provides financial assistance for child care through the Child Care Assistance Program. The cabinet executes the decisions of the senate and the officers. The supreme court issues opinions on constitutional questions and also serves as an appellate court for traffic and academic appeals. Each of these entities also participates in the determination of University policy.

Each student is automatically a member of SGA and is eligible to vote in the annual elections in April. Throughout the year, openings exist on the Student Senate, as well as in many of the University committees. All students are encouraged to participate in student government through the many opportunities SGA offers.

For more information, contact the Student Government Association, Room 202, Rhatigan Student Center, Wichita State University, (316) 978-3480.

Student Health Services

Student Health Services, the on-campus health care facility for students, is located in 209 Aihberg Hall. Ambulatory health care is provided for students with illness, injury, questions, concerns, or problems. Staffed by professional nurse practitioners, nurses, and physicians, SHS offers a wide range of services.

Information about insurance plans is available, however insurance is not a requirement to be seen.

For more information, call (316) 978-3620.

Student Rates

Special rates for students are available for some campus activities. The following offices have ticket and price information: Rhatigan Student Center—on-campus movies and Wichita Symphony Orchestra; Fine Arts Box Office (DuKok Fine Arts Center)—dance, music, opera, and theatre; Charles Koch Arena—athletic events; Braeburn Golf Club—student golf rates.

Student Support Services, Talent Search—Project Discovery, McNair Scholars Program, Upward Bound/Wichita Prep, Upward Bound/Galaxy Experience, EOC and Disability Support Services

Student Support Services, Project Discovery, McNair Scholars Program, Upward Bound's Wichita Prep and Regional Math-Science Center/The Galaxy Experience, and EOC and Disability Support Services are special programs designed to help students prepare for University life and successfully complete their courses of study.

Student Support Services, a federally funded program, provides limited income, first generation college students, and individuals with disabilities with a multiplicity of academic support services which assist students to persist and graduate from WSU. The program has three components which provide individualized semester-long peer tutoring, academic advice and course selection, computer and typewriter usage, textbook-loan library, scholarships, comprehensive degree planning, study skills development, and graduate school advisement. The program serves 250 students each year and has been in operation at WSU since 1970.

For more information, contact us online at www.web.wichita.edu/ss/ Talent Search—Project Discovery, a federally funded Talent Search Program, was established at Wichita State University in July 1977. The project assists approximately 1,500 low-income and/or first generation individuals in gaining admission to postsecondary institutions throughout the nation and preparing them for secondary school. The program provides assistance to middle school students, high school students, dropouts from secondary and post-secondary schools, and adults. Specific help is provided with admission forms, financial aid forms, and preparation for ACT/SAT assessment examinations. Tutorial assistance and instruction to middle school students also is provided. The project's two offices, at Wichita State and in Parsons, Kansas, serve middle (WSU only) and high schools and community agencies in Wichita and eight counties in southeast Kansas. The WSU office is located in Brennan I, third floor. Our Web site is web.wichita.edu/talentsearch/ The Ronald E. McNair Postbaccalaureate Achievement Program encourages qualified college juniors and seniors to pursue graduate studies. Named in honor of Challenger space shuttle crew member Ronald E. McNair, the program provides services which prepare students for postbaccalaureate study, including assistance in locating financial aid, preparation for the Graduate Record Examination (GRE), and opportunities to attend and present papers at national conferences and to write for scholarly publications. Scholars participate in research conducted by University faculty and local and national conferences and provide an opportunity for students to present their research. In addition, regular workshops encourage students' serious consideration of doctoral study. For more information, see us online at web.wichita.edu/mnsp.

The Upward Bound programs are federally funded programs that have been at WSU since 1966 (Wichita Prep) and 1991 (The Galaxy Experience). Wichita Prep assists high school students from limited-income backgrounds and who are first generation university students with academic potential but who may have inadequate secondary school preparation. The Wichita-area high school students participate in an intensive six to eight week summer and nine month academic year schedule to improve academic and social skills. Services include tutorial assistance; academic, career, and personal counseling; postsecondary admission and academic classes and workshops. The program serves 55 students each year. The six week residential program for students returning to high school assists them in the completion of secondary requirements and gives them exposure to college life.

An eight week residential program for students will enroll in university classes in the fall providing them their first experience with college course work. Our Web site is web.wichita.edu/tbw.

The mission of the Upward Bound Regional Man Science Center/The Galaxy Experience, is to stimulate an advance interest in mathematics, science, and computer technology; to challenge students to perform; to provide unique residential, academic, exploratory, hands-on experience; and encourage high school students to realistically consider attaining a postsecondary degree in mathematics or the sciences. The programs offers high school students from limited-income backgrounds the opportunity to interact with a highly qualified staff and faculty, as well as exposure to college life. Fifteen participants are drawn from the private and public high schools in the surrounding area-Kansas, Missouri, Nebraska, and Iowa. Ten of the 50 participants spend a week in the Future Astronaut Space Camp in Hutchinson, Kansas. The program focuses on three themes important in the discipline of science:

Space Science and Aerodynamics—emphasizes how and why this country puts both human beings and machine into outer space.

Environmental Science—examines conservation and pollution issues in the nation and in immediate surroundings.

Human Health issues—focuses interest in biological science on issues most pertinent to students.

Our Web site is web.wichita.edu/ubms.

The Educational Opportunity Center (EOC) program seeks to provide free counseling and assistance on college admissions (for qualified adults who want to improve their job opportunities through entering or re-entering an educational program beyond high school). The program assists clients with a broad spectrum of comprehensive services. Assistance is given to individuals age 19 and over in applying for admissions to institutions that offer programs of postsecondary education, including assistance in preparing the necessary applications for use by admissions and financial officers. Services include assistance with completing college admissions applications; completing financial aid applications; career guidance and other specialized workshops; academic advice; personal counseling and study skills assistance; General Educational Development (GED) English as a Second Language (ESL), or Adult Basic Education (ABE) test preparation and community referrals.

The Disability Support Services (DSS) program provides opportunities for academic development and assistance to students with basic college requirements, and motivates students with disabilities towards the successful completion of a baccalaureate degree. The program's goal is to increase the college retention and graduation rates of students with learning, physical, and psychological disabilities. Services also include academic advising, individualized tutoring, career exploration and referral, study skills improvement, scholarship opportunities, computer lab usage, financial aid searches, graduate school selection and information, course selection and degree.
planning assistance, and campus and community involvement opportunities.

Gaining Early Awareness and Readiness for Undergraduate Programs (GEAR UP)

Wichita State University hosts a five-year statewide federal grant, Gaining Early Awareness and Readiness for Undergraduate Programs (GEAR UP), 50% funded by the U.S. Department of Education, with foster students identified as priority students for receiving educational support. Low-income and first-generation students also qualify for this program. The overall goal of Kansas Kids @ GEAR UP is to increase the number of students graduating from high school who are prepared for enrollment in post-secondary education, thereby enabling students to reach their full potential and consequently improving educational and social outcomes.

Kansas Kids @ GEAR UP will work to expand existing efforts to enhance student achievement by partnering with SRS and privatized foster care agencies, the Kansas Board of Regents, the Kansas State Department of Education, TRIO programs, school districts, and other community and state agencies. Key components of Kansas Kids @ GEAR UP are academic development through tutoring and workshops, mentoring and counseling (academic and career planning), post-secondary access education, and providing scholarships for post-secondary education.

Veterans Services

The Office of Veterans Services, 203 Jardine Hall, provides services to veterans and active duty people. The services span the entire range of benefits and include certification for benefits to the VA, financial assistance information, and work-study for veterans.

Wichita State University is designated a Service-mans Opportunity College. Our Web site is financialaid.wichita.edu/veteran/vethome.htm

Student Organizations

Registration

Student organizations may be granted the privileges of University recognition if they are registered with the Center for Student Leadership and approved by the Student Government Association (SGA). To be approved, each organization must provide a completed WSU Student Organization Registration form, lists of officers with addresses, copies of constitutions and bylaws, and an advisor's name and address to the Center for Student Leadership. Once an organization has provided all necessary information, it may be granted official recognition by SGA which means it may use Wichita State in its name, use University rooms or grounds for meetings, post announcements on University bulletin boards, request funds from student fees in accordance with established procedures and guidelines SGA statutes, and be listed as a WSU organization in the Undergraduate Catalog, Campus Directory, and other University publications. Records of recognized organizations are maintained in the Center for Student Leadership.

For more information regarding student organization registration, contact the Center for Student Leadership, 108 Rhatigan Student Center, (316) 978-3022.

Student Organizations

Academic

A Cappella Choral Society
Alpha Kappa Psi
American Association of Petroleum Geologists
American Production and Inventory Control Society
American Society for Quality
American Society of Mechanical Engineers
Anthropology Club
Association for Computing Machinery
Association of Collegiate Entrepreneurs (ACE)
Association of Information Technology Professionals
Beta Alpha Psi, Epsilon Tau Chapter
Collegiate Music Educators National Conference
Decorative Arts Guild
English Graduate Student Association
Fine Arts Student Association
Geology Club
Health Careers Opportunity Program
Hugo Wall Public Administration Society
Institute of Electrical and Electronics Engineers
Institute of Industrial Engineers
International Business and Studies Association
Japanese Language Organization
Kansas Association of Nursing Students
Master of Physical Therapy Student Association
Philosophy Society
Physician Assistant Student Society
Pi Delta Phi
Pi Mu Epsilon
Potters’ Guild, WSU
Premedical Student Association
Russkii Kruzbok, The Russian Club
Social Work Organization of Graduate Students
Society for the Biological Sciences
Society of Automotive Engineers
Society of Automotive Engineers Aerospace Club
Society of Physics Students
Society of Traditional Printmakers
Society of Women Engineers
Student Association for the Master of Business Administration
Student Music Teachers Association
Student Society for the Advancement of Exercise Science
Student Speech-Language-Hearing Association
Students in Free Enterprise (SFE)
Tau Beta Pi Engineering Honor Society
Tutoring Association
Women’s Studies Scholars and Allies
Wu Crue (WSU K-12 Physical Education)

Community Service

Campus Girl Scouts

Emerging Leaders
Pay Back Society
Student Ambassador Society
Student Health Advisory Committee

Cultural/International

African Student Association
Associated Malaysian Students of Wichita
Association of Hindu Students in America
Association of Thai Students
Black Student Union
Chinese Student Friendship Association
Hispanic American Leadership Organization
Indian Students Association
International Student Union
Japanese Student Association
Korean Student Association
Laotian Student Association
Mi Pueblo (Latin American Union)
Muslim Students Association
Nepalese Student Association
Pakistan Students Association
Philippine Friendship Organization
Sri Lankan Student Association
Student Association of Bangladesh
Taiwanese Student Association
Turkish Students Association
Vietnamese Student Association

Fraternal and Sorority

Alpha Kappa Alpha
Alpha Phi
Alpha Phi Alpha
Beta Theta Pi
Cultural and Traditional Sisterhood
Delta Delta Delta
Delta Gamma
Delta Sigma Theta
Delta Upsilon
Gamma Phi Beta
Kappa Delta Chi
Kappa Delta Phi
Kappa Sigma
Phi Beta Sigma
Phi Delta Theta
Pi Kappa Alpha
Sigma Alpha Epsilon
Sigma Gamma Rho
Sigma Lambda Beta
Sigma Phi Epsilon
Zeta Phi Beta

Governing/Representative Councils

Engineering Council
Interfraternity Council (IFC)
International Student Union
National Pan-Hellenic Council
Non-Traditional Student Association
Student Activities Council
Student Government Association
Women’s Panhellenic Association
er is considered part of the main campus. Continuing education classes and special services including the Speech-Language-Hearing Center and the Wichita Radio Reading Service are available at the Hughes Metropolitan Complex, 978-3258. Some of the University's facilities are described below.

Grace Memorial Chapel
Harvey D. Grace Memorial Chapel, located in the heart of the campus near Morrison Hall and the Rhatigan Student Center, was built in 1963 and dedicated to serve all creeds and races. The chapel is available to students for group or individual worship and meditation and is a frequent location for weddings.

Rhatigan Student Center
See description of the Rhatigan Student Center on page 25.

Satellite Location
WSU offers classes and limited enrollment services at WSU Westside, 7011 West Central, 978-6777. Students may register for classes at this site. Tuition and fees are the same as those on the main campus.

Course locations are listed in the Schedule of Courses.

Sports Facilities
See description of the University's sports and recreation facilities on page 25.

Ulrich Museum of Art
The Ulrich Museum of Art, an integral part of Wichita State University, was established in 1974 to enhance and support the university's educational and service mission. Since its founding, the museum has served as Wichita's premier venue for contemporary works by established and emerging artists of national and international significance. A lively schedule of temporary exhibitions is complemented by an important collection of 20th-century painting, sculpture, and works on paper by such key historical figures as Diane Arbus, Alexander Calder, Robert Henri, Willem de Kooning, Jacob Lawrence, Joan Miro, Joan Mitchell, Robert Motherwell, Robert Rauschenberg, and Andy Warhol, and a diverse group of contemporary, 21st-century artists including Jennifer Bartlett, Enrique Chagoya, Gisín Fujita, Trenton Doyle Hancock, Nic Nicosia, Alan Rath, Peter Sarkissian, John Simon, Jessica Stockholder, and Kara Walker. The museum is also well known for its outdoor sculpture collection, a group of more than seventy 20th-century monumental works installed across WSU's 330-acre campus that includes important pieces by Scott Burton, Luis Jiménez, Henry Moore, Louise Nevelson, Claes Oldenburg, George Rickey, and Auguste Rodin.

The museum was named in honor of Edwin A. Ulrich, a Hyde Park, New York businessman who donated his collection of more than 300 works by the early 20th-century painter Frederick Judd Waugh and set up an endowment to support the new institution. The founding of the Ulrich coincided with the construction of a modern facility that is shared with the School of Art and Design. The museum, which occupies two floors of McKnight Art Center, is clearly identified at the main entrance by a color 50 x 70 ft. glass and marble mosaic designed by J.J. Miro that has become the museum's signature work and a campus landmark. A 1995 renovation created an additional gallery and office space, and a terraced sculpture court at the entrance that further enhances the museum's distinctive visual identity.

Exhibiting artists are frequently brought to campus for public lectures and student workshops, and income from the Ulrich Museum Alliance for Contemporary Art is used to support this outstanding artist program and other special events. In which benefit both campus and community. All members, in turn, enjoy special opportunities to meet some of the nation's leading artists and learn more about contemporary art. Museum membership is free to WSU students. Call (316) 978-3664, email: ulrich@wichita.edu or access the museum web site, www.ulrich.wichita.edu, for membership information and updates on upcoming events and exhibitions.

Policies and Procedures

Student Responsibility

Students at Wichita State University have the following responsibilities:

1. To consult their advisors on all matters pertaining to their academic careers, including choosing programs.

2. To observe all regulations of their college and select courses according to the requirements of the college.

3. To attend all meetings of each class in which they are enrolled (instructors will announce at the beginning of the semester if they consider attendance computing final grades).

4. To fulfill all requirements for graduation.

5. To be personally responsible for fulfilling requirements and observing all regulations at Wichita State University.

6. To answer promptly to all written notices from advisors, deans, and other University officials.

7. To file an Application for Degree card in the dean's office of the appropriate college at least two semesters before the expected date of graduation.

8. To enroll in only those courses for which the stated prerequisite(s) have been satisfactorily completed. Failure to comply with this procedure may result in administrative withdrawal.

Students also should comply with the principles of the following statement:

Wichita State University reaffirms the principle of intellectual freedom in scholarly activity for University students, recognizing the fundamental rights of students in inquiry, discussion, and such actions as they may choose to take. If
on public issues.

The rights and freedoms of students involve concomitant responsibilities. Incumbent on all students, as on all citizens, is the responsibility to observe the University's rules of orderly procedures and the laws of the larger community of which the University is a part. In the matter of actions on public issues, to speak one's opinion, to petition, to distribute literature, to assemble peacefully and hold meetings, to use the persuasion of ideas and other actions within the bounds of orderly and lawful procedures are sanctioned by the University. But infringement on the rights of others, acts or threats of violence to persons, destruction of property, disruption, or other interference with the normal functioning of the University and its personnel and other disorderly and unlawful acts will not be countenanced.

Within its sphere of responsibilities the University will afford students proper procedural safeguards to resolve matters in dispute. Those who willfully violate University standards must expect to face disciplinary action on the part of the institution, which may include reprimand, probation, or suspension, consistent with campus provisions for due process.

Student Code of Conduct

Wichita State University is a learning community comprised of students, faculty, and staff committed to the highest pursuit of intellectual inquiry and knowledge. As members of the WSU community, we:

1. Practice personal integrity and academic honesty.
2. Value the worth, dignity, and uniqueness of each person through words and actions.
3. Demonstrate civic responsibilities by being involved members of the University and the greater Wichita community.
4. Respect University property, the surrounding environment, and the personal possessions of others.

The educational process is ideally conducted in an environment that encourages reasoned discourse, intellectual honesty, openness to constructive change, and respect for the rights and responsibilities of all individuals. The Student Code of Conduct is designed for the promotion and protection of such an environment. It provides guidelines for students' behavior as well as an overview of the discipline process.

A. Definitions

"Faculty member" means any person hired or appointed by the University to teach.

"Student" includes all persons taking credit and non-credit courses at WSU, both full-time and part-time, pursuing undergraduate, graduate, or professional studies.

"Policy" is defined as the written guidelines of the University as found in, but not limited to, The Housing and Residence Life Handbook, Graduate/Undergraduate Catalogs, Faculty Handbook, University Policy and Procedures Manual, and Board of Regents' policies. The most current version of the University Policy & Procedures Manual is located at www wichita ed u under "Administration-More Administration."

In cases of conflicts, Board of Regents' policies shall be considered as controlling.

B. Academic Dishonesty

Students who compromise the integrity of the classroom are subject to disciplinary action on the part of the University. Further, it is the policy of the Kansas Board of Regents that student academic dishonesty should not be tolerated. Violations of classroom standards include:

1. Cheating in any form, whether in formal examinations or elsewhere;
2. Plagiarism, using the work of others as one's own without assigning proper credit to the source;
3. Misrepresentation of any work done in the classroom or in preparation for class;
4. Fabrication, forgery, or alteration of any documents pertaining to academic records;
5. Disruptive behavior in a course of study or aggressiveness toward faculty or fellow students.

The Code is located in section 8.01 of the WSU Policy and Procedures Manual. It is also available through the WSU Student Affairs website: www.studentaffairs.wichita.edu

Academic Progress and Recognition

Academic Progress Reports

Reports on a student's progress are given in several ways.

Midterm Dean Reports. At midsemester, a Dean Report may be sent to students doing below average work, and to their academic advisor, as an indication that their grades need to be improved. Students should meet with their instructor and/or college advisor to discuss the problem.

Absence Letters. Faculty members who make regular attendance checks may inform the dean of a student's college when the student is absent excessively. The dean may either process an administrative withdrawal or request that the student initiate an official withdrawal or make arrangements with the instructor to complete the course. Students failing to take either course of action will receive an F at the end of the semester.

Informal Warning. Students with an overall grade point average below the level required by their college for graduation but below this level for one semester may receive a letter from the dean of their college warning of the consequences of continued substandard performance. Such warnings do not appear on a student's transcript. Student Alert System: Students may also receive e-mail alerts from their advisor or instructor if they are not performing satisfactorily in class.

Academic Recognition

In all colleges, honors criteria are established for Wichita State students by the University and applied equally to all students, whether or not they are in the Emory Lindquist Honors Program.

The Dean's Honor Roll is published each semester and is composed of students enrolled in 12 or more semester hours of graded work who achieve a grade point average of 3.500 or higher for the semester.

Students enrolled in 6-11 hours of graded work per semester who achieve a grade point average of 3.500 or higher for the semester will receive Academic Commendation.

The list of such students will be published each semester. See page 33 for information about degrees conferred with academic distinction.

Departmental Honors

Outstanding students may pursue departmental honors in their major field of study by completing the departmental honors track specified by their major department. (Students in field majors or double majors should consult with their departments and the honors director to develop an individually-tailored honors track.) To enroll as a candidate for department honors, a student must have junior standing and a cumulative grade point average of 3.25 (higher if department requirements so specify).

Departmental honors tracks consist of at least 12 hours of upper-division coursework, including a senior thesis, senior project, senior recital, or equivalent capstone experience. Each department will specify requirements for satisfactory completion of the honors track, but for all departments a minimum grade point average of 3.5 for work in the honors track is required.

Probation and Dismissal Standards

(Academic)

Specific regulations governing probation and dismissal standards are established by each college at Wichita State and are given in the introductory statements in the individual college sections of the Catalog. Students should consult the appropriate section of the Catalog for those standards.

Since 2.000 (a grade of C) is the minimum grade point average required for graduation from Wichita State, students are formally placed (or continued) on probation at the conclusion of every semester in which their cumulative or overall WSU grade point average falls below 2.000, except as noted below. If the college in which students are enrolled has a higher graduation requirement, students may be placed on probation whenever their cumulative or overall WSU grade point average falls below the college's specified level.

Students admitted in good standing will be placed...
on probation when they have attempted 6 hours and their WSU grade point average falls below 2.000. Attempted hours are defined as all hours appearing on the transcript with a grade of A, B, C, D, F, W, cr, NC, L, S, or U.

Transfer students admitted on probation must complete at least 12 semester hours at Wichita State with a 2.000 average before probation may be removed.

A student on academic probation is limited to a maximum of 12 semester hours in the fall and spring semesters. Probation is removed when both the cumulative and WSU grade point averages reach the 2.000 level.

Dismissal standards are set by the various colleges of Wichita State in conformance with the following policy.

Students will not be dismissed if either their WSU grade point average or their last semester's grade point average equals the minimum graduation level of their college. They will remain on probation as long as their cumulative or WSU grade point average is below the minimum University or college graduation standard and their semester grade point average meets the minimum college or division standard.

Students will be dismissed at the end of the semester in which they accumulate 12 attempted credit hours after being placed on probation, fail to earn a semester grade point average at or above the minimum required, and have a cumulative or overall WSU grade point average below the minimum required. Students are not academically dismissed at the end of a semester unless they began that semester on academic probation.

Dismissal from a college because of poor academic performance constitutes dismissal from the University. Nonetheless, a student whose grade point average qualifies him or her for admission to another college may apply to the Committee on Exceptions of that college.

Withdrawal

Voluntary Withdrawal. Students encountering special problems during a semester may voluntarily withdraw from their classes during the first ten weeks of a regular semester or the fifth week of an eight-week summer session and have a W recorded for the course(s). After the official drop deadline (which is posted in the Schedule of Courses for each semester), students may withdraw from one or more courses with a W only if they petition the dean of their college and if their petition is approved. Without that approval, a late withdrawal is considered an F.

Students are advised to consult with their course instructors and academic advisors before they initiate withdrawal procedures. Procedures for withdrawing from a class can be acquired from the student's college or school office or the Registration Office in Jardine Hall.

Administrative Withdrawal. Administrative withdrawal may be initiated by the dean's office of the college in which a student is enrolled, the business office, Division of Student Affairs, or other appropriate University offices for the following reasons:

1. The student's class attendance is so poor that in the instructor's opinion full benefit cannot be derived from the course.
2. The student fails to complete successfully all prerequisites for those courses in which the student is enrolled.
3. The student does not make good on an "insufficient funds" check to WSU or does not make loan payments as scheduled.
4. The student violates the provisions of the student responsibility statements in the University Catalog. (See the Student Responsibility section, page 28.)

The office initiating administrative withdrawal will notify the dean of the college in which the student is enrolled when withdrawal proceedings are initiated. The student is then notified by the dean's office that he or she may be withdrawn administratively so that the student may explain his or her position before final action is taken. If official notices from the dean's office are ignored or returned because the address given by the student at the time of enrollment is incorrect, administrative withdrawal will take place 15 days after the initial notice. A grade of W or F will be officially recorded on the student's permanent record for a course or courses from which the student is administratively withdrawn. The grade of F will be recorded only if the administrative withdrawal is for academic reasons.

Enrollment

Auditor

Students are permitted in credit courses on a non-credit basis with appropriate approval under an auditor classification. To be enrolled as auditors, students must enroll in the same manner and pay the same fees as for credit courses at the University. Auditors may participate fully in the class and expect instructor evaluation of their work. Auditors are expected to attend class regularly. The audited course will appear on the transcript with the grade notation of Au.

Classification of Students

Students are classified according to the following scheme:

- Freshmen: less than 30 semester hours earned
- Sophomores: 30 to 59 semester hours earned
- Juniors: 60 to 89 semester hours earned
- Seniors: 90 semester hours or more earned

As a general rule, a student taking 12 hours during the fall or spring semester is considered a full-time student. For graduate students, 9 graduate credit hours are considered a full load. (Graduate students who are half-time teaching assistants are considered full time if they take 6 or more hours. Graduate students taking all or a majority of courses which carry undergraduate credit must meet the 12-hour requirement to be certified as full-time students.)

During the Summer Session, 6 hours are full time for both undergraduate and graduate students, graduate teaching assistants full time with 3.

Students receiving federal financial aid may enroll in more hours to be considered full time.

Course Numbers

Courses numbered 99 or below do not count toward a degree program.

Courses numbered 100 to 299 are designed primarily for freshmen and sophomores, but students in other classes may be admitted for lower-division credit. Graduate students may not take these courses for graduate credit.

Courses numbered 300 to 499 are taught primarily for juniors and seniors. Freshmen and sophomores may also be admitted if they satisfy the course requisites given in the Wichita State University Catalog. Graduate students may not take these courses for graduate credit.

Courses numbered 500 to 699 are aimed primarily for juniors and seniors, but graduate students also receive graduate credit for these courses.

Courses numbered 700 to 799 are structured primarily for graduate students, but upper-division undergraduate students may be admitted if they meet course requisites.

Courses numbered 800 to 999 are designed for graduate students only and no students may be admitted to these courses unless they have been admitted to Graduate School. (See the Catalog section on graduate credit for seniors for special conditions under which seniors may be admitted to graduate courses.)

Credit/No Credit Courses

Courses numbered below 100 do not carry credit toward a Wichita State degree and are graded Credit/No Credit (Cr/NcR). All credit hours in such courses are parenthesized on the student's transcript as the credit hours are excluded from credit toward graduation. Such courses are excluded from the calculation of the grade point average.

In addition, certain credit courses are graded Credit/No Credit (Cr/NcR). Any department in the University may offer such courses on a Cr/NcR basis. This designation is included in the course description of such courses in the Wichita State University Catalog.

If students withdraw from a Cr/NcR course before the end of the tenth week of the semester (or the third week of the eight-week Summer Session), a grade of W is recorded. If they withdraw from a course after the tenth week of a semester (fifth week of the eight-week Summer Session), they receive a grade of NC, subject to the right of appeal to the University Committee on Admissions and Exceptions.

Cr/NcR may also be granted to a freshman for the first semester of work during the transition semester, discussed in the Transition Semester policy, page 3.

Credit by Examination

Advanced standing credit may be obtained by examination. The credit-by-examination program at Wichita State is designed to enable those who have
Credit may be earned through an Advanced Placement (AP) examination administered by the College Board through the student’s high school. The AP program is administered by the College Board in cooperation with high schools. The test is graded under the supervision of the College Board and the scores, which range from a high of five to a low of one, are sent to the college or university of the student. Credit by AP examination is awarded at Wichita State in many areas. Under the AP program, credit at Wichita State is granted for specific courses. The titles of the specific courses for which credit is granted and the scores necessary for which credit are available from the Wichita State Counseling and Testing Center.

Credit may be earned by examination through the College Board’s College-Level Examination Program (CLEP). CLEP examinations are administered through the Wichita State Counseling and Testing Center. General CLEP examinations are intended for entering freshmen; a student with divisional credit will not receive additional hours for regular letter grades. Students should check with their academic advisor before attempting any test. There are means by which such credit may be earned:

1. Credit may be earned through an Advanced Placement (AP) examination administered by the College Board through the student’s high school. The AP program is administered by the College Board in cooperation with high schools. The test is graded under the supervision of the College Board and the scores, which range from a high of five to a low of one, are sent to the college or university of the student. Credit by AP examination is awarded at Wichita State in many areas. Under the AP program, credit at Wichita State is granted for specific courses. The titles of the specific courses for which credit is granted and the scores necessary for which credit are available from the Wichita State Counseling and Testing Center.

2. Credit may be earned by examination through the College Board’s College-Level Examination Program (CLEP). CLEP examinations are administered through the Wichita State Counseling and Testing Center. General CLEP examinations are intended for entering freshmen; a student with divisional credit will not receive additional hours for regular letter grades. Students should check with their academic advisor before attempting any test. There are means by which such credit may be earned:

3. Credit for certain specified general education courses may be earned through examinations administered by the Wichita State Counseling and Testing Center. Information concerning the specific courses for which these examinations are available and the standards applied in granting credit are available from the Counseling and Testing Center.

4. Individuals admitted to Wichita State may earn credit by departmental examination. In general, students may earn credit by examination for many undergraduate courses not covered in the areas above. Students should apply directly to the chairperson of the department offering the course, consult with the Counseling and Testing Center before taking the exam. The chairperson will be responsible for ensuring that students are informed of the scope of the course, the test used, and other pertinent information.

The grade recorded for credit earned by examination is Credit and it is recorded on a student’s transcript for enrollment in the University. Students may not receive a credit-by-examination test for credit in a course in which they have previously enrolled unless they received a W for the course. They may not take any such examination. Students may not request an examination for course credit in a course for which they do not have the stated prerequisite credit. Credit earned by examination is treated exactly like that earned by class enrollment for internal purposes at Wichita State (class standing, completion of course prerequisites, college requirements, etc.).

Grading System

Wichita State grades include A, B, C, D, F, W, AS, CR, NC, S, U, I, F, and CR.

A Distinguished achievement. Credit given; four credit points per semester hour.
B Superior achievement. Credit given; three credit points per semester hour.
C Average achievement. Credit given; two credit points per semester hour.
D Below average achievement. Credit given; one credit point per semester hour.
F Failing work. No credit hours earned toward graduation; zero credit points per semester hour.

Withdrawal from course. No credit given; no credit points. Does not affect grade point average.
Audit. No credit given; no credit points. Does not affect grade point average. See Auditor, page 30.
Credit (A, B, or C). Used only in the transition semester and for courses defined as CR/NC in the Catalog. Credit given; no credit points. See Credit/No Credit Courses, page 30.
No Credit (D or F). Used only in the transition semester and for courses defined as CR/NC in the Catalog. No credit given; no credit points. See Credit/No Credit Courses, page 30.
S Satisfactory (A, B, or C). Credit given; no credit points assigned.
U Unsatisfactory (D or F). No credit given; no credit points assigned.
Incomplete. Temporarily recorded as a grade when a student is granted an extension of time to complete course work. Credit is postponed and the course is not included in the student’s grade point average until it is completed and a regular letter grade is assigned. Incomplete course must be satisfactorily completed by the end of the next semester in which the student enrolls, summer excluded, or the I is changed to a permanent grade; zero credit points per semester hour.

The following conditions govern incompletes:

1. If students do not enroll at Wichita State within one calendar year following an incomplete and if their work is not completed within that calendar year, they must enroll in that course as a repeat during their next semester of enrollment or the grade will be changed to F. If they do enroll in the course again, the I is changed to W and the grade earned during the repeat semester becomes the grade of record. (If the course is not offered when they enroll, the I changes automatically to F. Students may not enroll in the course in which they received the I unless they do not enroll at WSU for one calendar year.)

The following conditions govern incompletes:

1. If students do not enroll at Wichita State within one calendar year following an incomplete and if their work is not completed within that calendar year, they must enroll in that course as a repeat during their next semester of enrollment or the grade will be changed to F. If they do enroll in the course again, the I is changed to W and the grade earned during the repeat semester becomes the grade of record. (If the course is not offered when they enroll, the I changes automatically to F. Students may not enroll in the course in which they received the I unless they do not enroll at WSU for one calendar year.)

2. If students receive an incomplete on the third enrollment in the same course, they may not enroll in the course again (enrollment becomes subject to the regulations concerning the repeating of courses).

3. Incompletes are not counted when computing grade point average.

4. When students receive a grade of incomplete, they are informed of the policies and procedures governing the removal of incompletes.
Repeat. A prefix to other grading symbols indicating that the course is a repeat of one taken earlier, such as RA, RB, RC, RD, RF, or R. The R prefix has no evaluative function but is used for information only. The following provisions concern repeats:

1. No course may be attempted more than three times. For this policy a repeat of an audit does not count as an enrollment, but a W counts as an enrollment. Exceptions may be made in writing by the chairperson of a student's major department.

2. Any course may be repeated.
   (a) Beginning June 1, 1987, for students first enrolling at a college or university on or after that date, all grades will be included in the computation of the grade point average through Summer 1994.
   (b) Beginning with the Fall 1994 semester, for all students, a grade of A, B, C, D, or F received at completion of a repeated course at WSU will automatically replace all previous grades received for that course in computation of the student's cumulative grade point average. A student may use the option of repeating a course for the purpose of grade replacement for five (5) different courses during the student's academic career. Grades received in courses taken at another institution may not be used to replace grades in courses taken at WSU.

3. Students may audit the same course any number of times.

CRe Credit by examination or by credentials in lieu of formal enrollment in college course work. The symbol CRe is used for College Board Advanced Placement (AP) credit, for College-Level Examination Program (CLEP) credit, for course credit awarded on the basis of the American College Test (ACT), for credit by departmental examination and for credit by credentials (military and similar background). Credit given; no credit points. See Credit by Examination, page 30.

Courses may not be changed from one status to another—for example, graded to audit—after the enrollment period (through the drop/add week), except through petition to the University's Exceptions Committee.

Other special terms are used in reference to grading, as described below.

Grade Point Average (GPA). The grade point average (also called grade point index) is computed by dividing the total number of credit points by the total number of semester hours completed for which regular letter grades (A, B, C, D, and F) are assigned. The grades A, B, C, D, F, N, Ncr, S, U, and CRe are always excluded from grade point average computations.

Credit Points. For each hour of work the student takes, credit points are assigned regular letter grades (A, B, C, D, and F) to permit averaging of grades: A=4, B=3, C=2, D=1, and F=0.

Course Attempted. An attempted course indicates that the student has enrolled officially in the course and that the student may have completed the course, been granted an incomplete or withdrawn. Attempts include courses receiving the grades A, B, C, D, F, W, Cr, Ncr, S, U, and I but exclude As and CRe.

Course Completed. A completed course is one in which a letter grade of A, B, C, D, F, Cr, Ncr, S, or U has been assigned.

Credit Hours Earned. Credit hours earned means that credit is given (A, B, C, D, Cr, S, or CrE). No student may earn hours of credit for any one course more than once, unless the description in the Wichita State University Catalog specifically states that the course is repeatable for credit.

Graduate Credit for Seniors (Senior Rule) Seniors at Wichita State University or neighboring bachelor's degree-granting institutions who have an overall grade point average of 3.000 or above in their major field and in upper-level division courses and who are within 10 hours of completing the bachelor's degree may take courses for credit under the Senior Rule. This work must go beyond the requirements for the undergraduate degree and the course must be completed within the semester in which a student takes the graduate courses. Students also must be admitted to the Graduate School. Application for the Senior Rule is made to the Graduate School and must be approved by a student's major advisor, chairperson for the department in which the course is taken, undergraduate dean, and the dean of the Graduate School before any courses can be taken for graduate credit.

Transfers Within the University Students may transfer from any undergraduate degree granting college to another provided they meet, as a minimum, the admission requirements of the second college.

For specific information about probation standards and admission requirements of individual degree-granting colleges, refer to the individual college sections of the Catalog.

Exceptions

Academic Forgiveness Students who have accumulated a grade point average of less than 2.000 may petition the dean of his or her college and the college Committee on Exceptions to be admitted to a degree program with no college credit and no grade point average.

To qualify, petitioners must be at least 25 years old, must have been out of a degree program of college studies for at least four years, and must demonstrate ability to progress in college work.

If the petition is approved, all prior college courses and grades are recorded on the transcript, followed by the notation "admitted without credits or grades by committee action."

The policy may be applied to Wichita State University enrollment as well as to work at other colleges.

Change of Grades Changes of grades due to errors in grading or if may be initiated by an instructor at any time during the academic year following the assignment of the original grade. A grade change also may be initiated by the chairperson of the department that offered the course, if and only if, the instructor is not involved in the case. The approval of the dean of the college department concerned is needed to have the grade entered on the student's transcript. The change must then be notified of the chairperson of the department concerned that the grade has been changed.

An instructor who wishes to request a change of grade assigned more than one year earlier may petition the dean's office, if the student was unable to withdraw off-grade or the student was not involved in the case. The approval of the dean of the college department concerned is needed to have the grade entered on the student's transcript.

When implemented, the policy waives all prior credit and grades except the special non-degree-bound policy under the open admission policy.

Court of Student Academic Appeals The faculty at Wichita State University has established an appeals procedure to resolve disputes arising out of the class of the Court of Student Academic Appeals. The court hears appeals from students who believe they have been treated unfairly in grading or in an instructor's charges of plagiarism, cheating, or similar offenses. The court is designed to help resolve disputes between students and faculty members.

The student must file an appeal within one semester after the grade is assigned (excluding summer). The court reserves the right, in exceptional cases, to accept an appeal after the one semester period.
The academic year is divided into three terms: fall, winter, and spring. Each term is 15 weeks long, and students must complete at least 15 credit hours during each term to maintain full-time status.

Grading System
Grades are assigned on a 4.00 scale, with A being the highest and F the lowest. Students must maintain a cumulative GPA of 2.00 to graduate. Students who receive a grade of F may retake the course to improve their grade.

Transfer Credit
Students transferring from other institutions must meet the same academic standards as current students. Transfer credit is awarded based on the rigour and equivalency of courses.

Admissions
Wichita State University accepts applications from the fall semester through the spring semester. Applicants must submit their high school transcript, SAT or ACT scores, and a letter of recommendation from a high school counselor.

Advanced Placement
Students who have earned AP scores of 3 or higher on exams may receive credit for courses completed in high school.

Dean's List
Students with a minimum GPA of 3.50 are placed on the Dean's List for the semester. Students must remain on the Dean's List for at least one academic year to be eligible for the Dean's Scholarship.

Second Bachelor's Degree
Students who have completed a Bachelor's degree at another institution may apply for a second Bachelor's degree at Wichita State University. Students must complete a minimum of 30 hours in residence and meet the academic requirements of the second degree.

Most Important
- Students must maintain a minimum GPA of 2.00 to graduate.
- Transfer credit is awarded based on the rigour and equivalency of courses.
- Advanced Placement exams can earn students credit for courses completed in high school.
- Dean's List recognizes students with a minimum GPA of 3.50 for the semester.
- Students who have completed a Bachelor's degree at another institution may apply for a second Bachelor's degree at Wichita State University. About 14.1% of the student body is transferred from other institutions.
Policies and Procedures General

Release of Student Information Policy
The Family Educational Rights and Privacy Act of 1974 (FERPA) is a federal law which provides that the institution will maintain the confidentiality of student education records.

Wichita State University accords all the rights under the law to students. Those rights are: (1) the right to inspect and review the student's education records; (2) the right to request the amendment of the student's education records to ensure that they are not inaccurate, misleading, or otherwise in violation of the student's privacy or other rights; (3) the right to consent to disclosures of personally identifiable information contained in the student's education records, except to the extent that FERPA authorizes disclosure without consent; (4) the right to file with the U.S. Department of Education a complaint concerning alleged failures by Wichita State University to comply with the requirements of FERPA; and (5) the right to obtain a copy of Wichita State University's student records policy. A complete copy of the policy may be obtained by contacting the Registrar's office or the Dean of Students' office.

No one outside the institution shall have access to nor will the institution disclose any information from students' education records without the prior written consent of the student except to personnel within the institution who have a legitimate educational interest, to persons or organizations providing students financial aid, to accrediting agencies carrying out their accreditation function, to persons in compliance with a judicial order, and to persons in an emergency in order to protect the health or safety of students or other persons. All these exceptions are permitted under the Act.

Within the Wichita State community, only those members, individually or collectively, acting in the students' "legitimate educational interests" are allowed access to student education records. These members include personnel in the offices of Admissions, Registrar, Controller, Computing Center, Dean of Students, Financial Aid, Career Services, Cooperative Education, Planning, Testing, Library, College deans, academic advisors, and other administrative and academic personnel within the limitation of their need to know. "Legitimate educational interests" means (1) the information or records requested is/relevant and necessary to the accomplishment of some task or determination; and (2) the task or determination is an employment responsibility for the inquirer or is a properly assigned subject matter for the inquirer's employment responsibility.

A Social Security number and student status data may be provided to other state agencies for use in detection of fraudulent or illegal claims against state monies.

Public Notice Designating "Directory Information"
At its discretion the institution may provide "Directory Information" to anyone in accordance with the provisions of FERPA.

Wichita State University hereby designates the following student information as public or "Directory Information":

- Name, address(es), email address, telephone number(s), dates of attendance, classification (freshman, sophomore, etc.), enrollment status (full-time, half-time, less than half-time), class type (day, day/evening, weekend only), previous institution(s) attended, major field(s) of study, awards, honors (includes Dean's list), degrees conferred (including dates), past and present participation in officially recognized sports and activities, physical factors (height, weight of athletics). The name(s) and address(es) of the student's parents or guardian(s) may be disclosed when used for an official University news release about the student's receipt of degrees or awards or about participation in officially recognized activities or sports.

Currently enrolled students may withhold disclosure of "Directory Information" (on an all or none basis) to non-institutional persons or organizations. You have an option to protect your privacy and not have such information as your address and telephone number released. Forms requesting the withholding of this information are available in the Registrar's Office, 117 Jardine Hall, and are returned to that office. Otherwise, the University assumes that you approve of disclosure of that information. The completed form must be received at the Registrar's Office by the end of the second week of the fall semester if you do not want to be included in the printed Campus Directory, which is published each fall and is available to people outside WSU. A Student-Phone Book is also available on the WSU-Web site: your name, and phone number will appear there unless you complete and submit the above-mentioned form.

Family Educational Rights and Privacy Act
1. Definitions
   A. Consent: Consent shall be in writing and shall be signed and dated by the student giving consent. It shall include: (a) specification of records to be released; (b) purposes for such release; and (c) parties or class of parties to whom such records may be released.
   B. Directory Information: That information described in Section 99.3 of the "Final Rule on Education Records, Privacy Rights of Parents and Students." The information is defined as: "Information contained in an education record of a student which would not generally be considered harmful or an invasion of privacy if disclosed. It includes, but is not limited to the students name, address, telephone listing, date and place of birth, major field of study, participation in officially recognized activities and sports, height and weight of members of athletic teams, dates of attendance, degrees and awards received, and the most recent previous educational agency or institution attended."
   C. Disclosure: Permitting access to or the release, transfer, or other communication of educational records of the student or the personally identifiable information contained therein, orally or in writing, by electronic means, or by any other means to a party.
   D. Education Records: Those records that are directly related to a student and that are maintained by the University or by a party acting for the University.

Excluded from the category of "education record" are the following and to which the law does not guarantee the right of student access:
1. Records created by an individual staff member that are not revealed to any other individual except to a person who might substitute for, or replace, the original staff member.
2. Medical and psychological records that are maintained only in connection with provisions of treatment to the student and that are not available to other persons other than those providing treatment except that such records may be personally reviewed by physician or other appropriate professional of the student's choice and with the student's written consent.
3. Records of the WSU Police Department maintained solely for law enforcement purposes, which are maintained separately, and which are not disclosed to individuals other than law enforcement officials sharing the same jurisdiction.
4. Records that contain only information related to a person after that person was no longer a student at the University. An example would be information collected by the University or the WSU Alumni Association pertaining to the accomplishments of alumni.
5. Employment records of any person if maintained in the normal course of business and used only for purposes relating to the employment, unless the person is employed at the University or because of her/his status as a student (that is, a student hourly). In such cases, student employment records are education records but are to be maintained separately from other education records.
6. Legitimate Educational Interests: The interests of University personnel who have a demonstrable legitimate need to review records in order to fulfill their official professional responsibilities. Such responsibilities must involve the University in its primary educational and scholarly functions and/or secondary administrative functions of maintaining property, disbursing funds, keeping records, providing living accommodations and other services, sponsoring activities, and protecting the health and safety of persons or property in the University community. If question arises concerning the legitimacy of a request to review records, such question shall be referred to the vice president for student affairs.
7. Parent: Includes a parent, a guardian, or an individual acting as a parent of a student in the absence of a parent or guardian.
8. Personally Identifiable Information: Includes the name of the student, the student's parent(s)' or other family member(s'); the address of the student...
personal identifiers, such as social security or student numbers; personal characteristics or other information that would make the student's identity easily traceable.

11. School Official: Faculty, staff, student employees or committees (when the members of the committee are appointed or elected to an officially constituted committee) that perform a function or task on behalf of, and at the request of, the University; its faculty, colleges, schools or divisions.

1. Student: For purposes of this policy, anyone who is or has been enrolled at Wichita State University, with the following exception:

A person who has applied for admission to, but has never been in attendance at a component unit of the University (such as various schools and colleges of the University), even if that individual is or has been in attendance at another component unit of the University, is not considered to be a student with respect to the component to which an application for admission has been made.

1. Unit Custodian of Student Records: Except as otherwise designated in this policy, the head of each academic or administrative unit is responsible for the education records within the unit.

2. Student Access to Education Records

A. A student has the right and shall be accorded the opportunity to inspect, review, and/or receive copies of his or her educational record, except as provided for below. The University must comply with the student's request within a reasonable period of time, not to exceed 45 days after the request.

B. If the student has the right to a reasonable request for explanation of the records and to copies of the records where necessary to provide full inspection and review: Such copies will be provided at the student's request and expense; however, the charge to the student for any such records may not exceed $2.50 per page. The University may not charge a fee to search for or retrieve a record. If any question arises as to the identity of the requesting student, the student shall be asked to provide his or her University ID card and/or other positive identification.

D. The University is not required to afford inspection and review of the following records:

(1) Financial records of the student's parents submitted as part of the financial aid process;
(2) Confidential letters and statements of recommendation that were placed in the student's education records prior to January 1, 1975, if such letters were submitted with an understanding of confidentiality, and are used only for the purpose for which they were specifically intended;
(3) Confidential letters and statements of recommendation received after January 1, 1975, for which the student has signed a waiver of the right to access and which pertain to: (a) admission to this or any other educational institution or agency; (b) application for employment; or (c) receipt of an honor or honorary recognition so long as these letters are used solely for the purpose(s) for which they were specifically intended.

E. An individual who is an applicant for admission to the University, or to one of its component parts, or who is a student in attendance at the University, may waive his or her right to inspect and review confidential letters and confidential statements of recommendation, except that the waiver may apply to confidential letters and statements only if:

(1) The applicant or student is, upon request, notified of the names of all individuals providing the letters or statements;
(2) The letters or statements are used only for the purpose for which they were originally intended; and
(3) Such waiver is not required by the University as a condition of admission to or receipt of any other service or benefit from the University.

All waivers under this paragraph must be executed by the individual, regardless of age, rather than by the parent of the individual. All waivers must be in writing and signed by the student.

If an education record contains information on more than one student, the student may inspect only the information on himself or herself.

3. Waiver of Rights

The University may request, but not require, students to waive rights under this policy; the waivers must be in writing and signed by the student. Applicants for admission to the University and eligible students may waive rights to review confidential letters of recommendation only if:

(1) The applicant or student, upon request, is notified of the names of all persons providing letters;
(2) The letters are used only for the purpose for which they were originally intended;
(3) The waiver is not required as a condition of admission or for any other service or benefit of the University.

Waivers may be made with respect to specified classes of education records and/or persons or institutions.

The student may revoke any waiver in writing, the revocation to apply only to documents received or entered into the record after the date of execution of the revocation.

4. Disclosure of "Personally Identifiable" and "Directory" Information

The University shall obtain the written consent of the student before disclosing personally identifiable information from the education records of a student, other than directory information, except as otherwise provided in this policy.

The University may, without the consent of the student, disclose directory information, as described earlier. If a student wishes to have such information withheld, he/she must notify the Office of the Registrar. If a student wishes to prevent the publication of such information in the University telephone directory, he/she must notify the Office of the Registrar.

The University may disclose personally identifiable information without the consent of the student to school officials within the institution determined to have legitimate educational interests; to authorities to comply with a judicial order or subpoena, provided the University makes a reasonable effort to notify the student in advance of compliance (unless judicial order or subpoena specifically prohibits such contact); to financial aid personnel in conjunction with an application for financial assistance; to organizations conducting studies for accrediting functions; and to appropriate persons in a health or safety emergency. Disclosure of personally identifiable information without the consent of the student may also be made when required by law or government regulation.

The University may disclose personally identifiable information from the education records of a student without a student's consent in connection with a student's request or receipt of financial aid, provided the disclosure is needed: (1) to determine the eligibility of the student for financial aid; (2) to determine the amount of financial aid; (3) to determine the conditions which will be imposed; or (4) to enforce the terms or conditions of the financial aid.

The University may disclose personally identifiable information from the education records of a student to appropriate parties in connection with an emergency if knowledge of the information is necessary to protect the health or safety of the student or other individuals.

Disclosures for this purpose shall take into account: (1) the seriousness of the threat to the health or safety of the student or individuals; (2) the need for information to meet the emergency; (3) whether the parties to whom the information is disclosed are in a position to deal with the emergency; and (4) the extent to which time is of the essence in dealing with the emergency.

The University Student Health Service is required to report to the Kansas Department of Health the names of students who have certain communicable diseases such as hepatitis, tuberculosis, and venereal disease. The Health Service is also required to report to local law enforcement officials the name of any student who is wounded with a deadly weapon.

5. Release of a Student's Grades

Board of Regents policy provides that the University may not withhold the written record of grades earned by any dependent student when the University receives a written request for any such grades from a student, a student's parents, or a student's legal guardian. The student will be notified in writing of any disclosure of his or her grades made to his or her parents or legal guardian. Dependency for this purpose is defined by the Internal Revenue Code of 1954, Section 152. Should the student be financially indebted to the University, the transcript request will not be honored and the person submitting the request will be so notified.

6. Notice to Third Parties

The University must inform the parties to whom personally identifiable information is given that they are not permitted to disclose that information to others without the written consent of the student and that the information is to be used only for the purpose(s) intended.
7. Providing Copies of Disclosed Records

When the unit custodian discloses personally identifiable information from the education record of a student, the unit custodian shall, at the student's request and expense, provide a copy of the disclosed record to the student, unless otherwise specified by this policy.

8. Destruction of Records

Each office which maintains education records shall adopt its own policy with regard to destruction of education records. No education record, however, may be destroyed if there is an outstanding request to inspect and review the record. Also, the record of access to the education record and any explanations which are a part of the record must be maintained for as long as the education record to which it pertains is maintained.

9. Maintaining Records of Request and Disclosures

The unit custodian shall maintain records of requests and disclosures of personally identifiable information from a student's education record. The record shall include, whether requests are granted or not, the name(s) of the person(s) who requested the information and their legitimate interests in the information. Records of requests and disclosures will not be maintained:

(a) for requests made by the student him/herself;
(b) for requests for which the student has given written consent;
(c) for requests made by school officials with legitimate educational interests;
(d) for requests for directory information.

The record of requests and disclosures may be inspected by the student, by school officials responsible for the custody of the records, and by federal and state officials who have been given permission to access the vice president for student affairs.

10. Students' Right to Challenge Information Contained in Education Records

A student may challenge the content of an education record on the grounds that the record is inaccurate, misleading, or otherwise in violation of the privacy or other rights of the student. No hearing under this policy shall be granted for challenging the underlying basis for the grade. However, the accuracy of its recording could be challenged.

The following procedure for challenging the content of an education record shall apply:

(a) The student has the right, upon reasonable request, for a brief explanation and interpretation of the record in question from the respective unit custodian.
(b) The unit custodian of the challenged education record, after reviewing the record with the student, may instruct the student to submit in writing the student's request to delete or modify the record in question, the student shall be notified of the decision and of the student's right to a formal hearing upon the request.
(c) All requests for formal hearings by the student shall be directed to the vice president for student affairs, and shall contain a plain and concise written statement of the specific facts constituting the student's claim.
(d) The hearings shall be conducted by a University staff member (hearing officer) who does not have a direct interest in the outcome of the challenge and who shall be appointed by the vice president for student affairs or his/her designee. The hearing shall be held within a reasonable time of receipt of the student's request and the student shall be notified reasonably in advance of the hearing date, place, and time of the hearing.
(e) At the hearing the student shall be afforded a full and fair opportunity to present evidence relevant to his/her claim and may, at his or her expense, receive assistance or be represented by any individuals of his/her choice.
(f) Based solely on the evidence presented at the hearing and within ten (10) working days of the hearing, the hearing officer shall make a written recommendation to the vice president for student affairs or his/her designee together with written findings of fact concerning the student's request. Within an additional fourteen (14) working days of receipt of the hearing officer's report, the vice president for student affairs or his/her designee shall notify the student in writing of the decision. The decision must include a summary of the evidence and the reasons for the decision.

In the event the decision of the vice president for student affairs is adverse to the student's request, the student shall be notified of the opportunity to place with the education record a summary statement commenting upon the information in the records and/or setting forth any reason for disagreeing with the decision. If the questioned document is released to a third person, the student's summary statement shall accompany the release of any such information. The summary information shall be maintained for as long as the contested record is maintained.

If a student challenge to the content of a given record is successful, the University shall amend the education record accordingly and inform the student. Upon the student's specific written request to the vice president for student affairs, the University shall make a reasonable effort to contact student-designated third persons who have received copies of the previous record to inform them of the change which has been made.

11. Complaint Procedure

If a student believes that the University is not in compliance with the Privacy Act, he/she should check first with the office involved and/or the Office of the Vice President for Student Affairs.

If a student wishes to file a complaint with the federal government concerning the University's failure to comply with the Privacy Act, he/she must submit the complaint, in writing, to the Office of the Family Educational Rights and Privacy Act, Department of Health Education and Welfare, 330 Independence Avenue S.W., Washington, D.C. 20201. The FERPA office will notify the student when the complaint has been received. The FERPA office will investigate the complaint, and may require further information of its findings and basis for such findings. In the event the University is found not to be in compliance, it will be afforded the necessary time to comply. If it does not then comply, the matter will be sent to a review board for a hearing. For guidelines concerning this hearing procedure, see Section 99.64 and following of the Privacy Act.

Nondiscrimination

Notice of nondiscrimination

1. It is the stated policy of Wichita State University to prohibit discrimination in employment and in educational programs and activities because of race, color, religion, gender, age, marital status, national origin, sexual orientation, political affiliation, disabled/Vietnam-era veteran status, or physical or mental disability.

2. In working to achieve and maintain a welcoming and discrimination-free environment, it is necessary and appropriate that employees and students be encouraged to make complaints and concerns about perceived discriminatory behaviors known to University supervisors and officials.

3. Any University employee or student who engages in retaliatory conduct against a University employee or student who has filed a complaint alleging discrimination or otherwise exercised their rights and privileges against illegal discrimination will be subject to disciplinary actions pursuant to established University procedures, up to and including termination of employment or student status.

4. This prohibition against retaliatory conduct applies regardless of the merits of the initial complaint of illegal discrimination.

Any person having inquiries concerning Wichita State University's compliance with the regulations implementing Title VI, Title IX, or Section 504 is directed to the Office of Equal Employment Opportunity, Wichita State University, 1845 Fairmount, Wichita, Kansas 67260-0145. The Office of Equal Employment Opportunity has been designated by Wichita State to coordinate the institution's efforts to comply with the regulations implementing Title VI, Title IX, Section 504, and Americans with Disabilities Act. Any person also may contact the Assistant Secretary for Civil Rights, U.S. Department of Education, regarding the institution's compliance with these regulations.

The WSU Catalog is available online at the University's Web site, www.wichita.edu. Inquiries should be addressed to the Office of Disability Services for large print, Braille, and audio tape versions.

Injury or Accident

The State of Kansas and Wichita State University do not insure against accidents or injury to students which may occur during University-sponsored activi-
ties on or off campus. The University will make every reasonable attempt to advise students concerning potential danger of accident or injury. Students are expected to act responsibly by taking necessary precautions to prevent accidents. Students also are advised to protect themselves from the financial burden of accident or injury through a personal insurance policy.

Residence Defined

The residence of students, for tuition and fee purposes, is determined by acts of the Kansas legislature, rather than University policy. The legislature has also granted the Kansas Board of Regents certain authority to adopt regulations and guidelines for the determination of residence, within the broader state law. The law and regulations are different than those that govern residency for any other purpose.

According to the law and regulations, a resident, for tuition purposes, is someone who has resided (been physically present) in Kansas for 12 consecutive months prior to enrollment/re-enrollment and who has demonstrated, during those 12 months, the intent to make Kansas their permanent home. Intent is evaluated in light of: (1) the person's statement about why they came to Kansas in the first place and (2) what the person has done since coming to Kansas (objective, verifiable facts). Many factors are considered when evaluating intent. The Kansas Board of Regents' guidelines list nonconclusive factors or circumstances that could help support a claim for resident classification. The guidelines also specify a qualifier: "Any such factor, to be given weight, must be of at least one year's duration prior to enrollment/re-enrollment."

Residents of Kansas (for fee purposes) who leave the state retain their residency as long as they return to Kansas permanently within 12 months of departure.

A person who comes to Kansas to go to school, and who enrolls full-time every semester after arriving, may not be able to demonstrate the intent to remain in Kansas permanently, as long as that pattern continues. In contrast, certain specific exceptions are authorized by state law. The following people, and their spouses and dependent children, are authorized to pay the equivalent of resident fees immediately: (a) regular employees of the University (does not apply to student assistants or graduate assistants); (b) people on full-time active military duty, stationed in Kansas; (c) people discharged or retired from active military service within the last thirty days under conditions other than dishonorable and who served at least two years in Kansas; (d) people who graduated from a four-year program at an accredited Kansas high school within 6 months of their enrollment at a state university, and who were Kansas residents for fee purposes at, or within 12 months of, high school graduation; (e) dependent students as long as at least one parent is Kansas resident for fee purposes; and (f) people who were recruited to, or transferred to Kansas within the last 12 months for a full-time job, and their spouse and dependent children.

Students applying for residency should contact the Registrar's Office, 102 Jardine Hall. There are many details about establishing Kansas residency for tuition purposes that will be explained upon further inquiry.

Residency of new students enrolling for the first time at Wichita State is determined by the appropriate (undergraduate, graduate, or international) admissions office according to the above law/regulations. Such students should address questions concerning residency to the appropriate admissions office.

When a continuing student, who was initially classified as a non-resident, thinks he/she meets these residency requirements, then he/she must apply for residency using a form available from the Registrar's Office. Lower fees do not mean that someone has been classified as a resident—there are no non-resident fees, for example, for workshops or off-campus courses.

The responsibility of registering under proper residence is placed on the students. If there is any possible question of residence classification, it is the duty of a student when registering and paying fees to raise the question with the Registrar's Office. Students who disagree with their residency classification are entitled to an appeal, provided they file a written appeal with the registrar within 30 days from enrollment and pay the fees as originally assessed. A standard appeal form is provided by the Registrar's Office. If notice of the appeal is not given in writing within 30 days, the classification or reclassification by the registrar becomes final. Appeals are reviewed and decided by the University Committee on Residency, and its decision is final. The committee is not empowered to make exceptions, just to apply the law and regulations to individual circumstances.

Students must report their correct address at the time of registration each semester. The address given must be the student's actual place of residence, since it will be the one to which all correspondence from Wichita State is sent. Any change in residence must be reported within three days to the Registrar's Office. More complete information on the residence law and regulations can be obtained from the Registrar's Office.

Student Identification

All students are identified in the University's computer files by a unique nine-digit number. A Social Security number may be used for this purpose, however, no student is required to give their Social Security number for student identification purposes. A separate nine-digit identification number can be assigned by the Office of Admissions for applicants who decline to provide their Social Security number.

All WSU students are required to have a WSU photo identification card called the Shocker Card. The card does not expire and is used to determine a student's current enrollment status. The initial card is free. Lost, stolen or discarded cards may be replaced for a fee.

The Shocker Card is the only means by which students can utilize the following services: Abilene Library, Heskett Center, Athletic Ticket Office, Student Government, Student Health Services, WSU Police Department, and the Shocker One Step (SOS) system.

Offender Registry

Law enforcement agency information concerning registered sex offenders who are employed by or who are currently enrolled at Wichita State University may be obtained from the University Police Department. This information is made available to the campus community pursuant to the requirements of the Campus Sex Crimes Prevention Act. Further information on any registered offender can be obtained from the Kansas Board of Investigation or the sheriff's office in the registrant's county of registration.

Safety

Campus safety is a priority at Wichita State, and based on FBI statistics reported by universities nationwide, WSU is one of the safest campuses of its kind in the state and nation. Our well-lighted campus and parking lots are regularly patrolled by WSU police officers and student cadets. Beginning at 5:30 p.m., the University provides shuttle bus service from residence halls to the academic buildings, and student cadets are available to escort students in the evenings. In case of emergencies, phones (designated by a blue light at the top of the pole) with direct access to the campus police station are strategically placed around the campus.

Campus crime statistics are reported in the Schedule of Courses and on the Web. Contact the University Police Department at (316) 978-3450.
W. Frank Barton School of Business

John M. Beehler, PhD, Dean
100 Clinton Hall • (316) WSU-3200
www.wichita.edu/barton

Mission statement: The W. Frank Barton School of Business prepares individuals to be business leaders in the global entrepreneurial marketplace. In this effort, it:

- provides quality undergraduate, graduate, and professional educational programs in business that encourage lifelong learning.
- engage in scholarly research to develop business and economic knowledge and enhance its applications.
- practice good citizenship by serving our constituencies and the University community.

The vision of the W. Frank Barton School of Business is to be a preferred source for recruiters of high quality business school graduates in this region.

Consistent with the University’s role as the Regents’ urban institution, the Barton School aggressively pursues regional and national prominence for its academic and professional programs.

This mission is influenced by the location of the school in the largest economic and cultural center in the State of Kansas. As an integral part of the state’s designated urban university, the faculty of the Barton School of Business are committed to programs and activities that will help sustain the state that this urban center makes to the economic, professional, and cultural health of the state and nation.

Within this context, the faculty of the school have adopted the following educational goals of the Barton School which are listed below under the headings of Students, Faculty, Programs. For each grouping, a preamble states the basic values of the Barton School faculty.

Students: Students are the reason for the Barton School’s existence. It is the faculty’s responsibility to create programs and a learning environment that ensure the ultimate success of students. We, the faculty, want our students to evaluate positively their Barton School experiences, both while enrolled in courses and afterwards.

Goals: To ensure that students completing Barton School programs possess skills that make them competitive with students from the best business programs in the region. To increase quality and quantity of students.

Faculty: Faculty are the means by which the University creates a learning environment. The quality of the faculty and the opportunities provided to faculty for continuous improvement are of paramount importance to the success of the Barton School.

Goals: To have faculty who are widely recognized for their commitment to students and scholarship.

Programs: The programs offered by the Barton School link it to its multiple constituencies. The rich diversity of these programs reflects the University’s unique metropolitan mission.

Goal: To increase the recognition of the Barton School through programs that are relevant, competitive, and up-to-date.

The school is a member of AACSB International — The Association to Advance Collegiate Schools of Business. Its undergraduate and graduate programs are accredited by this organization. The School of Accountancy has separate accreditation from AACSB for the undergraduate and graduate programs in accounting. We are one of only 136 schools globally to have both accreditations from AACSB.

Three of the centers sponsored by the Barton School are described below.

The Center for Economic Development and Business Research (CEDBIR) engages in business and economic research for a wide variety of clients in both private and public sectors. The center collects, analyzes, and disseminates information to support activities of government, education, business, and economic development organizations.

The CEDBIR maintains a comprehensive database of economic indicators including population, personal income, employment, construction, and census data. Activities focus on issues related to the economic health of the region. The center publishes the Kansas Economic Report and a supplemental monthly, Kansas Economic Indicators.

The Center for Entrepreneurship, housed in Devlin Hall encourages entrepreneurial thinking and activities through quality education, research, and community involvement to better serve its customers and stakeholders. The center provides a comprehensive curriculum in entrepreneurial studies at both the undergraduate and graduate level.

The Center for Management Development (CMD) offers noncredit management development seminars to Wichita and the surrounding area. The CMD seminars and workshops have been acclaimed for their usefulness to practicing business people and other professionals in a wide variety of organizations.

Degrees Offered
Undergraduate
Bachelor of Business Administration
The undergraduate curriculum of the Barton School of Business leads to the Bachelor of Bachelor Administration (BBA). Areas of emphasis or majors are offered in several fields within the School of Accountancy and the following departments: economics, finance, real estate, and decision sciences; management; and marketing and entrepreneurship.

Students may obtain a second bachelor’s degree in the Barton School of Business if they (1) complete a minimum of 30 hours in residence in the Barton School of Business (in addition to the work required for the first bachelor’s degree) and (2) satisfy the school’s general requirements and emphasis/minor requirements in effect at the time they embark on the program leading to a second bachelor’s degree.

Graduate
Master’s degree programs in the school lead to the Executive Master of Business Administration (EMBA), Master of Business Administration (MBA) and Master of Accountancy (MACC) and the Master of Arts (MA) in economics.

For additional information on graduate programs see the Wichita State University Graduate Catalog.

Business Emphases in Other University Programs
Students in Fairmount College of Liberal Arts and Sciences may major in economics. Students from all colleges may minor in accounting, business administration, economics, entrepreneurship, finance, management, and marketing. A minor in business administration is not available to students pursuing a degree in the Barton School of Business.

A field major in international studies is offered in cooperation with Fairmount College of Liberal Arts and Sciences for students interested in specializing in a foreign area of the world or in international business, economics, or affairs. The major prepares students for careers in international organizations with the U.S. government and in business firms. Additionally, a cooperative chemistry/business program is offered in the Department of Chemistry.

The Barton School of Business provides the organizational administration course work for the Health Services Management and Community Development program. This program prepares students to be qualified health care administrators in one of the many types of health facilities.

Policies

Admission
Degree-bound students who select a business major are admitted to the Barton School of Business in program status. All students in the Barton School of Business must maintain a 2.250 grade point average. Students must complete 6 hours of English composition, 3 hours of communication, and 3 hours of college algebra with a grade of C or better in each within their first 48 hours of enrollment in the Barton School of Business. Failure to complete this requirement will bar a student from enrolling in business courses.

Advanced standing in the Barton School of Business is available to students who have (1) completed 6
should be made in the student records office, 106 Clinton Hall.

Extension or Correspondence Work
Not more than 6 hours of the last 30 hours or ten of the total number of hours required for graduation may be in extension or correspondence courses. Permission of the dean must be secured before a student may take such courses. No extension or correspondence courses are allowed that (1) duplicate courses required for any degree granted by the school, (2) are required for any emphasis within the school, or (3) are offered at the junior or senior level in the school.

Limitations on Student Load
Initially admitted Barton School of Business students are limited to a maximum of 16 hours, which may be added 1 hour of elective. Students admitted to advanced standing in the college are limited to a maximum of 18 hours, which may be added 1 hour of elective.

All Barton School of Business students are limited to enrollment in one course during a summer session, one course in any four-week summer session and two courses in any eight-week summer session. If a student is enrolled in both an eight-week and a four-week summer session, the maximum enrollment is two courses.

Cooperative Education (Co-op)
The Barton School of Business participates in the University's Cooperative Education program. The program is designed to provide relevant paid employment experiences that integrate, complement, and enhance the student's academic program. Students are placed in Co-op positions in a variety of business settings, including government agencies, financial institutions, social agencies, accounting firms, entrepreneurial companies, and many others. Individual academic projects are formulated in consultation with the student's faculty advisor.

Business students may enroll in 1 hour of Co-op semester with a 2.250 cumulative and WSU grade point average as early as their sophomore year. Students enrolling in 2 or 3 hours of Co-op during a single semester must have junior standing and at least a cumulative and WSU GPA of 2.250 or GPA designated by the major. The number of hours of Co-op credit that can be applied to different majors and minors is explicitly stated in each area and has an overall limit of 6 credit hours for the Barton School of Business.

Co-op placements must be approved by the student's faculty sponsor. More information is available from the business coordinator in the Cooperative Education office.

Advising
The focus of advising in the Barton School of Business is to help students progress toward their educational objectives. The school's advising system offers:

1. Transcript evaluation for transfer students and continuous monitoring of degree progress for all students;
2. Suggestions of specific courses to be selected in a given semester or summer session;
3. Program planning designed to outline an entire course of study; and
4. Referral to appropriate University resources for students seeking career guidance, personal counseling, or other types of assistance.

Advising is designed to provide assistance where desired and appropriate. Students, especially those nearing graduation, are encouraged to make full use of the system.

Types of Advising Assistance Available

Transcript Evaluation. Two aspects of transcript evaluation affect students: (1) the evaluation of course work to be transferred with Wichita State University for a degree, and (2) the continuing evaluation of completion of graduation requirements.

Evaluation of transfer work is accomplished by the school's student records office, 106 Clinton Hall, working in conjunction with the dean's office and the various departments within the school.

The student records office also keeps a current record of each student's progress at Wichita State University. Many students will be able to take advantage of the school's automated degree audit system. This online system provides students a personal copy of their academic record, including work in progress.

Schedule-Building. Schedule-building is the determination of specific courses a student should take in a given semester. Students should refer to the Wichi­sta State University Schedule of Courses and Catalog in consultation with a faculty advisor or staff of the school's advising center to determine a specific course of study. Selection of specific sections and of times for courses is the student's responsibility. The tentative schedule must be approved by an advisor.

Program Planning. Students are encouraged to outline an entire plan of study early in their academic career. This program planning activity is provided by the advising center and includes suggested model programs for each of the major fields of study offered by the school.

Counseling. Students seeking career guidance, personal counseling, or other types of assistance will be directed to the appropriate University office by the staff of the advising center.

Where to Find Advising Assistance
Office of the Dean (100 Clinton Hall). Students should come to the Office of the Dean for special advisement assistance that cannot be resolved at locations described below and to file appeals and waiver requests relative to school and University regulations. The dean's office also will refer students to the appropriate office should the student be unsure as to
where to find assistance.

Undergraduate Academic Advising Center (114 Clinton Hall). The Academic Advising Center is staffed to provide assistance in understanding degree program requirements, planning an entire academic course of study, designing a course schedule for a particular semester, and providing referrals to other University offices for assistance as appropriate.

Student Records Office (106 Clinton Hall). The Student Records Office maintains a complete and up-to-date file for each student admitted to the Barton School of Business.

Academic Honesty

The faculty of the Barton School of Business strongly endorse the statement on academic honesty appearing in the general information section of this Catalog.

Graduation Requirements

Bachelor of Business Administration

Candidates for the Bachelor of Business Administration degree must satisfy the following Barton School of Business requirements:

1. Complete at least 62 hours (63 hours for accounting majors) of course work offered outside the school (ECON 201, 202, 231, and 232 count as courses outside the school). Any course that is cross-listed with a business course is considered to be a business course and does not count as non-business hours. Students may, however, choose to have one upper-division economics course count as a non-business course.

2. Complete the set of core requirements specified for the Bachelor of Business Administration degree, given later in this section.

3. Complete the requirements for a major in the Barton School of Business.

4. Complete at least 50 percent of the total hours required by (2) and (3) above at Wichita State University. (The following core courses are excluded in computing the 50 percent requirement: MATH 111 and 114/214; ECON 201, 202, 231, and 232.)

5. Achieve a grade point average of 2.250 or better on (a) all college work, (b) all work taken at Wichita State, (c) all business and economics courses, (d) all business and economics courses taken at Wichita State, (e) all courses counted toward the student’s major emphasis, and (f) all courses counted toward the student’s major emphasis taken at Wichita State.

6. Complete a minimum of 45 credit hours at the upper division level.

Three levels of requirements must be completed to receive a BBA: (1) University general education and graduation requirements, listed in the Academic Information section of the Catalog, (2) general requirements in the Barton School of Business, and (3) school major requirements. The following sequence of required courses is recommended:

Freshman Year

MATH 111, College Algebra*

MATH 144, Business Calculus

ENGL 101-102, College English I-II*

COMM 111, Public Speaking*

ACCT 260, Introduction to Information Processing Systems for Business

General education electives

*These courses must be completed with a grade of C or better within a student’s first 48 hours.

Sophomore Year

ACCT 210, Financial Accounting

ACCT 220, Managerial Accounting

ECON 201-202, Principles of Macroeconomics and Microeconomics

ECON 231, Introductory Business Statistics

ECON 232, Statistical Software Applications for Business

General education electives

Junior Year

ENTRE 310C, The Entrepreneurial Experience

FIN 340, Finance

IB 333, International Business

MGMT 360, Management and Organizational Behavior

MKT 300, Marketing

Upper-division business law course

Major courses

Senior Year

MIS 495, Management Information Systems for Business

DS 350, Introduction to Production and Operations Management

MGMT 681, Strategic Management

Major courses

Nonbusiness electives

Students graduating from the Barton School will take at least one behavioral science course from the following list: IB 600, MGMT 462, 661, 662, 663, 668; MKT 405; PSY 111; SOC 111.

Students planning to enroll in upper-division business courses (courses numbered 300 to 699) must have completed 60 semester credit hours and met the requirements for advanced standing. Accreditation of the school by AACSB stipulates that students should be classified as juniors to enroll in upper-division courses. Exceptions are made to this requirement for either of the following:

1. Students who have close to 60 hours and have enrolled in the required lower-division (100-200 level) courses may enroll in introductory upper-division courses to complete a full schedule.

2. Students with a cumulative grade point average of 3.250 or above may have the junior standing prerequisite waived with the consent of the instructor of the course and the chairperson of the department in which the course is taken.

The suggested sequence of courses includes classes which are part of the Barton School of Business core requirements. The core courses required for the BBA are as follows:

I. Foundation Knowledge for Business

A. Accounting

   ACCT 210, Financial Accounting*

   ACCT 220, Managerial Accounting*

   ACCT 260, Introduction to Information Processing Systems for Business

B. Behavioral Science

   MGMT 360, Management and Organizational Behavior

C. Economics

   ECON 201-202*, Principles of Macroeconomics and Microeconomics

D. Mathematics and Statistics

   MATH 111, College Algebra*

   MATH 144, Business Calculus*

   MATH 242, Calculus I will be accepted in lieu of MATH 144.*

   ECON 211, Introductory Business Statistics* and ECON 232, Statistical Software Applications for Business

II. Environment of Business—provides an understanding of the perspectives that form the context for business

   B LAW 431, Legal Environment of Business or

   B LAW 635, Law of Commercial Transactions

   B LAW 636, Law of Business Associations

   ENTRE 310C, The Entrepreneurial Experience

   IB 333, International Business

III. Business Functions

   MKT 300, Marketing

   FIN 340, Finance

   DS 350, Introduction to Production and Operations Management

   MIS 495, Management Information Systems for Business

IV. Business Policy

   MGMT 681, Strategic Management

In addition, University graduation requirements include courses designed to help develop written and oral communication skills (ENGL 100 or 101, ENGL 201, and COMM 111). These courses must be completed with a grade of C or better.

*These courses are prerequisites for upper-division courses.

Note: Any faculty member teaching an upper-division course in the Barton School of Business may assume that all students have completed the specific courses listed under Freshman Year and Sophomore Year above.

Major/Minor Areas

Candidates for the BBA degree must satisfy the additional requirements of one of the following curricular majors. All students may avail themselves of the indicated minors. The minimum grade point average...
or a minor field of study shall be the same as the
minimum grade point average required for graduation
with a major in the same field.

School of Accountancy
Two degree programs are offered by the School of
Accountancy—the Master of Accountancy (MAcc)
and the Bachelor of Business Administration with an
accounting major. In addition, a minor in accounting
is available to students who are not accounting majors.

BBA—Accounting Major
Requirements for a major in accounting within the
bachelor of Business Administration degree are as
follows:

<table>
<thead>
<tr>
<th>Course</th>
<th>Hrs.</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACCT 210, Composition: Business, Professional and Technical Writing</td>
<td>3</td>
</tr>
<tr>
<td>ACCT 310, Financial Accounting and Reporting: Assets</td>
<td>3</td>
</tr>
<tr>
<td>ACCT 320, Accounting for Decision Making and Control</td>
<td>3</td>
</tr>
<tr>
<td>ACCT 410, Financial Accounting and Reporting: Equities</td>
<td>3</td>
</tr>
<tr>
<td>ACCT 430, Introduction to Federal Income Tax</td>
<td>3</td>
</tr>
<tr>
<td>ACCT 500, Accounting Information Systems</td>
<td>3</td>
</tr>
<tr>
<td>ACCT 640, Principles of Auditing</td>
<td>3</td>
</tr>
<tr>
<td>Any three of the following courses</td>
<td>9</td>
</tr>
<tr>
<td>ACCT 492, Internship in Accounting</td>
<td></td>
</tr>
<tr>
<td>ACCT 610, Financial Accounting and Reporting: Special Entities and Complex Issues</td>
<td></td>
</tr>
<tr>
<td>ACCT 620, Accounting for Strategic Support and Performance Evaluation</td>
<td></td>
</tr>
<tr>
<td>ACCT 630, Taxation of Business Entities</td>
<td></td>
</tr>
</tbody>
</table>

Credit hours in ACCT 481 cannot be included in the
accounting major.

Accounting Minor
A minor in accounting is available to any student
whose major field or area of emphasis is outside of
accounting. A minor in accounting consists of ACCT
210, 310, 320, 280, and 9 hours of upper-division account-
ing. All accounting course work must be completed
with a GPA of 2.250 or better, and 9 hours of account-
ing course work must be completed at WSU. Credit
hours in ACCT 481 cannot be included in the
accounting minor.

Business Administration Major
Required Courses: Hrs.
ACCT 310, Financial Accounting and Reporting: Assets (3); ACCT 320, Accounting for Decision Making and Control (3); ACCT 410, Financial Accounting and Reporting: Equities (3); ACCT 430, Introduction to Federal Income Tax (3); ACCT 560, Accounting Information Systems (3).

ECON 301, Intermediate Macroeconomics | 3 |
ECON 302, Intermediate Microeconomics | 3 |
ECON 304, Managerial Economics | 3 |
Upper-division electives (at least 9 hrs. in economics, other 6 with advisor’s consent) beyond the college core | 15 |
Credit hours in ECON 481 may not be counted toward the major in economics.

Emphasis in Real Estate
Within the economics major an emphasis in real
estate may be obtained by taking 21 hours beyond the
college core, as follows:

Required Courses—12 hrs.
RE 310, Introduction to Real Estate | 3 |
ECON 301, Intermediate Macroeconomics | 3 |
Upper-division electives (at least 9 hrs. in economics, other 6 with advisor’s consent) beyond the college core | 15 
Credit hours in ECON 481 may not be counted toward the major in economics.

Economics Minor
A minor in economics is available to any student
whose major field or area of emphasis is outside of
economics. A minor consists of a minimum of 15
hours of economics including ECON 201 and 202 and
9 hours of upper-division economics. A minimum
of 9 of 15 must be completed at WSU and a GPA of 2.250 are required. Co-op credits may not be counted toward the minor in economics.

Entrepreneurship Major
Department of Marketing and Entrepreneurship
The entrepreneurship major requires 21 upper-di-
vision hours beyond the business core. Students who
plan to major or minor in entrepreneurship should
contact the Center for Entrepreneurship for special
counseling and scholarship information. The major
requires 9 hours of required courses, 3 hours of a
directed elective, and 9 hours from the list of approved elective courses. Credit will be awarded for ENTRE 403 or 608 as either directed or approved electives.

Required courses Hrs.
ENTRE 420, Developing a Marketing Plan | 3 |
ENTRE 620, Growing and Managing an Entrepreneurial Firm | 3 |
Entrepreneurship Minor
A minor in entrepreneurship is available to any WSU student whose major field or area of emphasis is other than entrepreneurship. The minor consists of 15 hours of entrepreneurship courses including ENTRE 301C and 12 hours of upper-division entrepreneurship courses. The student must take at least 9 hours at WSU and maintain a 2.250 GPA in those courses. Co-op credits may not be counted toward the minor in entrepreneurship.

Finance Major
Department of Finance, Real Estate, and Decision Sciences
The major requires 21 hours beyond the college core. An emphasis in Real Estate may be obtained within the finance major. In addition, the department also offers a finance minor. All finance majors are required to complete ECON 340, Money and Banking.

Required Courses
- FIN 440, Financial Management II
- FIN 660, Cases in Finance

Electives, from the following:
- FIN 620, Investments
- FIN 622, Futures and Options Markets
- FIN 625, International Financial Management
- FIN 650, Financial Modeling
- FIN 631, Fixed Income Securities & Markets
- FIN 632, Bank and Financial Institution Management
- RE 611, Real Estate Finance
- RE 618, Real Estate Investment Analysis

Emphasis in Real Estate
Within the finance major an emphasis in real estate may be obtained by taking 21 hours beyond the college core, as follows:

Required courses
- RE 310, Principles of Real Estate
- RE 619, Urban Land Development
- One upper-division real estate course chosen from:
  - RE 438, Real Estate Law
  - RE 611, Real Estate Finance
  - RE 614, Real Estate Appraisal
  - RE 618, Real Estate Investment Analysis

Electives—3 hours
One upper-division course approved by the entrepreneurship program and/or the Center for Real Estate. Students are strongly encouraged to use internship, co-op, or independent study to satisfy this elective. A maximum of 3 credit hours of co-op may be counted in the entrepreneurship or entrepreneurship-emphasis real estate major.

Human Resource Management Major
Department of Management

Required Courses
- HRM 466, Fundamentals of Human Resource Management
- HRM 661, Labor Relations
- HRM 666, Human Resource Staffing
- HRM 668, Compensation
- HRM 669, Training and Development

Electives, from the following:
- ECON 661, Collective Bargaining
- MGMT 462, Leading and Motivating
- MGMT 464, Communicating Effectively in Organizations
- MGMT 560, Designing Effective Organizations
- MGMT 561, Coaching, Developing, and Mentoring
- MGMT 662, Managing Workplace Diversity
- MGMT 663, Building Effective Work Teams

Other courses may be used as electives with an advisor’s consent, including HRM 481, 491, or 492. A maximum of 3 credit hours of co-op may be used in the major.

International Business Major
Department of Management

Required Courses
- IB 400, International Purchasing
- IB 481, Cooperative Education
- IB 491, International Business Independent Study
- IB 492, International Business Internship
- IB 690, Special Topics in International Business
- MKT 403, Marketing Research
- MKT 632, International Management

Directed electives
Three of the following courses selected in consultation with the student's major advisor:
- ANTHR 303, World Cultures or ANTHR 515
- ANTHR 516
- ANTHR 516, Japan: People and Culture (may be taken as culture/area studies)
- IB 300, International Purchasing
- IB 481, Cooperative Education
- IB 491, International Business Independent Study
- IB 492, International Business Internship
- IB 690, Special Topics in International Business
- MKT 403, Marketing Research
- MKT 403, Consumer Behavior

With major advisor's consent, other relevant upper-division courses in the Barton School of
other academic areas may be substituted. A maximum of 3 credit hours of co-op may be counted in the IB major.

Within the student's total degree program, at least 10 hours are required in a foreign language. An additional 6 hours of culture/area studies related to a geographic area, selected from an approved list with major advisor's consent, also are required. These courses, including Issues and Perspectives courses, e.g., LAS 300, Global Issues, may be included within the General Education Program.

Management Major
Department of Management

Seven courses selected from the following:
Course                   Hrs.
MGMT 430, Business, Government, and Society ...3
MGMT 462, Leading and Motivating                     3
MGMT 464, Communicating Effectively in Organizations                 3
MGMT 660, Designing Effective Organizations ...3
MGMT 661, Coaching, Developing, and Mentoring ..................3
MGMT 662, Managing Workplace Diversity ...3
MGMT 663, Building Effective Work Teams ...3
MGMT 680, Making Effective Decisions ...3
HRM 466, Fundamentals of Human Resource Management ...3
HRM 664, Labor Relations ...3
HRM 666, Human Resource Staffing ...3
IB 600, International Management ...3

Up to 6 credit hours may be substituted from upper-level courses in business administration with advisor's consent. A maximum of 3 credit hours of co-op may be used in the major.

Management Minor

A minor in management consists of 15 hours, including MGMT 360 and 12 hours of upper-division management courses chosen from MGMT 430, 462, 464, 660, 680, 691; IB 333, 600; HRM 466, 664, and 660. Co-op credits may not be counted toward the minor. At least 9 hours must be taken at WSU with at least a 2.250 GPA in these courses.

Management Information Systems Major
Department of Finance, Real Estate, and Decision Sciences

The MIS major consists of the following courses. Note: MIS majors are not required to complete MIS 495 in the business core.
Required Courses       Hrs.
MIS 310, Fundamentals of Programming ...3
MIS 325, Data Comm. and Computer Networks ...3
MIS 450, Database Management Systems ...3
MIS 605, Systems Analysis and Design ...3
MIS 696, Managing the IS Function ...3

Electives, from the following: ........................................9
MIS 315, Intermediate Programming ..............3
MIS 610, Database and Web Programming ........3
MIS 690, Knowledge Management .................3
ACCT 360, Accounting Information Systems ....3
ACCT 660, Technol., Risk Mgmt., Security & Ctrl.....3

Marketing Major
Department of Marketing and Entrepreneurship

Required Courses                  Hrs.
MKT 403, Marketing Research ...3
MKT 405, Consumer Behavior ...3
MKT 609, Marketing Programs ...3

Direct Electives, from the following: ..............6
MKT 404, Retail Management ...3
MKT 407, Marketing for Service and Nonprofit Organizations ...3
MKT 601, International Marketing ...3
MKT 604, Distribution Management ...3
MKT 606, New Product Marketing ...3
MKT 607, Promotion Management ...3
MKT 608, Selling and Sales Force Management ...3

Approved Electives, selected from approved list of courses; see academic advisor for list: ........6

Emphasis in Real Estate

Within the marketing major an emphasis in real estate may be obtained by taking 21 hours beyond the college core, as follows:
Real estate core — 9 hours
MKT 407, Marketing for Service and Nonprofit Organizations ...3
MKT 608, Selling and Sales Force Management ...3

Real Estate Emphasis

An emphasis in real estate is available to students majoring in economics, entrepreneurship, finance, or marketing. See these sections for details.

Course Descriptions

Business courses numbered 100 to 299 are designed primarily for freshmen and sophomores, but students from other classes may be admitted for lower-division credit. Graduate students may not take these courses for graduate credit.

Business courses numbered 300 to 499 are available only to juniors and seniors. Graduate students may not take these courses for graduate credit.

Business courses numbered 500 to 699 are available only to juniors and seniors, but graduate students may also receive graduate credit for these courses.

Business courses numbered 700 to 799 are structured primarily for graduate students, but undergraduate, upper-division students may be admitted if they meet course prerequisites.

Courses numbered 800 to 899 are designed for graduate students only, and students may not be admitted to these courses unless they have been admitted to the Graduate School. (See the Academic Information section of the Catalog for special conditions under which seniors may be admitted to graduate courses.)

Accounting (ACCT)

School of Accountancy

Lower-Division Courses

ACCT 190, Selected Topics (1-3). Repeatable with departmental consent.

ACCT 210, Financial Accounting (3). The study of accounting as a means of communicating financial information about the activities of business enterprises. Emphasizes concepts and principles underlying the measurement of income and financial position, and how this information may be used to evaluate the progress of a firm.

ACCT 220, Managerial Accounting (3). The study of accounting in terms of management's information requirements. Emphasizes the use of accounting information to assist management in planning, analyzing, and implementing business decisions and activities. Prerequisite: ACCT 210.

ACCT 250, Introduction to Information Processing Systems for Business (3). Focuses on the evolving dimensions of hardware, software, data communications and computer networking, and the Internet. Using business situations as examples, students learn about and gain experience with word processing, spreadsheets, data bases, charting, presentation, e-mail, e-mail attachments, file transfer, file compression, and search engines.
Upper-Division Courses


ACCT 320. Accounting for Decision Making and Control (3). The use of accounting information to assist management in planning, analyzing, and implementing processes for decision making and control. Focus is operational control in contemporary business contexts. Prerequisites: ACCT 220, junior standing, advanced standing.

ACCT 380. Special Group Studies in Business (1-3). Repeatable for credit with School of Accountancy consent. Prerequisites: junior standing, advanced standing.


ACCT 430. Introduction to Federal Income Tax (3). An overview of the federal tax law and those laws specifically applicable to individuals and sole proprietors. Also introduces tax research techniques. Prerequisites: ACCT 210, ACCT 310 or departmental approval, junior standing, advanced standing.

ACCT 481. Cooperative Education (1-3). An academic program that expands a student's learning experiences through paid employment in a supervised educational work setting related to the student's major field of study or career focus. Offered Cr/NCr only. Prerequisites: junior standing and 2,250 GPA.

ACCT 491. Independent Study in Accounting (1-3). Individual study for Cr/NCr only. Prerequisites: 2,750 GPA in accounting, junior standing, advanced standing, and School of Accountancy consent.

ACCT 492. Internship in Accounting (3). Offered Cr/NCr only. Prerequisites: 2,750 GPA in accounting, junior standing, advanced standing, and School of Accountancy consent.

Courses for Graduate/Undergraduate Credit

ACCT 560. Accounting Information Systems (3). A study of the content, design, and controls of accounting systems, emphasizing the use of computers for processing financial data. Prerequisites: junior standing, advanced standing.

ACCT 610. Financial Accounting and Reporting: Special Entities and Complex Issues (3). Examines accounting concepts and techniques related to consolidated statements, governmental and not-for-profit entities, and partnerships.

Includes accounting for foreign currency, hedges, financial instruments, and emerging issues in financial accounting and reporting. Prerequisites: ACCT 410, senior standing, advanced standing.

ACCT 620. Accounting for Strategic Support and Performance Evaluation (3). The use of accounting information to assist management in developing and identifying superior strategies to produce and sustain comparative and/or competitive advantages. Focuses on goal-congruent strategies and incentives. Prerequisites: ACCT 320, junior standing, advanced standing.

ACCT 630. Taxation of Business Entities (3). Studies the federal tax law as it applies to corporations, partnerships, S corporations, and tax-exempt entities. Examines the effect of taxation on business decisions. Prerequisites: ACCT 430, junior standing, advanced standing.

ACCT 640. Principles of Auditing (3). A study of the auditor's attest function, emphasizing auditing standards and procedures, independence, legal responsibilities, codes of ethical conduct, and evaluation of accounting systems and internal control. Prerequisites: ACCT 410 and 560, senior standing, advanced standing.


ACCT 690. Seminar in Selected Topics (1-3). Repeatable for credit with School of Accountancy consent. Prerequisite: junior standing, advanced standing.

ACCT 777. Review for Professional Examinations (1-4). Prepares students for professional certification examinations in accounting, including the CPA, CMA, and CIA examinations. Enrollments govern whether course is offered. Graded S/U and may be repeated for credit. Registration for up to 6 semester hours is permitted. Credit for this course does not count for degree credit in the School of Accountancy or the Barton School of Business. Prerequisite: permission of the School of Accountancy. Please see the Graduate Catalog for courses numbered 800 and above.

Business Administration—General (BA)

Lower-Division Courses

BA 190. Selected Topics (1-3). Repeatable with departmental consent.

BA 190A. The Right Start: Becoming a Master Student (3). Specifically for first-year business majors. Helps students become master students. Provides an extended exposure to the mission, strategies, and programs of the Barton School of Business. Helps students prepare for success in studying, working with other students, interacting with faculty, and planning their career. Students learn current business practices and interact with representatives of the business community. Non-business students may enroll on a space-available basis. Counts as a non-business elective for any student enrolled in the Barton School of Business.

BA 190B. Career Network Experience (1). A career mentoring program where WSU business students are paired with a WSU alum working in business. By participating in the program, students are provided an opportunity to gain insight into a career through the eyes of a community professional. A weekly seminar, taught by WSU staff, provides an in-depth focus on marketing yourself to an employer. Topics include resume development, networking skills, interviewing tips, leadership in the workplace, and corporate culture. Counts as a non-business elective for any student enrolled in the Barton School of Business. Prerequisites: instructor's permission, a 2.5 GPA, at least 12 hours completed.

BA 251. Cooperative Education I (1). An academic program that integrates academic theory with professional experience through paid employment in a supervised work setting related to the student's career focus. Course does not satisfy elective requirements for any major or minor offered by the Barton School. May be repeated, but limited to a total of 3 credits. Offered Cr/NCr only. Prerequisites: sophomore standing and 2,250 GPA.

BA 290. Selected Topics (1-3). Repeatable with departmental consent.

Upper-Division Course

BA 490. Selected Topics (1-3). Repeatable with departmental consent.

Business Law (B LAW)

Department of Finance, Real Estate, and Decision Sciences

Lower-Division Courses

B LAW 130. Introduction to Law (3). A basic introduction to law. Considers the nature and functions of law, the structure of the American legal system, and legal processes and procedures. Also surveys the major areas of substantive law. Open to students with a general interest in law.

B LAW 190. Selected Topics (1-3). Repeatable with departmental consent.

Upper-Division Courses

Decision Sciences (DS)

Department of Finance, Real Estate, and Decision Sciences

Lower-Division Course

DS 190. Selected Topics (1-15). Repeatable with departmental consent.

Upper-Division Courses

DS 350. Introduction to Production and Operations Management (3). An overview of the concepts, tools, and techniques used in making managerial decisions related to the production or operations function of an organization. Topics include facility location and layout, forecasting, operations scheduling, quality control, inventory planning, and control work design and measurement. Prerequisite: junior standing, advanced standing.

DS 390. Special Group Studies in Decision Sciences (1-3). Repeatable with departmental consent. Prerequisite: advanced standing.

DS 400. International Purchasing (3). Cross-listed as B 400. Designed to expose the student to a wide range of business issues dealing with international purchasing and global trade. As these business issues are identified, various plans and strategies will be developed and applied. Topics covered include an overview of purchasing principles and objectives, global sourcing strategies, identifying sources, negotiations, counter-trade currency strategies, managing cultural differences, legal aspects and much more. Prerequisite: junior standing, advanced standing.

DS 481. Cooperative Education (1-3). An academic program that expands a student's learning experiences through paid employment in a supervised educational work setting related to the student's major field of study or career focus. Offered Cr/NC only. Prerequisites: junior standing and 2.250 GPA.

B LAW 491. Independent Study (1-5). Offered Cr/NC only. Closed to graduate credit. Prerequisites: junior standing, advanced standing, and 2.750 GPA in business law, and departmental consent.

Courses for Graduate/Undergraduate Credit


B LAW 636. Law of Business Associations (3). Law of agency, partnerships, and corporations. Considers the organizational and relational aspects of both small, closely held businesses and large corporate enterprises. Prerequisites: junior standing, advanced standing.

B LAW 690. Seminar in Selected Topics (1-5). Repeatable with departmental consent. Prerequisites: junior standing, advanced standing.

Please see the Graduate Catalog for courses numbered 800 and above.

Economics (ECON)

Department of Economics

Courses in the economics department are offered in the following subject areas. Since course descriptions are listed in numerical sequence, the following summary is presented to assist in locating courses by subject area.

Economic principles and theory—ECON 201, 202, 203, 204, 302, 304, 603, 605, 800, 801, 803, 804

Industrial organization and regulated industries—ECON 614, 615, 617

History and comparative systems—ECON 622, 625, 627

Statistics and econometrics—ECON 231, 232, 702, 731, 803, 851

Monetary and financial economics—money and banking—ECON 340, 470, 480, 847

Public finance—ECON 765, 865

Labor and manpower economics—ECON 660, 661, 662, 663, 861

Economic growth and development; international economics—ECON 671, 672, 674, 870

Urban, environmental and regional economics—ECON 680

Directed study; thesis—ECON 491, 692, 750, 891, 892, 896.

Lower-Division Courses


ECON 202. Principles of Microeconomics (3). General education introductory course. An introduction to the study of markets and the behavior of household and business units. Special attention is paid to the role of competition in determining market performance. Other topics include contemporary public issues, such as government regulation, international trade and economics of the environment. Prerequisite: ECON 201.

ECON 231. Introductory Business Statistics (3). An introduction to statistical inference, estimation, and hypothesis testing. Includes summary measures, probability, random variables and their distributions, sampling distributions, elements of Bayesian decision theory, linear regression and correlation, and time series analysis. Uses commercial statistical packages to perform statistical data analysis. Prerequisites: MATH 111.

ECON 232. Statistical Software Applications for Business (1). A computer lab focusing on applying statistical software to business analysis and decision-making. Prerequisites: MATH 111, ACCT 201.

ECON 250. Entrepreneurship and Personal Enterprise (3). Demonstrates that the ascribed attributes and personal qualities that traditionally have characterized the entrepreneur (initiative, investment, innovation, commitment, and risk-taking) can be learned by anyone who seeks personal intellectual fulfillment and/or business success. Knowledge of entrepreneurial principles and processes are invaluable in any academic discipline as well as for those in quest of desired career goals.

ECON 280. Economics of Social Issues (3). Analyzes current social and public policy issues using the fundamental tools of economic theory. Issues covered depend partly on current events, but includes poverty, environmental issues,
government tax and spending policies, international trade, and economic stability and growth. No prior study of economics is necessary. Prerequisites: MATH 111, COMM 111, and ENGL 102.

Upper-Division Courses

ECON 301. Intermediate Macroeconomics (3). Introduces the concepts of economic growth, aggregate demand, and aggregate supply. After developing theoretical foundations for these, policy applications are discussed, including such policy issues as unemployment, inflation, government and international trade deficits, and interest rates. Prerequisite: junior standing.

ECON 302. Intermediate Microeconomics (3). Theory of resource allocation by means of prices and markets. Economic choice, production, cost, supply, demand, and market structure are discussed, as well as efficiency conditions in consumption, production, distribution, and exchange. Prerequisites: junior standing.

ECON 304. Managerial Economics (3). Applies concepts from microeconomic theory to problems in business management and decision-making. Includes demand analysis, pricing, production costs, effects of market structure on business decision-making, and decision-making with risk. Prerequisite: junior standing.

ECON 310. Economics of E-Business (3). Covers the fundamental economic principles explaining the growth of e-business and the Internet: transaction costs, costs of producing and distributing information, network externalities, lock-in, and information pricing. Examines current state and practice of e-business and the effects of e-business and the Internet on society outside the business realm. Prerequisite: junior standing.

ECON 340. Money and Banking (3). A study of the financial sector of the U.S. economy, emphasizing the role of money in determining inflation, interest rates, and the level of economic activity. Includes the commercial banking and Federal Reserve systems, credit markets, interest rate theory, and monetary policy. Prerequisite: junior standing.

ECON 481. Cooperative Education (1-2). An academic program that expands a student's learning experiences through paid employment in a supervised educational work setting related to the student's major field of study or career focus. Offered Cr/NCr only. Prerequisites: junior standing and 2.250 GPA.

ECON 491. Directed Study (1-3). Individual study of various aspects and problems of economics. Repeatable for credit. Cr/NCr only. Prerequisites: junior standing, departmental consent, and 2.750 GPA in economics.

Courses for Graduate/Undergraduate Credit

ECON 665. History of Economic Thought (3). A critical analysis of economic thought, the factors that influence this thought and its impact upon the social and economic development of the modern world. Prerequisites: junior standing.

ECON 661. Economics of Sports (3). An inquiry into the economic aspects of professional and intercollegiate sports. Includes industrial organization of sports, public finance of sports, and the labor economics of sports, as well as the unique competitive nature of the sports enterprise. Not applicable toward the MA in economics. Prerequisite: junior standing.

ECON 664. Industrial Economics and Antitrust Policy (3). Examines the behavior of firms within industries emphasizing antitrust policy. Includes pricing behavior, distribution policies, entry deterrence, advertising, and mergers. Prerequisite: junior standing.

ECON 665. Economics of Transportation (3). A study of how businesses can effectively use transportation both nationally and internationally. Includes the physical and economic characteristics of transportation modes, basic concepts of logistics, and problems and policies related to transportation. Prerequisite: junior standing.

ECON 667. Economics of Regulation (3). A study of the theory and practice of regulation. Includes both the traditional regulation of public utilities and communications and the newer forms of regulation, such as safety and environmental regulations. Prerequisite: junior standing.

ECON 668. Urban Economics (3). Cross-listed as PADM 668. A survey of the economic structure and problems of urban areas on both the microeconomic and macroeconomic levels. Stresses the application of regional economic analysis in the study of urban areas as economic regions. Prerequisite: junior standing.

ECON 674. Mathematical Methods in Economics (3). Introduces mathematical tools that are especially useful in economics, econometrics, and finance. Includes a review of differential and integral calculus, an introduction to matrix algebra, and various constrained optimization and economic relationships and the effects of collective bargaining on wages, employment, and prices. Prerequisite: junior standing.

ECON 677. Economic History of the United States (3). Cross-listed as HIST 614. An analysis of the development of economic institutions; the rise of capitalism and its influence on overseas expansion, technology, precious metals, politics, and war; changes in economic ideologies; and cultural effects of economic change. Prerequisite: junior standing.

ECON 680. Labor Economics (3). An introduction to labor economics surveying both theoretical and empirical research in this field. Includes labor markets, wage determination, and human capital theory. Prerequisite: junior standing.

ECON 681. History of Economic Thought (3). A critical analysis of economic thought, the factors that influence this which wages are determined under various institutional relationships and the effects of collective bargaining on wages, employment, and prices. Prerequisite: junior standing.

ECON 682. Work and Pay (3). Investigation of the economic aspects of work and pay emphasizing the nature of work under capitalism and the manner in which wages are determined. Covers quality of work life, labor force participation and mobility, labor market discrimination, and various wage theories. Prerequisite: junior standing.

ECON 685. Economic Insecurity (3). Cross-listed as GERON 685. Personal economic insecurity, such as unemployment, old age, health care, disability, and erratic economic fluctuations. Includes costs and benefits of government action to aid in meeting such insecurities. Prerequisite: junior standing.

ECON 691. Cooperative Education (1-2). An academic program that expands a student's learning experiences through paid employment in a supervised educational work setting related to the student's major field of study or career focus. Offered Cr/NCr only. Prerequisites: junior standing and 2.250 GPA.

ECON 491. Directed Study (1-3). Individual study of various aspects and problems of economics. Repeatable for credit. Cr/NCr only. Prerequisites: junior standing, departmental consent, and 2.750 GPA in economics.
ic modeling techniques. Emphasizes economic applications and modeling. Prerequisites: Junior standing.

**ECON 731. Applied Econometrics I (3).** A study of regression techniques through business, finance, and economics examples. Reviews the fundamentals of statistics and covers practical model building, data collection, use of statistical software packages, interpretation of regression results, and various diagnostic tests. Prerequisites: Junior standing.

**ECON 740. Monetary Problems and Policy (3).** An examination of historical and contemporary monetary issues in the context of the global economy. Prerequisites: ECON 340, junior standing.

**ECON 750. Workshop in Economics (1-3).** Prerequisite: Junior standing.

**ECON 765. Public Sector Economics (3).** Cross-listed as P. Adm. 765. An analysis of fiscal institutions and decision making in the public sector of the American economy, budget planning and execution, taxation, debt, and fiscal policy. Prerequisites: Junior standing or instructor consent.

Please see the Graduate Catalog for courses numbered 800 and above.

### Entrepreneurship (ENTRE)

#### Department of Marketing and Entrepreneurship

**ENTRE 160. Introduction to Entrepreneurship (3).** An introductory course for non-business majors to familiarize the student with the world of small business, including the analysis of personal strengths and weaknesses as they relate to launching an entrepreneurial career. Gives considerable attention to elementary concepts of planning, financing, starting, and managing a new business.

**ENTRE 250. Entrepreneurship and Personal Enterprise (3).** Demonstrates that the ascribed attributes and personal qualities traditionally characterizing the entrepreneur (initiative, investment, innovation, commitment, and risk-taking) can be learned by anyone who seeks personal intellectual fulfillment and/or business success. Knowledge of entrepreneurial principles and processes are invaluable in any academic discipline as well as for those in quest of desired career goals.

#### Upper-Division Courses

**ENTRE 301C. The Entrepreneurial Experience (3).** Overview of the study of entrepreneurship, including its economic foundations, the principles of venture creation, financial sources of capital, and strategy/business plan creation. Explores the entrepreneurial mentality and philosophy toward risk-taking, innovation, and creativity. Integrates a strong oral and written communication component throughout course. Prerequisites: Junior standing or instructor consent, advanced standing.

**ENTRE 403. Marketing Research (3).** Cross-listed as MKT 403. A study of the design and implementation of research procedures that support systematic and objective decision-making for marketing planning and strategy development. Prerequisites: ECON 231 and 232, MKT 300, junior standing, advanced standing.

**ENTRE 420. Developing a Marketing Plan (3).** Cross-listed as MKT 420. Emphasizes the analysis and tools required in the development of a marketing plan for a new or existing organization. With extensive use of traditional and web-based research, students develop a marketing plan that positions the firm to achieve a competitive advantage in the marketplace. Prerequisites: ENTRE 310C, MKT 300, or instructor’s consent, junior standing, advanced standing.

**ENTRE 481. Cooperative Education (1-3).** An academic program that expands a student’s learning experiences through paid employment in a supervised educational work setting related to the student’s major field of study or career focus. Offered Cr/NC only. Prerequisites: Junior standing and 2,250 GPA.

**ENTRE 491. Independent Study in Entrepreneurship (1-5).** Offered Cr/NC only. Closely to graduate credit. Prerequisites: Junior standing, advanced standing, 2,750 GPA in entrepreneurship courses, and departmental consent.

**ENTRE 492. Internship in Entrepreneurship (1-3).** Offered Cr/NC only. Prerequisites: Junior standing, advanced standing, 2,750 GPA in entrepreneurship courses, and departmental consent.

#### Courses for Graduate/Undergraduate Credit

**ENTRE 606. New Product Marketing (3).** Cross-listed as MKT 606. Addresses identifying, evaluating, developing, and commercializing new products within both smaller and larger firms. Explores the role of the product-brand manager, a person who often acts as an internal entrepreneur. Prerequisites: MKT 300, junior standing, advanced standing.

**ENTRE 608. Selling and Sales Force Management (3).** Cross-listed as MKT 608. An analysis of current behavioral concepts of personal selling and the problems and policies involved in managing a sales force. Prerequisites: MKT 300, junior standing, advanced standing.

**ENTRE 610. Short-Term Financial Management (3).** Cross-listed as FIN 610. An introduction to short-term financial management. Includes bank balances, compensation and payment systems, cash management systems, corporate liquidity, receivables and payables management, inventories, and international short-term finance. Prerequisites: FIN 340, junior standing, advanced standing.

**ENTRE 620. Growing and Managing an Entrepreneurial Firm (3).** Focuses on the organization, operation, marketing, and financial management of an on-going entrepreneurial firm. Emphasizes the strategic management of growth associated with a rapidly changing business, as distinguished from “small business management,” which could include small enterprise units that are static. Teaches the practical aspects of managing a growing business on a day-to-day basis. Practical application to “entrepreneurship,” such as growing a division or department within a larger organization. Prerequisites: ENTRE 310C and junior standing or instructor’s consent, advanced standing.

**ENTRE 668. Developing a Successful Business Plan (3).** Emphasizes the development of a comprehensive business plan which incorporates financial and organizational principles associated with entrepreneurial finance including financial structuring of the firm, pro formas development of financial statements and the capitalization of the firm. Explains and illustrates strategies for exiting and harvesting the business. Prerequisites: ENTRE 420, senior standing, or instructor’s consent, advanced standing.

**ENTRE 690. Special Topics in Entrepreneurship (3).** Advanced course with in-depth study of emerging topics in entrepreneurship. Repeatable with instructor consent. Prerequisites: ENTRE 310C, junior standing or instructor’s consent, advanced standing.

**ENTRE 750. Workshop in Entrepreneurship (1-4).** Prerequisite: Junior standing.

Please see the Graduate Catalog for courses numbered 800 and above.

### Executive Master of Business Administration (EMBA)

#### Graduate Studies in Business

Please see the Graduate Catalog for EMBA courses.

### Finance (FIN)

**Department of Finance, Real Estate, and Decision Sciences**

#### Lower-Division Courses

**FIN 140. Personal Finance (3).** Management of the cash flows experienced by individuals and families. Analysis of alternative strategies to meet individual financial goals through various investment media emphasizing risks and returns. Explores the student to a set of tools that can be applied in personal financial management to provide a flexible and relevant framework for future decision making.

#### Upper-Division Courses

**FIN 340. Financial Management I (3).** A study of corporate organization, types of securities, and types of financial institutions. Includes analysis of risk and rates of return and long-term investment decisions. Prerequisites: ACCT 210, junior standing, advanced standing.

**FIN 390. Special Group Studies in Finance (1-3).** Repeatable with departmental consent. Prerequisites: Junior standing, advanced standing.
FIN 440. Financial Management II (3). A study of long-term financing decisions and financial planning. Also includes working capital management, mergers and acquisitions, and international financial management. Prerequisites: FIN 340, junior standing, advanced standing.

FIN 481. Cooperative Education (1-3). An academic program that expands a student’s learning experiences through paid employment in a supervised educational work setting related to the student’s major field of study or career focus. Offered Cr/NC only. Prerequisites: junior standing, advanced standing, and 2.250 GPA.

FIN 491. Independent Study (1-3). Offered Cr/NC only. Closed to graduate credit. Prerequisites: junior standing, advanced standing, and 2.750 GPA in finance.

FIN 492. Internship in Finance (1-3). Offered Cr/NC only. Prerequisites: junior standing, advanced standing, and 2.750 GPA in finance, and departmental consent.

Courses for Graduate/Undergraduate Credit

FIN 611. Real Estate Finance (3). Cross-listed as RE 611. Real estate financing instruments, institutions, traditional and creative financing techniques. Risk analysis, mortgage financing and underwriting, primary and secondary mortgage markets. Prerequisites: FIN 340, junior standing, advanced standing.

FIN 618. Real Estate Investment Analysis (3). Cross-listed as RE 618. Equity investor decision criteria, institutional and ownership entity investment constraints, financial leverage opportunities, cash flow analysis, and creative income tax strategies. Prerequisites: FIN 340, junior standing, advanced standing.


FIN 622. Futures and Options Markets (3). Presents an overview of the futures and options markets. Discusses basic theoretical concepts as well as the practical issues of hedging and speculating in these markets. Prerequisites: FIN 340, junior standing, advanced standing.

FIN 625. International Financial Management (3). Cross-listed as ECON 674 and IB 625. A study of the international financial and monetary system, emphasizing currency markets. Also examines market instruments and techniques, including synthetic and derivative securities and their application to management of currency risk in international trade and finance. Prerequisites: FIN 340, junior standing, advanced standing.

FIN 631. Money and Capital Markets (3). A study of domestic and international financial markets, instruments, and institutions and the determinants of the general level and structure of interest rates and security prices. Also covers management of interest rates and portfolio risk using a variety of techniques. Prerequisites: FIN 340, junior standing, advanced standing.

FIN 632. Bank and Financial Institution Management (3). Presents and analyzes asset and liability management by banks and financial institutions. Also covers financial institution structure, management, regulation, and operations. Covers risk management topics in detail. Prerequisites: FIN 340, junior standing, advanced standing.

FIN 650. Financial Modeling (3). Provides students experience in solving a variety of financial problems using a modern computer spreadsheet program. Assignments, covering topics from both corporate finance and investments, closely simulate the types of projects faced by financial managers and practitioners. Prerequisites: FIN 440, junior standing, advanced standing.

FIN 660. Cases in Finance (3). An exploration of the problems and operations for which the financial officer is responsible, emphasizing controversial aspects of financial analysis. This is the capstone course in the finance major and should be taken at the end of a finance program. Prerequisites: FIN 340, 440, junior standing, advanced standing.

FIN 690. Seminar in Selected Topics (1-5). Repeatable with departmental consent. Prerequisites: FIN 340, junior standing, advanced standing.

FIN 750. Workshop in Finance (1-4). Prerequisites: FIN 340 and junior standing.

Please see the Graduate Catalog for courses numbered 830 and above.

Human Resource Management (HRM) Department of Management

Lower-Division Course

HRM 190. Selected Topics (1-3). Repeatable with departmental consent.

Upper-Division Courses

HRM 390. Special Group Studies in Business (1-3). Repeatable with departmental consent. Prerequisite: junior standing, advanced standing.

HRM 466. Fundamentals of Human Resource Management (3). An analysis of the functions of human resource management, including human resource planning, recruiting, selection, appraisal of performance, training, compensation systems, employee/labor relations, and workplace health, safety, and security. Ethical issues in these functions are included. Covers relevant economic, regulatory, and global influences on human resource management. Prerequisites: MGMT 360, junior standing, advanced standing.

HRM 481. Cooperative Education (1-3). An academic program that expands a student’s learning experiences through paid employment in a supervised educational work setting related to the student’s major field of study or career focus. Offered Cr/NC only. Prerequisites: junior standing, advanced standing, and 2.250 GPA.

HRM 491. Independent Study (1-3). Offered Cr/NC only. Closed to graduate credit. Prerequisites: junior standing, advanced standing, and 2.750 GPA in HRM courses.

HRM 492. Internship in Personnel (1-3). Offered Cr/NC only. Prerequisites: junior standing, advanced standing, 2.750 grade point average in HRM courses and departmental consent.

Courses for Graduate/Undergraduate Credit

HRM 664. Labor Relations (3). Presents the philosophy underlying labor legislation and the function of collective bargaining in labor-management relationships. Prerequisite: HRM 466, junior standing, advanced standing.

HRM 665. Human Resource Staffing (3). Analysis of the phases of the selection process as implemented in private and public sector organizations. Includes an analysis of the impact of federal and state anti-discrimination legislation on selection practices as well as human resource planning, recruiting, job analysis, and selection techniques, including testing and interviewing. Validation of selection techniques is covered. Prerequisites: HRM 466, junior standing, advanced standing.

HRM 668. Compensation (3). Approaches to compensations processes in organizations. Discusses job evaluation techniques, wage level and wage structure determination, individual performance analysis, individual wage rate decisions, incentive plans, and benefits. Considers the legal constraints on compensation practices. Prerequisites: HRM 466, junior standing, advanced standing.

HRM 669. Training and Development (3). Analyzes the training and development function as applied in private and public sector organizations. Considers the role of training and development in today’s business environment needs assessment, learning objectives, learning instructional methods and techniques, and evaluation of training effectiveness. Prerequisites: HRM 466, junior standing, advanced standing.

HRM 690. Seminar in Selected Topics (1-5). Repeatable with departmental consent. Prerequisite: HRM 466 or instructor’s consent; junior standing, advanced standing.

HRM 750. Workshop in Human Resources (1-4). Prerequisite: junior standing.

Please see the Graduate Catalog for courses numbered 830 and above.
International Business (IB)

Department of Management

Upper-Division Courses

IB 313. International Business (3). General education issues and perspectives course. A comprehensive overview of the multifaceted issues in international business and globalization that impact all functional areas of business. Examines contemporary issues, perspectives, and influences on American business, economy, government, labor, society, technology, public policy, and competitiveness. Reviews international trade theories, foreign exchange, monetary systems, balance of payments, trade policies, trade agreements, global trading system, and foreign investment, including cultural diversity, human rights, ethics, and social responsibility issues. Examines implications for small and large businesses, including case studies from Wichita firms engaged in international business. Prerequisite: junior standing recommended.

IB 400. International Purchasing (3). Cross-listed as DS 400. Designed to expose the student to a wide range of business issues dealing with international purchasing and global trade. As these business issues are identified, various plans and strategies will be developed and applied. Topics covered include an overview of purchasing principles and objectives, global sourcing strategies, identifying sources, negotiations, counter-trade currency strategies, managing cultural differences, legal aspects and much more. Prerequisites: junior standing, advanced standing.

IB 481. Cooperative Education (1-3). An academic program that expands a student's learning experiences through paid employment in a supervised educational work setting related to the student's major field of study or career focus. Offered Cr/Nc only. Prerequisites: junior standing, advanced standing, and 2.250 GPA.

IB 491. International Business Independent Study (1-5). Offered Cr/Nc only. Prerequisites: junior standing, advanced standing, and 2.750 GPA.

IB 492. International Business Internship (1-3). Offered Cr/Nc only. Prerequisites: junior standing, advanced standing, and 2.750 GPA.

Courses for Graduate/Undergraduate Credit

IB 561. International Economics and Business (3). Cross-listed as ECON 672. A survey of the economic foundations of international trade and investment. Studies international trade, trade policy, and policy (the international economy), then explores the operations of the multinational firm within that environment. Prerequisites: junior standing, advanced standing.

IB 600. International Management (3). Studies management concepts and practices applicable to business operations in an international setting. Examines a wide range of problems associated with business operations across national boundaries. Discusses cultural differences, language barriers, nationalization, protectionism, technology transfer, and trade policies. Prerequisites: IB 300, junior standing, advanced standing.

IB 601. International Marketing (3). Cross-listed as MKT 601. Problems and procedures of marketing in foreign countries. Includes the effects of foreign cultures and marketing systems on the design of marketing programs. Prerequisites: MKT 301, junior standing, advanced standing.

IB 625. International Financial Management (3). Cross-listed as ECON 674 and FIN 625. A study of the international financial and monetary system, emphasizing currency markets. Also examines market instruments and techniques, including synthetic and derivative securities and their application to management of currency risk in international trade and finance. Prerequisites: FIN 300, junior standing, advanced standing.

IB 690. Special Topics in International Business (3). Covers emerging topics within the field of international business. Prerequisites: completion of or concurrent enrollment in all required IB courses, junior standing, advanced standing.

Please see the Graduate Catalog for courses numbered 800 and above.

Management (MGMT)

Department of Management

Lower-Division Courses

MGMT 190. Selected Topics (1-3). Repeatable with departmental consent.

Upper-Division Courses

MGMT 360. Management and Organizational Behavior (3). An overview of concepts, theories, and practices that apply to the management of work organizations. Includes organizational goals, corporate strategy, structure, decision making, leadership, motivation, communication, group dynamics, organizational change, and the international dimension of business. Prerequisites: junior standing, advanced standing.

MGMT 362. Managing People in Organizations (3). Studies why individuals behave the way they do in organizations. Discusses concepts such as personality, motivation, group dynamics, conflict, leadership, and organizational dynamics, emphasizing developing skills to manage behavior for maximum organizational effectiveness. Prerequisites: junior standing, advanced standing.

MGMT 390. Special Group Studies in Management (1-3). Repeatable with departmental consent. Prerequisite: advanced standing.


MGMT 462. Leading and Motivating (3). A study of theories of human motivation and adaptation of these theories to programs in organizations. Examines concepts of authority and delegation and analyzes leadership styles. Prerequisites: MGMT 360, junior standing, advanced standing.

MGMT 464. Communicating Effectively in Organizations (3). An examination of the design of organizational communication systems. Includes an introduction to communication models and the analysis of the interpersonal communication process. Prerequisites: MGMT 360, junior standing, advanced standing.

MGMT 481. Cooperative Education (1-3). An academic program that expands a student's learning experiences through paid employment in a supervised educational work setting related to the student's major field of study or career focus. Offered Cr/Nc only. Prerequisites: junior standing, advanced standing, and 2.250 GPA.

MGMT 491. Independent Study (1-5). Offered Cr/Nc only. Closed to graduate credit. Prerequisites: junior standing, advanced standing, and 2.750 GPA in management.

MGMT 492. Internship in Management (1-3). Offered Cr/Nc only. Prerequisites: junior standing, advanced standing, 2.750 GPA in management, and departmental consent.

Courses for Graduate/Undergraduate Credit

MGMT 560. Designing Effective Organizations (3). Studies how work and workers can be structured to best accomplish the goals of an organization. Explores the interplay of design, technology, strategy, and environment, and discusses frameworks that promote growth, market responsiveness, innovation, and global competitiveness. Emphasizes skills necessary for managing change for maximum effectiveness of individuals, work groups, and the organization as a whole. Prerequisites: MGMT 360, junior standing, advanced standing.

MGMT 661. Coaching, Developing, and Mentoring (3). Managers and leaders of all kinds are judged not on what they do but upon how well their subordinates perform. Course develops positive, supportive management skills for helping individuals and groups achieve their potential. Covers the importance of identifying and hiring superior performers, orienting them to the group, coaching and developing subordinates to their fullest, maintaining motivation at high levels, and merging individuals into a cohesive whole.
sive group. Prerequisites: MGMT 360, junior standing, advanced standing.

MGMT 662. Managing Workplace Diversity (3). Modern organizations face the challenge of managing employees with diverse backgrounds and talents to provide services and products to diverse customers. The course examines work force diversity from the perspective of maximizing its benefits to group and organizational effectiveness, including developing skills to facilitate the constructive resolution of conflict, encouraging cooperation and teamwork, and enhancing identification with the work unit. Prerequisites: MGMT 360, junior standing, advanced standing.

MGMT 663. Building Effective Work Teams (3). Significant changes in the business environment have motivated widespread support for the use of teams to accomplish work-related tasks. The course promotes an understanding of the organizational context of a team through an analysis of how teams form and group processes that enhance goal accomplishment. Emphasizes skills necessary to manage an organization's culture, improve group performance, and increase collaboration among team members. Prerequisites: MGMT 360, junior standing, advanced standing.

MGMT 680. Making Effective Decisions (3). A study of the theories of decision-making with attention to the factors of creativity, the quest for subjective certainty, rationality, cognitive inhibition, problem identification, evaluation of alternatives, applications of qualitative methods to decision processes, and decision implementation. Prerequisites: MGMT 360, junior standing, advanced standing.

MGMT 681. Strategic Management (3). An analysis of business problems from a strategy and management perspective. A capstone course which integrates the functional areas of business, including management, finance, accounting, and production. Discusses both domestic and international policy issues, large and small firms, and various sources of competitive advantage. Prerequisites: DS 350, FIN 340, MKT 300, MGMT 360, senior standing, advanced standing.

MGMT 690. Seminar in Selected Topics (1-3). Repeatable with departmental consent. Prerequisites: junior standing, advanced standing.

MGMT 750. Workshop in Management (1-4). Prerequisite: junior standing.

Please see the Graduate Catalog for courses numbered 800 and above.

Management Information Systems (MIS)
Department of Finance, Real Estate, and Decision Sciences

Lower-Division Courses

MIS 190. Selected Topics in MIS (1-3). Repeatable for credit with departmental consent.

Upper-Division Courses

MIS 310. Fundamentals of Programming (3). Uses the VB.NET programming language to teach fundamental programming concepts in a visual programming environment. Includes business application development principles for event-driven programming. Prerequisites: ACCT 260, junior standing, advanced standing.

MIS 315. Fundamentals of Data Structures, File Design and Access (3). A second course in programming emphasizing data-structure concepts necessary for building business application systems. Utilizes file design and access applications as the vehicle to teach traditional concepts of in-memory data structures as well as more advanced event-driven, object-oriented programming practices. Prerequisites: MIS 310, junior standing, advanced standing.

MIS 325. Data Communications and Computer Networks (3). Takes a problem-solving approach to introducing data communications and computer networking concepts. Technological and managerial issues in supporting electronic commerce, business-to-business electronic data interchange, virtual teams, extranets, local area networks (LAN), remote access, and internetworking LANs over a wide area network (WAN) are the backdrop for introducing data communication concepts (OSI), standards, protocols, and technologies. Prerequisites: MGMT 360, junior standing, advanced standing.

MIS 330. Systems Analysis and Design (3). Introduces various methodologies for systems analysis, design, and implementation. Examines application development in the context of the overall MIS Master Planning effort; examines techniques related to business process reengineering. Uses a real-life project as the vehicle to put into practice tools and techniques related to interviewing, cost/benefit analysis, computer-aided software engineering, software project management, and system documentation. Prerequisites: MIS 310, junior standing, advanced standing.

MIS 339. Special Topics in MIS (1-3). Repeatable for credit with departmental consent. Prerequisite: junior standing, advanced standing.

MIS 450. Database Management Systems (3). Introduces various methodologies for conceptual data modeling including Entity-Relationship Data Modeling and Object-Oriented Database Design. Covers relational database management systems, the SQL standard, and data administration issues. Students obtain hands-on development with SQL servers in a client/server environment in a required database programming project. Covers the application of database transaction processing, data warehousing, data mining, and distributed database management. Prerequisites: MIS 310, junior standing, advanced standing.

MIS 481. Cooperative Education (1-3). An academic program that expands the student's learning experiences through paid employment in a supervised educational work setting related to the student's major field of study or career focus. Offered Cr/NoCr only. Prerequisites: 2.500 GPA in MIS, junior standing, and advanced standing.

MIS 491. Directed Study (1-3). Individual study for Cr/NoCr only. Prerequisites: 2.750 GPA in MIS, advanced standing, and departmental consent.

MIS 492. Internship in MIS (1-3). Offered Cr/NoCr only. Prerequisites: 3.000 GPA in MIS, advanced standing, senior standing, and departmental consent.

MIS 495. Management Information Systems (3). A study of the structure and the role of computer-based information systems, including information resource management. Prerequisites: 3.000 GPA in MIS, advanced standing, and departmental consent.

MIS 510. Database and Web Programming (3). Uses ASP.NET as the programming tool to teach Web application development. Includes HTML forms and SQL-based data sources for developing interactive and dynamic Web applications within a server-based scripting environment. Covers advanced topics such as ADO and Implementing Security in ASP. Prerequisites: MIS 325 and MIS 450, junior standing, advanced standing.

MIS 560. Knowledge Management (3). Introduces the design and implementation of systems for leveraging organizational knowledge and intellectual capital. Includes the role of expert systems, data warehousing and knowledge discovery tools, knowledge repositories, e-learning applications, and discussion and chat technologies for knowledge creation and sharing in support of decision making and problem solving in business. Prerequisites: MIS 450, junior standing, advanced standing.

MIS 610. Seminar in Selected Topics (1-3). Repeatable for credit with departmental consent. Prerequisites: senior standing, departmental consent, advanced standing.

MIS 896. Management of the IS function (3). Addresses the issues of managing the information systems (IS) function. Includes the role of IS as a corporate entity, developing a strategic plan for IT investments, organizing the IS department, IS personnel management, IS project management, and the role of IS as a user-support entity in auditing the IS function, and emerging issues in managing the IS department. Prerequisites: MIS 450, junior standing, and advanced standing.

Please see the Graduate Catalog for courses numbered 800 and above.
Marketing (MKT)
Department of Marketing and Entrepreneurship

Upper-Division Courses

MKT 190. Selected Topics (1-3). Repeatable with departmental consent.

MKT 300. Marketing (3). A description and analysis of the concepts and tools used by managers in planning and evaluating marketing decisions. Specific topics include product development, pricing, distribution, promotion, information processing, international marketing, and marketing in contemporary society. Prerequisites: junior standing, advanced standing.

MKT 390. Special Group Studies in Marketing (1-3). Repeatable with instructor consent. Prerequisites: junior standing, advanced standing.

MKT 403. Marketing Research (3). Cross-listed as ENTRE 403. A study of the design and implementation of research procedures that support systematic and objective decision-making for marketing planning and strategy development. Prerequisites: ECON 231 and 232, MKT 300, junior standing, advanced standing.

MKT 404. Retail Management (3). An examination of the essential principles and practices of retail business management, including site selection, store design and department layout, merchandise management, sales promotion, and customer services. Also considers the broad issues of modern marketing and financial strategies as they affect retail distribution and clarifies new influences at work in the retailing environment. Prerequisites: MKT 300, junior standing, advanced standing.

MKT 405. Consumer Behavior (3). A study of a variety of concepts in the behavioral sciences related to specific topics in consumer behavior, including consumer decision processes; reference groups; and sociological, psychological, and economic aspects of consumer behavior. Prerequisites: MKT 300, junior standing, advanced standing.

MKT 407. Marketing for Service and Nonprofit Organizations (3). A study of the unique marketing challenges faced by service and nonprofit organizations. Evaluates marketing concepts and appropriate marketing programs from the perspective of service organizations. Prerequisites: MKT 300, junior standing, advanced standing.

MKT 420. Developing a Marketing Plan (3). Cross-listed as ENTRE 420. Emphasizes the analysis and tools required in the development of a marketing plan for a new or existing organization. With extensive use of traditional and web-based research, student develops a marketing plan that positions the firm to achieve a competitive advantage in the marketplace. Prerequisites: ENTRE 310C, MKT 300, or instructor's consent, junior standing, advanced standing.

MKT 481. Cooperative Education (1-3). An academic program that expands a student's learning experiences through paid employment in a supervised educational work setting related to the student's major field of study or career focus. Offered Cr/Nr only. Prerequisites: junior standing, advanced standing, and 2.250 GPA.

MKT 491. Independent Study (1-5). Offered for Cr/Nr only. Closed to graduate credit. Prerequisites: junior standing, advanced standing, and 2.250 GPA in marketing.

MKT 492. Internship in Marketing (1-3). Offered for Cr/Nr only. Prerequisites: junior standing, advanced standing, and 2.250 GPA in marketing, and instructor consent.

Courses for Graduate/Undergraduate Credit

MKT 401. International Marketing (3). Cross-listed as IB 601. Problems and procedures of marketing in foreign countries. Includes the effects of foreign cultures and marketing systems on the design of marketing programs. Prerequisites: MKT 300, junior standing, advanced standing.

MKT 404. Distribution Management (3). A study of all areas involved with the distribution of a firm's products or services. Focuses on such issues as the development of a firm's marketing channels and its relationships with wholesalers and retailers, as well as the management of the firm's storage facilities, inventory control, procedures, and shipping facilities. Prerequisites: MKT 300, junior standing, advanced standing.

MKT 406. New Product Marketing (3). Cross-listed as ENTRE 406. Addresses identifying, evaluating, developing, and commercializing new products within both smaller and larger firms. Explores the role of the product/brand manager, a person who often acts as an internal entrepreneur. Prerequisites: MKT 300, junior standing, advanced standing.

MKT 407. Promotion Management (3). An analysis of all issues involved with the promotion of an organization and its products or services. Students develop coordinated marketing strategies in the areas of advertising, personal sales, public relations, and special promotional activities such as direct marketing, interactive media, and sales promotions. Prerequisites: MKT 300, junior standing, advanced standing.

MKT 408. Selling and Sales Force Management (3). Cross-listed as ENTRE 408. An analysis of current behavioral concepts of personal selling and the problems and policies involved in managing a sales force. Prerequisites: MKT 300, advanced standing.

MKT 409. Marketing Programs (3). A study of all the aspects of the marketing mix that are integrated to make an effective and coordinated marketing program. Prerequisites: MKT 300, 6 additional hours of marketing, junior standing, advanced standing.

MKT 490. Seminar in Selected Topics (1-3). Repeatable with instructor consent. Prerequisites: junior standing, advanced standing.

MKT 750. Workshop in Marketing (1-4). Prerequisite: junior standing.

Please see the Graduate Catalog for courses numbered 800 and above.

Master of Business Administration (MBA)
Graduate Studies in Business

Please see the Graduate Catalog for MBA courses.

Real Estate (RE)
Department of Finance, Real Estate, and Decision Sciences

Lower-Division Course

RE 190. Selected Topics (1-3). Repeatable with departmental consent.

Upper-Division Courses

RE 310. Principles of Real Estate (3). Provides a practical introduction to real estate markets and decision-making for students of all backgrounds and career goals. Special emphasis is placed on how individuals and businesses interact with real estate on a daily basis. Course topics include urban development and growth patterns, zoning and other restrictions on land use, the real estate sales process, mortgage finance, appraisal, business location decisions, and the basics of real estate investment. Prerequisite: junior standing.

RE 390. Special Group Studies in Real Estate (1-3). Repeatable with departmental consent. Prerequisite: junior standing, advanced standing.

RE 438. Real Estate Law (3). Laws and regulations affecting real estate ownership and use, including ownership interests; conveyancing, mortgages, title assurance, landlord-tenant relationships, and public and private land-use controls. Prerequisites: junior standing, advanced standing.

RE 461. Cooperative Education (1-3). An academic program that expands a student's learning experiences through paid employment in a supervised educational work setting related to the student's major field of study or career focus. Offered Cr/Nr only. Prerequisites: junior standing, advanced standing, and 2.250 GPA.

RE 491. Independent Study (1-5). Offered Cr/Nr only. Closed to graduate credit. Prerequisites: junior standing, advanced standing, and 2.250 GPA in real estate courses.

RE 492. Internship in Real Estate (1-3). Offered Cr/Nr only. Prerequisites: junior standing, advanced standing, 2.250 GPA in real estate, and departmental consent.
Courses for Graduate/Undergraduate Credit

RE 611. Real Estate Finance (3). Cross-listed as FIN 611. Real estate financing instruments, institutions, traditional and creative financing techniques. Risk analysis, mortgage financing and underwriting, primary and secondary mortgage markets. Prerequisites: FIN 340, junior standing, advanced standing.

RE 614. Real Estate Appraisal (3). Analysis of factors that create real estate value: Cost, sales comparison, and capitalized income approaches to market value. Highest and best use analysis. Prerequisites: RE 310 or instructor consent, junior standing, advanced standing.

RE 618. Real Estate Investment Analysis (3). Cross-listed as FIN 618. Equity investor decision criteria, institutional and ownership entity investment constraints, financial leverage opportunities, cash flow analysis, and creative income tax strategies. Prerequisites: FIN 340, junior standing, advanced standing.

RE 619. Urban Land Development (3). A hands-on course to familiarize students with all aspects of land development, including supply and demand analysis, site selection, feasibility analysis, development financing, cash-flow budgeting, and marketing strategies. Prerequisites: RE 310, 611, 618, or instructor consent; junior standing; advanced standing.

RE 690. Seminar in Selected Topics (1-5). Repeatable with departmental consent. Prerequisites: junior standing, advanced standing.

RE 750. Workshop in Real Estate (1-4). Prerequisite: junior standing.

Please see the Graduate Catalog for courses numbered 800 and above.
College of Education

Jon Engelhardt, PhD, Dean
107 Corbin Education Center
(316) WSU-3300
education.wichita.edu

The College of Education offers programs to develop skilled and competent teachers, administrators, counselors, school psychologists, speech and language clinicians, and other specialists. College faculty also contribute to the improvement of education at local, state, and national levels through their teaching, research, and professional service.

Curricula listed in the following sections give students an opportunity for systematic study. These programs enable students to develop (1) an understanding of education's place in a democratic society, (2) a philosophy of education consistent with functioning in that society, and (3) a conceptual base to use in relating theory to practice, which includes knowledge of human growth and development and principles of human learning.

The College of Education is accredited by all appropriate agencies, including the Kansas State Board of Education, the National Council for the Accreditation of Teacher Education, the American Speech/Hearing Association, and the National Association of School Psychologists. The college recommends appropriate teacher's certificates be issued to those who complete requirements established by the board.

The college also offers BA degree programs in exercise science and in sport administration. The exercise science degree program prepares students for careers involving exercise physiology, physical therapy, health promotion, clinical exercise-related fields, rehabilitation, medicine, biology of exercise, research and academia, or graduate education. The sport administration degree program prepares students for careers in a variety of sport industry segments including college athletics, professional and minor league sports, park and recreation departments, sport governing associations, and sport and/or fitness centers.

Degrees Offered
Undergraduate

The college offers teaching and non-teaching programs leading to the bachelor's degree and/or to state teacher certification at the elementary and secondary levels. The State Board of Education regulates standards for all teaching certificates; curricula offered by the college are altered as needed to meet changes in those requirements.

The programs in kinesiology, sport studies, and communicative disorders and sciences provide non-teaching routes to the bachelor's degree. A student may obtain a second bachelor's degree in the College of Education. This requires (1) admission to the College of Education, (2) completion of a minimum of 30 credit hours in a program not required for the first bachelor's degree, and (3) completion of all the requirements for graduation from the College of Education.

Graduate

The College of Education offers programs leading to the Master of Arts (MA) in communicative disorders and sciences; the Master of Education (MEd) in counseling, curriculum and instruction, educational administration, educational psychology, physical education, sport administration, and special education; the Specialist in Education (EdS) in school psychology; the Doctor of Education (EdD) in educational administration; the Doctor of Audiology (AuD); and the Doctor of Philosophy (PhD) in communicative disorders and sciences.

Graduate offerings include courses which help students meet requirements for state certification or licensure as principals, supervisory personnel, district school administrators, school counselors, early childhood teachers, English as a second language teachers, special education teachers, reading specialists, school psychologists, speech and language pathologists, audiologists, and gifted teachers. Other programs are available to support the continued academic and professional development of teachers. Graduate offerings are also available to support careers in sport-related businesses and exercise-related programs at all levels.

Policies

Undergraduate Admission

Students who have declared a major in one of the programs in the College of Education will be admitted directly into the college upon admission to WSU. Students are required to maintain at least a 2.500 overall grade point average to remain in good standing. Any student denied admission to the college may appeal by filing a written petition with the Standards Committee of the College of Education.

Admission to Teacher Education

Students are advised on the basis of the program (check sheet) in effect when they are admitted into teacher education rather than the program (check sheet) in effect when they began their college or university work.

Admission to the College of Education does not mean that a student is accepted into one of the certification programs in teacher education. Students must satisfy the following requirements to be admitted as a candidate for a Kansas teacher's licensure:

1. 42 hours of basic skills and general education
   a. 2.75 GPA or above; may include up to 10 hrs. of required coursework in the subject major
   b. ENGL 101 and 102 with a grade of C or better
   c. COMM 111 with a grade of C or better
   d. MATH 111 or higher with a grade of C or better
   Note: Above courses must be completed within a student's first 48 hours.
   2. STAT 350 and PSY 111

3. Pre-Professional Skills Test (PST)
   a. Writing — score of 172 or higher
   b. Reading — score of 173 or higher
   c. Mathematics — score of 172 or higher

4. Introduction to the Profession with Field Experience (CI 271 with grade of B or better and CI 272 with grade of S)

5. Grade Point Average (GPA)
   a. Overall: 2.5
   b. WSU: 2.5
   c. Lower-Division Courses in the Major: 2.5

6. A minimum of 100 clock hours of supervised experience with children or adolescents (or other significant experience as defined by the licensure level/program) that demonstrate dispositions suitable for the teaching profession;

b. Two letters of reference from supervisors or adults familiar with your supervised experience.

7. A 300-word statement (to be completed during class in CI 271 or in the WSU testing center under supervision) that documents reasonable written communication skills and suitable rationale for entry into the teacher education program.

8. An interview with the faculty or faculty committee responsible for each licensure level/program area.

9. Completed application with packet (with the above information/requirements submitted and/or completed).

Enrollment Limits

Students enrolled in the College of Education may not enroll in more than 21 semester hours of work per semester during the academic year. Summer Session enrollments are limited to a maximum of 6 hours for each four-week session or 12 hours during the Summer Session. Students who have completed at least 24 hours at WSU with a WSU grade point average of 3.000 or better may petition their department chairperson for permission to enroll in excess hours.

Probation and Dismissal

Students are placed on probation at the end of any semester in which they do not have a cumulative and WSU grade point average of 2.500. Probation is removed when their cumulative and WSU grade point averages reach the 2.500 level. Students remain on probation if they earn a 2.500 or better grade point average in the semester during which they are on probation, but their cumulative or WSU grade point average remains below 2.500.

Students on probation will not be academically dismissed until they accumulate 12 or more attempted hours after being placed on probation, failed to earn at least a 2.500 semester average and if their cumulative or WSU grade point average remains below a 2.500.

Students dismissed for poor scholarship may reenroll only with the special permission of the Standards Committee.
Students who have been dismissed for academic reasons may seek readmission to the College of Education by appealing in writing for an exception to the regulations. The College of Education requires petitioners to meet with an academic counselor, and to prepare a written petition which is considered by the Standards Committee of the College of Education and then forwarded to the University’s Committee on Admissions and Exceptions for final action.

Academic counseling and advanced planning require careful attention and time. Thus, students should secure their recent academic records, complete their petition, and have their re-admissions counseling session well in advance of the semester for which they wish to be readmitted.

Students develop their own cases for readmission. They should center their petitions around reasons for their failure and presentation of evidence for probable future success.

Transfer Students
Transfer students admitted on probation must complete at least 12 semester hours of credit work and achieve a 2.500 grade point average on work at Wichita State before probation is removed.

Students on probation normally are limited to a maximum load of 12 hours per semester, although exceptions may be made by the Associate Dean of the College of Education. The limitation of 12 hours also applies to students who have declared a transition semester.

All students who have accumulated 12 attempted credit hours after being placed on probation and who do not have a 2.500 grade point average for the most recent semester or Summer Session will be academically dismissed. Students who have been dismissed may seek readmission to the College of Education by appealing, in writing, for an exception to the regulations.

Cooperative Education Internships
The College of Education is one of the participating colleges in the University’s Cooperative Education Internship Program. This program is designed to provide off-campus, paid work experiences that integrate, complement, and enhance the student’s regular academic program. Students are placed in a variety of educational experiences which range from early childhood through university settings. Participation in the program requires enrollment for credit in specific Cooperative Education courses designated by the appropriate academic department in the college. To enroll in the program or for more information, students should contact the Cooperative Education coordinator.

Professional Development School Opportunity
A Professional Development School (PDS), a collaboration between school and University faculty and staff, supports effective teaching practices, integration of intern and teacher learning with instructional programs, collegiality, inquiry, and dissemination of new knowledge. This design provides an environment which mixes the best of theory, research, and practice and provides an exciting alternative to the current
teacher education program. In the PDS program, students spend 10 to 12 hours a week at one of the PDS complexes (either the elementary, middle school, or high school). The eight professional courses plus a portion of elective hours are delivered at the complex. Students interested in applying for the program should contact the chairperson of the Department of Curriculum and Instruction.

Transition-to-Teaching Program
For those individuals who have undergraduate degrees in major fields that are transferable to secondary licensure, and in areas of high need, there is an alternative route to completing teacher certification. All of the standards of the traditional teacher education program are required, but the model of delivery is designed to meet the needs of schools and adults making the transition from another career into teaching.

Requirements for Graduation
Several sets of graduation requirements apply to undergraduates in the College of Education seeking a Bachelor of Arts (BA) in education or the institution’s recommendation for a teaching licensure.

Students should study carefully the requirements for their particular area of study.

Under Kansas Department of Education policies students are expected to complete all program requirements in effect at the time they are admitted into teacher education. Students transferring to the College of Education will be advised on the basis of the program (check sheet) in effect when they are admitted into teacher education rather than the program (check sheet) in effect when they began their college or university work.

For graduation from the College of Education, students must satisfactorily complete all program requirements, complete a minimum of 124 semester hours of credit, have at least a 2.50 grade point average in the major field, and must have at least a 2.50 overall grade point average.

Requirements for Teacher Certification
All graduates applying for teacher certification in Kansas are required to complete the Principles of Learning and Teaching (PLT) and the Praxis content examinations established by the Kansas State Department of Education in order to qualify for their conditional license. A grade of C or better in student teaching is necessary to receive a recommendation for a teaching license.

Prospective teachers in specialized fields of art and music are subject to certain departmental requirements and the general and professional education requirements listed under secondary education. (Students planning to teach fine arts should consult the College of Fine Arts section of the Catalog.)

WSU General Education
A total of 42 hours of General Education courses is required for all students in the college, including the following requirements for graduation:

1. Basic Skills courses (12 hours) to be completed with a grade of C or better.
   - ENGL 100 or 101 and 102, College English I and II (6 hours)
   - COMM 111, Public Speaking (3 hours)
   - MATH 111, College Algebra (3 hours)
   - CDS, Exercise Science, and Sport Administration majors may take either Math 111, College Algebra (5), or Math 131, Contemporary Mathematics (3).

2. Distribution requirements
   A. Fine Arts and Humanities
      One introductory course from a fine arts discipline.
   B. Social and Behavioral Sciences
      One introductory course from two humanities disciplines.
      One further study course from the same discipline as one of the introductory courses above, or an issues and perspectives course in fine arts or humanities.
   C. Mathematics and Natural Sciences
      One introductory course from two different social and behavioral science disciplines.
      One further study course from the same discipline as one of the introductory courses above, or an issues and perspectives course in social and behavioral science.

An introductory course meets General Education objectives and serves as an introduction to the discipline. A further study course is taken in a discipline once a student has completed an introductory course in the same discipline. An introduction course and one which informs students of issues or problems from a disciplinary perspective. Students may take either a second course in a discipline represented by an introductory course or an issues and perspectives course from the division housing that discipline. Students must complete at least one and not more than two issues and perspectives courses to fulfill General Education requirements. Courses within the student’s major discipline do not count toward General Education requirements.

General Education for Teacher Education
General education standards for teacher education candidates are provided by the Kansas State Department of Education as guidelines for institutions and cover knowledge of communication; world cultures; mathematics; the natural world; social, emotional, and physical well-being; and the arts. To address these guidelines, the teacher education unit faculty at WSU identified a set of courses for teacher education majors.

Where possible, these courses may count in the WSU general education program. Because various majors within the program will have specific requirements, students should work closely with an advisor from the time of entrance to WSU. A grade of C or better is required of all basic skills courses (ENG 101 and 102, COMM 111, and College Algebra).

Communication
   - English 101* and 102*
   - Communications 111*

World Cultures
   - History 100 or 103
   - Anthropology 102

Mathematics
   - Math 111*
   - Statistics 370 (required of all majors except math)

Natural World (choose one)
   - Biology 370
   - Geology 300
   - Philosophy 300
   - Physics 320 or 502

Social, Emotional, and Physical Well-being
   - Psychology 1110*

The Arts (choose one)
   - Music Composition 160, 162, or 310
   - Art Education 303
   - Art History 121, 122, or 124
   - Theater 143
   - English 230 of 232

* required of all majors

College of Education Specific Requirements
In addition to or as part of the University General Education requirements listed above, students applying for a degree from the College of Education, or for teacher certification must have PSY 111. Students seeking teacher certification must also take Stat. 370 or any higher-level math course.

Professional Education
Professional education requirements in areas of specialization and additional General Education requirements in these areas are summarized on the following pages.

Communicative Disorders and Sciences
   - General Education

Students majoring in communicative disorders and sciences are expected to meet all University General Education requirements. In Social and Behavioral Sciences, courses must be taken in two different departments. At least 3 hours of psychology are required.

Early Childhood Unified (Birth through Grade 3)
The State of Kansas and Wichita State University provide licensure for birth through grade three through the early childhood unified program, endorsing teachers to work with normal and exceptional children born through grade three in special day schools, inclusive settings, and public school regular education classrooms. The coursework contains courses in general
education, teacher education, and a set of content courses in reading/language arts, literacy, mathematics, science, social studies, the arts, and health/nutrition/physical education. The selection of courses is made with an academic advisor representing the College of Education and should begin at entrance to WSU. The teaching field should be declared as early as possible in order to keep the number of courses taken to a minimum.


I. General Education
Students majoring in elementary education should meet all requirements in the General Education Program. In addition, two social science courses and Psychology 111 are required in Social and Behavioral Sciences. In Mathematics and Natural Sciences, a biological science and/or a physical science are required (one must include a lab), along with MATH 501.

II. Professional Education
Preprofessional Block

<table>
<thead>
<tr>
<th>Course</th>
<th>Hrs.</th>
</tr>
</thead>
<tbody>
<tr>
<td>CI 271, Introduction to Professional Education</td>
<td>2</td>
</tr>
<tr>
<td>CI 272, Field Experience</td>
<td>1</td>
</tr>
</tbody>
</table>

Block I

<table>
<thead>
<tr>
<th>Course</th>
<th>Hrs.</th>
</tr>
</thead>
<tbody>
<tr>
<td>CESP 334, Growth and Development</td>
<td>2</td>
</tr>
<tr>
<td>CI 430, Social/Multicultural Education</td>
<td>3</td>
</tr>
<tr>
<td>CI 320, Introduction to Exceptional Children</td>
<td>1</td>
</tr>
<tr>
<td>CI 311, Field Experience/Block I</td>
<td>1</td>
</tr>
</tbody>
</table>

Block II

<table>
<thead>
<tr>
<th>Course</th>
<th>Hrs.</th>
</tr>
</thead>
<tbody>
<tr>
<td>CESP 433, Learning and Evaluation</td>
<td>3</td>
</tr>
<tr>
<td>CI 328, Curriculum, Instruction, Management and Technology</td>
<td>5</td>
</tr>
<tr>
<td>CI 312, Field Experience/Block II</td>
<td>1</td>
</tr>
</tbody>
</table>

III. Elementary Specialization
In addition to the General Education requirements and the professional education sequence, students majoring in elementary education must fulfill the teaching specialty emphasis of the elementary program. Students should work closely with a faculty advisor in the College of Education to be sure they meet certification and degree requirements. A check sheet of requirements is available from the College of Education.

Professional Education Coursework for Elementary Education, K-6 (2003 forward)
The elementary major prepares teachers to teach in grades K-6 the range of grades covered in a typical elementary school. The coursework covers general education, teacher education, and a set of content courses in reading/language arts, mathematics, science, social studies, the arts, and health/nutrition/physical education. The selection of courses is made with an academic advisor representing the College of Education and should begin at entrance to WSU. The teaching field should be declared as early as possible in order to keep the number of courses taken to a minimum.

Three cores of professional education coursework form the structure for all teacher education licensure areas. For elementary education, the core includes the following:

**Prerequisites for Entrance to Teacher Education**

<table>
<thead>
<tr>
<th>Course</th>
<th>Hrs.</th>
</tr>
</thead>
<tbody>
<tr>
<td>CI 271, Intro to the Profession (B or better)</td>
<td>2</td>
</tr>
<tr>
<td>CI 272, Field Experience (S required)</td>
<td>1</td>
</tr>
</tbody>
</table>

**Core I—Foundations Core**

<table>
<thead>
<tr>
<th>Course</th>
<th>Hrs.</th>
</tr>
</thead>
<tbody>
<tr>
<td>CESP 334, Intro to Diversity: Human Growth and Development</td>
<td>2</td>
</tr>
<tr>
<td>CI 321, Intro to Diversity: Cultural Issues</td>
<td>2</td>
</tr>
<tr>
<td>CI 320, Intro to Diversity: Exceptionalities</td>
<td>2</td>
</tr>
<tr>
<td>CI 311, Intro to Diversity: Field Experience</td>
<td>1</td>
</tr>
<tr>
<td>CI 427, History, Philosophy, and Ethics of Education</td>
<td>3</td>
</tr>
<tr>
<td>CI 317, Literacy Strategies in the Content Areas</td>
<td>2</td>
</tr>
</tbody>
</table>

**Core II—Instruction, Assessment, Management**

<table>
<thead>
<tr>
<th>Course</th>
<th>Hrs.</th>
</tr>
</thead>
<tbody>
<tr>
<td>CESP 433, Intro to Learning and Evaluation</td>
<td>3</td>
</tr>
<tr>
<td>Instructional Strategies, Assessment, and Management (ISAM) (Language Arts/Reading, Math, Science, and Social Studies)</td>
<td>3-5</td>
</tr>
<tr>
<td>Prestudent Teaching for each ISAM course</td>
<td>1-2</td>
</tr>
</tbody>
</table>

**Core III—Student Teaching (12 hours)**

<table>
<thead>
<tr>
<th>Course</th>
<th>Hrs.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Student Teaching: Elementary</td>
<td>1</td>
</tr>
</tbody>
</table>

Content Requirements for Elementary Education

In addition to professional education coursework for elementary education, majors must also complete the following content coursework:

**Reading/Language Arts**

<table>
<thead>
<tr>
<th>Course</th>
<th>Hrs.</th>
</tr>
</thead>
<tbody>
<tr>
<td>English 101</td>
<td>3</td>
</tr>
<tr>
<td>English 102</td>
<td>3</td>
</tr>
<tr>
<td>Communications 111</td>
<td>3</td>
</tr>
<tr>
<td>English 220 or 232, American Lit.</td>
<td>3</td>
</tr>
<tr>
<td>English 415</td>
<td>3</td>
</tr>
<tr>
<td>CI 316, Children's Literature</td>
<td>3</td>
</tr>
</tbody>
</table>

**Mathematics—15 hrs.**

<table>
<thead>
<tr>
<th>Course</th>
<th>Hrs.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Math 111, College Algebra</td>
<td>3</td>
</tr>
<tr>
<td>Math 501, Elem. Math (C or better)</td>
<td>5</td>
</tr>
<tr>
<td>CI 319, Math Investigations</td>
<td>3</td>
</tr>
<tr>
<td>Statistics 371, Elementary Statistics</td>
<td>3</td>
</tr>
</tbody>
</table>

**Science—12 hrs.**

<table>
<thead>
<tr>
<th>Course</th>
<th>Hrs.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Biology or other Life Science Course</td>
<td>3</td>
</tr>
<tr>
<td>Geology 300, Energy, Resources, &amp; Env.</td>
<td>3</td>
</tr>
<tr>
<td>Physics 302 Investigation in Science</td>
<td>3</td>
</tr>
<tr>
<td>Social Sciences—15 hrs.</td>
<td>5</td>
</tr>
<tr>
<td>Psychology 111</td>
<td>3</td>
</tr>
<tr>
<td>Anthropology 102, Cultural Anthropology</td>
<td>3</td>
</tr>
<tr>
<td>History 131 or 132, U.S. History</td>
<td>3</td>
</tr>
<tr>
<td>LAS 303, Global Issues</td>
<td>3</td>
</tr>
<tr>
<td>Geography 125, Principles of Geography</td>
<td>3</td>
</tr>
</tbody>
</table>

Middle-Level Teaching Fields (Grades 5-8)
The middle-level major prepares teachers to teach in grades 5-8 the range of grades covered in a typical middle school. The program requires coursework in two content areas. The courses identified to meet most majors below can be taken in both the general education program and the major. In most cases each content area includes 30 hours (half of which can be taken within general education), making the major coursework beyond general education 30-36 hours. In addition, candidates must complete the teacher education core.

The selection of teaching fields is made with an academic advisor representing the College of Education. The teaching field should be declared as early as possible in order to keep the number of courses taken to a minimum. Students who plan to teach in middle schools may select from the following majors:

**Majors**

- English/Language Arts and Mathematics
- English/Language Arts and Science
- English/Language Arts and History Comprehensive Mathematics and Science
- Mathematics and History Comprehensive
- History Comprehensive and Science


I. General Education

Students majoring in secondary education should meet the requirements in the General Education Program as listed above.

II. Secondary Teaching Major

Students must fulfill the teaching specialty emphasis of a program as specified in the teaching field section that follows. Only those specialties listed among the combined curricula and departmental majors and minors (in the majors and minors section) may be counted.

III. Professional Education

The following courses are required:

**Preprofessional Block**

<table>
<thead>
<tr>
<th>Course</th>
<th>Hrs.</th>
</tr>
</thead>
<tbody>
<tr>
<td>CI 271, Introduction to Professional Education</td>
<td>2</td>
</tr>
<tr>
<td>CI 272, Field Experience</td>
<td>1</td>
</tr>
</tbody>
</table>

For majors in math, science, social studies, English

<table>
<thead>
<tr>
<th>Course</th>
<th>Hrs.</th>
</tr>
</thead>
<tbody>
<tr>
<td>CESP 334, Growth and Development</td>
<td>2</td>
</tr>
<tr>
<td>CI 430, Social/Multicultural Education</td>
<td>3</td>
</tr>
<tr>
<td>CI 320, Introduction to Exceptional Children</td>
<td>2</td>
</tr>
<tr>
<td>CI 311, Field Experience/Block I</td>
<td>1</td>
</tr>
<tr>
<td>CESP 433, Learning and Evaluation</td>
<td>5</td>
</tr>
<tr>
<td>CI 328, Curriculum, Instruction, Management and Technology</td>
<td>5</td>
</tr>
<tr>
<td>CI 312, Field Experience/Block II</td>
<td>1</td>
</tr>
</tbody>
</table>

In addition to the General Education requirements, the professional education sequence, and the requirements for the major, secondary students must complete the pre-student teaching and the student teaching requirements. Students should work closely with a faculty advisor in the College of Education to be sure they meet certification and degree requirements. A check sheet of requirements is available in the College of Education.

Secondary Teaching Major

WSU College of Education offers secondary teaching majors in Biology, Chemistry, Earth and Space Science,
English/Language Arts, History and Government, Mathematics, and Physics. Checksheets that list the requirements are available in the Office of Education and Support Services (107 Corbin).

**General Education for Teacher Education**
(Listed previously: however, some specific requirements exist within the various content areas. Please contact an advisor in the College of Education.)

**Professional Education Coursework for Secondary Education (2003 forward)**

Three cores of professional education coursework form the structure for all teacher education licensure areas. For secondary education, the core includes the following:

- **Prerequisites for Entrance to Teacher Education**
  - CI 121, Intro to the Profession (B or better) ....... 2
  - CI 272, Field Experience (S required) ............... 1

- **Core I—Foundation Core**
  - CESP 334, Intro to Diversity: Human Growth and Development .......... 2
  - CI 320, Intro to Diversity: Cultural Issues .......... 2
  - CI 320, Intro to Diversity: Exceptionalities ......... 2
  - CI 311, Intro to Diversity: Field Experience ........ 1

- **Chemistry**
  - CI 427, History, Philosophy, and Ethics of Ed ....... 3

- **Core II—Instruction, Assessment, Management**

  - CESP 433, Intro to Learning and Evaluation .......... 3
  - Instructional Strategies, Assessment, and Management (English/Language Arts, Math, Science, or History & Government) ........... 3

- **Core III—Student Teaching (12 hours)**

  - Student Teaching: Elementary (English/Language Arts, Math, Science, or History & Government) .......... 11

- **Student Teaching Seminar** ............................. 1

- **For majors in physical education, art, and music (1991-2003)**

  - **Block I**
    - Course Title: English/Language Arts, History and Government, Mathematics, and Physics.
    - CI 324, Growth and Development ...................... 2
    - CI 320, Social/Multicultural Education ............... 3
    - CI 320, Introduction to Exceptional Children, or ART E 518, Art for the Exceptional Child, or MUS E 611, Music for Special Education, or KSS 360, Adaptive PE .................. 2
    - CI 311, Field Experience/Block I ...................... 1

  - **Block II**
    - CESP 433, Learning and Evaluation ................. 3
    - CI 328, Curriculum, Instruction, Management and Technology .......... 5
    - CI 312, Field Experience/Block II ................... 1

- **In addition to the General Education requirements, the professional education sequence, and the requirements for the major, secondary students must complete the pre-student teaching and the student teaching requirements. Students should work closely with a faculty advisor in the College of Education to be sure they meet certification and degree requirements. A check sheet of requirements is available in the College of Education.**

  - **For majors in music education**
    - For other requirements, see Music Education, College of Fine Arts.

  - **For majors in art education**
    - For other requirements, see Art Education, College of Fine Arts.


  - The major is generally no fewer than 30 semester hours.
  - (For specific exceptions see the combined curricula programs.)
  - Students may elect certain of the majors offered in Fairmount College of Liberal Arts and Sciences, the College of Fine Arts, or the College of Education.
  - Students meet the specific course requirements of the department in which the major is offered. For example, students may elect major in art because they wish to become high school art teachers.
  - To do so, they complete the art major as prescribed by the School of Art in the College of Fine Arts. In addition, they complete the University's General Education/requirements, the professional education sequence, and other requirements for the teacher's certificate prior to graduation.
  - Students should work closely with a faculty advisor in the College of Education to be sure they meet certification requirements.
  - A check sheet of requirements for each teaching field is available from the College of Education.

  - The selection of teaching fields is made with an academic advisor representing the College of Education.
  - The teaching field or major should be declared no later than the beginning of the junior year. Students who plan to teach in secondary schools may select their major and minor from the fields given below. The minor will not qualify a student to teach unless special arrangements have been made in advance.

- **Majors and Minors**

  - **Art**
    - English language and literature
    - Mathematics
    - Music
    - Physical education
  - **Science**
    - Chemistry
    - Natural sciences—biological
    - Natural sciences—physical
  - **Social studies**
  - **Minors Only**
    - Earth-space science
    - General science
    - Health
    - Journalism
    - Library media

  - **Speech communication**
    - Teaching English to speakers of other languages

  - *Needs no minor.

- **Combined Curricula**

  - The teaching assignment after graduation often involves a combination of related subjects. For this reason intensive study in the following combined disciplines is offered in lieu of a departmental major and minor.

  - Students should work closely with advisors to ensure proper course selection for certification and degree. A check sheet of requirements for each teaching field is available from the College of Education.

- **Natural Science—Biological**

  - This major requires a minimum of 50 hours. A teacher who qualifies under this provision may teach chemistry and general science as well as biology.

- **Natural Science—Physical**

  - This major requires a minimum of 50 hours. A teacher who completes this program may teach chemistry, general science, and physical science.

- **Secondary Teaching Fields (2003 forward)**

  - English/Language Arts
  - Mathematics
  - Biology
  - Chemistry
  - Physics
  - Earth and Space Science
  - History and Government

- **Administration, Counseling, Educational and School Psychology**

  - The Department of Administration, Counseling, Educational and School Psychology offers courses at the undergraduate level taken by students both in and outside of the College of Education. In addition, the department offers programs leading to the Master of Education (MEd) in educational administration, the MEd in counseling, the MEd in educational psychology; the Specialist in Education (EdS) in school psychology, and the Doctorate of Education (EdD) in educational administration.

- **Counseling, Educational and School Psychology (CESP)**

  - **Lower-Division Courses**
    - CESP 150, Workshops in Education (1-2).

  - **Upper-Division Courses**
    - CESP 334, Introduction to Diversity: Human Growth and Development (2). Provides a comprehensive overview of the theories, methods, and content of child development. Learning should come from multiple sources: required and non-
required reading, group discussions, class projects, individual student development, etc. The framework for this course has four major dimensions: (a) basic theoretical and research issues, (b) development from an interdisciplinary perspective, (c) interaction of life experience and human change, and (d) applying this understanding to the "real" world. Prerequisites: CESP 334, CI 311, 320, 321; concurrent enrollment in CI 311.

CESP 433. Introduction to Learning and Evaluation (3). Examines the nature of learning and memory, learning strategies, individual differences, and social factors influencing learning. Also examines the use of measurement instruments, observations, questioning strategies, and grading plans. Students learn to apply psychological and evaluation principles to teaching and learning. Prerequisites: CESP 334, CI 311, 320, 321; concurrent enrollment in appropriate ISAM course.

CESP 458. Workshops in Education (1-4). Accommodates a variety of topics related to counseling, guidance, and communication issues in helping relationships. May emphasize different preselected topics during a semester. Repeatable for credit.

CESP 490. Independent Studies (1-3).

Courses for Graduate/Undergraduate Credit

CESP 701. Introduction to Educational Research (3). An introduction to research in education. Includes (1) a survey of current educational research, (2) the nature of research methodology, (3) the preparation of research reports, and (4) criticism of current research.

CESP 704. Introduction to Educational Statistics (3). An introduction to statistics, including measures of central tendency, measures of variability, correlation, chi square, median test, t test, correlated t test, and one- and two-way analysis of variance.

CESP 707. Child Abuse and Neglect (1). This course is crosslisted as PSY 968. Acquaints students with the etiological factors, potential indicators, consequences, reporting procedures, and treatment strategies associated with child abuse and neglect. Covers DSM-IV diagnostic categories associated with abuse and neglect.

CESP 728. Theories of Human Development (3). Describes what developmental theories are, what they do, where they come from, how they work, and how they are used to explain human nature. Uses theoretical assumptions and related research to systematically evaluate developmental theories in terms of their scientific worthiness and their ability to address characteristics of human development. Focuses on those theories which helped shape the way we currently view human development as well as significant new perspectives which may shape the way we view it in the future. Prerequisites: CESP 334, PSY 334, or equivalent, and CESP 701 or equivalent, or instructor's consent.

CESP 752. Special Studies in Education (1-3). For students with personal and guidance interests. May emphasize different preselected areas during a semester. Repeatable with advisor's consent. Prerequisite: instructor's consent.

Please see the Graduate Catalog for courses numbered 800 and above.

Educational Administration and Supervision (EAS)

Courses for Graduate/Undergraduate Credit

EAS 750. Experienced Administrator's Workshop (1-4). Offers a variety of administrative topics.

EAS 752. Special Studies in Educational Administration and Supervision (1-3). Group study in a preselected specialized area of educational administration and supervision. Repeatable for credit with departmental consent. Prerequisite: departmental consent.

Please see the Graduate Catalog for courses numbered 800 and above.

Communicative Disorders and Sciences (CDS)

The Department of Communicative Disorders and Sciences provides academic and clinical education for students at Wichita State University who wish to work with communicatively handicapped children and adults. The undergraduate program offers broad, comprehensive, and professional preparation for specialized training, which is offered on the graduate level. Graduate work, culminating in a master's degree (speech-language pathology) or doctoral degree (audiology), is required to obtain professional certification in the public schools, hospitals, or rehabilitation centers. To engage in private practice, a graduate degree is required. Students completing the graduate program will be eligible to apply for certification by the American Speech-Language-Hearing Association. The Ph.D. in communicative disorders and sciences prepares individuals to function professionally as independent clinicians, as teacher-scholars in an academic setting, or as program administrators.

The department of Communicative Disorders and Sciences operates under its guiding program document for communicative disorders and sciences, which represents a shared vision among all members of the department and serves as a guide for ongoing programmatic assessment. For more information, please see www.wichita.edu/ods/gpd.

Undergraduate Minor

The preprofessional, undergraduate major places primary emphasis in the general area of communicative sciences and disorders in the specialized areas of speech-language pathology and audiology. Supervised practicum courses are required as part of the educational program.

Students should make formal application for practicum courses one semester prior to enrollment. Evaluation of the student's speech, language, and hearing proficiency will be conducted. Significant deviations in any area must be corrected to maximum ability before enrollment in practicum courses or student teaching. In addition, medical clearance is required for all observation and practicum classes. Admission to a major in CDS does not constitute assurance of automatic entrance into the practicum or student teaching sequence.

Students in the College of Education must select certain courses from the General Education Program that will satisfy teacher certification requirements. These are stated under general requirements at the beginning of the College of Education section of the Catalog.

The major, consisting of a minimum of 50 hours, involves a complete undergraduate major in speech-language pathology and audiology. Students must work closely with advisors to ensure proper course selection for certification and degree. A check sheet of requirements is available from the College of Education and the department office, 113 Hubbard Hall.

Teacher Education Certification

One full semester of practicum in the public schools is required at the graduate level for all students working toward certification as speech-language pathologists or audiologists in an educational setting.

Students must apply for practicum in an educational setting at least one semester in advance of practicum work. They must have a minimum overall grade point average of 3.00; a 3.00 average in the major field; a grade of C or better in English 101 and 102; and in Communication 111, or their equivalents, and the recommendation of the major department.

Clinical Certification

The communicative disorders and sciences undergraduate professional major may be applied toward certification by the American Speech-Language-Hearing Association. This certification requires a master's degree, with major emphasis in speech-language pathology. A doctoral degree is required for certification in audiology.

Undergraduate Minor

A minor in communicative disorders and sciences consists of 18 hours and may be earned in either the College of Education or Fairmount College of Liberal Arts and Sciences. The following courses are recommended for a minor unless other arrangements are made: CDS 111, 232, 300, 304, 306, and 591. Arrangements for the minor should be made in consultation with an advisor in the Department of Communicative Disorders and Sciences.

Other Requirements

Participation in the department's clinical practicum courses requires that a student obtain medical clearance prior to the start of the course. This requirement is indicated in the individual course descriptions. Procedures to be followed may be obtained from the department's office. Also, students who participate in active clinical practice during the year must purchase professional liability insurance from the department in the amount of not less than $1,000,000/$3,000,000. This must be done each year the student is enrolled in practicum courses.

CDS 771. Communicative Development and Disorders, the general survey course and may not be used as part of a major.
Special Certificate Program
The Department of Communicative Disorders and Sciences offers a certificate program for interpreter development in Signing Exact English (SEE). The Educational Interpreter Development Certificate Program: Signing Exact English helps classroom interpreters or others interested in the deaf or hard of hearing attain sufficient signing competence to meet or exceed Level 3 (Intermediate) performance on the Educational Interpreter Performance Assessment (EIPA). The program requires 19 credit hours and generally can be completed in one academic year, including the summer session. Contact the department office for details.

Clinical Services
Clinical services for members of the community with speech, language, or hearing disorders, as well as students enrolled at Wichita State, may be arranged with the Speech-Language-Hearing Clinic. Fees are charged for these services.

General
Admission to courses is possible with a minimum grade of C in each stated prerequisite or its judged equivalent, or with departmental consent, unless otherwise specified in the course description.

Lower-Division Courses
CDS 111. Disorders of Human Communication (3). An orientation to disorders of human communication, communicative and psychosocial problems commonly encountered, and general approaches to habilitation.

CDS 222. Introduction to Clinical Practices in Communicative Disorders (3). An overview of clinical assessment and treatment procedures for communicative disorders. Requires observation of assessment and treatment techniques for speech-language-hearing clinic and facilitates understanding of behavioral and descriptive goals, objectives, and techniques used in treatment of communicative disorders. Fulfills the ASHA requirement of 25 observation hours prior to beginning clinical practice. Prerequisite: prior or concurrent enrollment in CDS 111 and medical clearance.

CDS 260. Introduction to Deaf and Hard of Hearing (2). Reviews history and philosophies contributing to present trends in education of the deaf. Introduces state and federal laws addressing services to the deaf and hard of hearing, as well as certification and evaluation requirements for teachers and interpreters. Includes a look at etiology of deafness, interventions, and devices for the deaf.

CDS 261. Signing Exact English I (2). Introduction to the theory and use of Signing Exact English (SEE) as a means of communication with the hearing impaired. Independent outside practice is necessary to facilitate skill.

CDS 270. American Sign Language I (3). Focuses on the use of American Sign Language as used by the American deaf community. Development of basic communication skills leads to basic conversational skills in ASL.

CDS 280. Educational Interpreting (2). Addresses the professional development, roles, ethics, confidentiality, and responsibilities of interpreters in educational settings. Includes interpreting principles. Covers ways to efficiently integrate the role of the interpreter into the educational system, as well as current issues in the field of educational interpreting. Prerequisites: CDS 240 and 260.

CDS 345. Refining Interpreting Techniques in SEE (3). Provides strategies for improving vital skills in expressive and receptive interpreting. Addresses such issues as interpreting signs, non-manual markers, and grammar, as well as application of real-time and prioritization for proper word and grammar choices in English. Also addresses interpretation of cultural information and effective public speaking. Prerequisites: CDS 240, 260, 330, 360, and 380.

CDS 491. Directed Study in Speech and Language Pathology or Audiology (1-3). Individual study or research on specific problems. Repeatable; instructor's consent must be obtained prior to enrollment.

CDS 492. Honors Research Project (1-3). Directed research project culminating in a poster presentation for the department research symposium. Prerequisite: CDS honors track program approval.

Courses for Graduate/Undergraduate Credit
CDS 515. Deaf Culture (3). Examines various cultural aspects of the deaf community. Presents the interrelationship of language and culture along with a study of socialization, norms, and values.

CDS 520. Poetry, Mime and Song (3). Non-verbal way of communication which forms an integral base for communication in American Sign Language. This course will emphasize the use and understanding of facial expression, pantomime and body language. Role play and acting out will be required as part of this class.

CDS 522. Deaf Heritage (3). Considers the history, nature, and uses of language and its effect upon human thought and action. Also covers the ideas and ideals expressed by deaf people over many periods of time through drama, philosophy, painting, and related areas.

CDS 540. Senior Seminar (2). An exploration of theories, principles, practices, and pitfalls of audiology and speech-language pathology emphasizing creating dynamic models for research interpretation, clinical interaction, and professional management. Examines the current educational, professional, and ethical issues in clinical practice.


CDS 625. Introductory Methods and Practicum in Communicative Disorders and Sciences (2). Techniques and methods for development of clinical skills in a supervised practicum in a supervised practicum setting. Clients with speech, language, and/or hearing disorders are the primary focus. Development of a philosophy of clinical processes includes procedures for therapy, writing behavior objectives and progress, and conducting parent/spouse/significant other conferences. Prerequisites: 25 clock hours of observation, grade of C or better in CDS 504, 306, 351, 416, 510 (may be concurrent), and 514; 2.750 cumulative and 3.000 GPA in the major; departmental application required one semester prior to enrollment; medical clearance and insurance.

CDS 784. Graduate Issues in Ethics and Practice in Communicative Disorders and Sciences (1). Provides graduate students as future practitioners a forum to be acquainted with
and to review professional clinical issues they may encounter in their careers. Covers issues such as professional ethics, parental rights, managed care, and credentialing. Individualized and group participation stresses need for professionals to deal competently with issues and to understand professional responsibility related to these topics.

CDS 705. Counseling in Communication Disorders (3). Provides information on the structure and conduct of interviews, basic counseling strategies, and consideration of the "helping" role as practiced by communication disorders professionals. Focuses on information supportive of developing effectiveness in these roles. Considers multicultural concerns.

CDS 740. Selected Topics in Communication Disorders and Sciences (1-3). Individual or group study in specialized areas of communicative disorders and sciences. Repeatable.

CDS 750. Workshop in Communicative Disorders and Sciences (1-4). Offered periodically on selected aspects of communicative disorders and sciences. Repeatable.

CDS 770. Communication Development and Disorders (3). Identifies communication deviations, differentiating disorders from developmental and/or cultural/linguistic differences. Evaluates potential impact of various communication disorders on academic performance of individuals. Considers strategies for facilitating development of children's communicative skills in educational settings.

Please see the Graduate Catalog for courses numbered 800 and above.

**Speech and Language Pathology**

Admission to courses is possible with a minimum grade of C in each stated prerequisite or its judged equivalent, or with departmental consent, unless otherwise specified in the course description.

**Upper-Division Courses**

CDS 300. Anatomy and Physiology of the Speech and Hearing Mechanisms (3). A study of the prenatal development and basic anatomy of the systems necessary for speech and hearing. Discusses the respiratory, phonatory, articulatory, and auditory mechanisms from a functional point of view. Prerequisite: CDS 111.

CDS 301. Language I: Normal Acquisition (3). Cross-listed as Ling. 304. The study of the acquisition of language in the child from birth to six years of age. Evaluation of various acquisition theories in the light of current psychological and linguistic thought. Emphasizes the development of phonology, morphology, syntax, semantics, and pragmatics. Prerequisite: CDS 111 or departmental consent.

CDS 302. Phonetics: Theory and Application (3). Cross-listed as Ling. 305. Introduction to the International Phonetic Alphabet and its use in transcribing the sounds of American English with emphasis on the major dialects. Study of physiological, acoustic, and perceptual specification of speech sounds and a survey of current phonetic theory and applications to speech improvement. Extensive practice in transcription of speech. Prerequisite prior to or concurrent enrollment in CDS 111 or departmental consent.

CDS 416. Language II: Introduction to Disorders (3). Introduces language disorders and children who do not acquire language typically. Studies language and behavioral characteristics of children with specific impairment, mental retardation, hearing disabilities, autism, hearing impairment, and acquired language disorders. Requires observation of clinical procedures with children who have language differences and disorders. Prerequisite: CDS 304 or instructor consent.

**Courses for Graduate/Undergraduate Credit**

CDS 501. Speech and Hearing Science (3). Examines elements in the chain of events that lead to human communication. Studies speech production and perception at physiological and acoustical levels, emphasizing acoustics. Prerequisite: CDS 300. CDS 306 or instructor consent.

CDS 510. Introduction to Diagnostics (3). Provides the principles underlying basic diagnostic processes for speech-language disorders across the life span. Teaches observation techniques, how to take case histories, beginning interview techniques, and how to administer and interpret formal and informal assessment measures. Requires observation of diagnostic procedures in the speech-language-hearing clinic. Prerequisites: CDS 416 and 514.

CDS 514. Speech-Sound Disorders (3). Discusses basic methods and procedures of identifying, assessing, analyzing, and remedying speech-sound disorders. Practice in phonetic transcription of clearly unintelligible speech samples. Prerequisite: CDS 306.

CDS 516. Language III: Introduction to Assessment and Intervention—Birth to School Age (3). Discussion of current language intervention strategies and programs for infants, toddlers, preschoolers, and school-age children, birth to age 6. Examination of the development of individual and family plans. Discussion of the multidimensional nature of language and culturally different language patterns. Requires observation of clinical intervention and a laboratory experience. Prerequisites: CDS 416 and 510.

CDS 519. Genetic and Organic Syndromes (3). Introduces human genetics and the impact of chromosomal and structural anomalies of communication disorders. Assessment and remediation of cleft palate speech. Prerequisite: CDS 300.

CDS 605. Neurology of Speech and Language I: Basic Processes (4). A consideration of basic neuropsychology necessary for obtaining an understanding of the representation of speech and language in the human central nervous system and of conditions resulting from neurological impairment. Prerequisite at least senior standing.

CDS 616A. The Science of Reading: Current Research in the Identification and Treatment of Dyslexia (3). Teaches students about the relationship between oral language and reading acquisition. Students will differentially diagnose and apply treatment protocols appropriately to individuals who present with specific reading disabilities. Exposes students to the latest research in the field. Role of the reading disorders specialist. Emphasizes research methodologies for evaluating reading and writing disabilities. Students will complete a research project in this course. Prerequisites: CDS 605, instructor consent.

Please see the Graduate Catalog for courses numbered 800 and above.

**Audiology**

Admission to courses is possible with a minimum grade of C in each stated prerequisite or its judged equivalent, or with departmental consent, unless otherwise specified in the course description.

**Lower-Division Course**

CDS 251. Auditory Development and Disorders (2). Introduces the etiology, nature, and symptomology of auditory disorders and pathologies. Prerequisite: CDS 111.

**Upper-Division Courses**

CDS 351. Introduction to Auditory Assessment (3). History and scope of the field. Surveys auditory threshold testing procedures, emittance audiometric interpretation. Prerequisite: CDS 251 or instructor consent.

CDS 450. Educational Audiology (2). Evaluation of historical approaches and current trends in the educational management of hearing impaired children. Presentation of techniques and resources to establish and maintain programs for hearing impaired children. Prerequisite: CDS 351.

**Courses for Graduate/Undergraduate Credit**

Please see the Graduate Catalog for courses numbered 800 and above.

Curriculum and Instruction (CI)
Undergraduate teacher education in curriculum and instruction is a five-to six-semester program built on the Guiding principles of the Conceptual Framework for Preparation of Teachers and Other School Personnel: (1) professionalism and reflection; (2) human development and diversity; (3) connection of teaching experiences and assessment; (4) technology; (5) content knowledge, pedagogical content knowledge, and alignment with standards; and (6) collaboration. The program includes general education, professional education and a content major. The professional education experience begins with an introduction to the profession and concludes with a full semester student teaching experience. Through intensive academic and field experience combined with systematic student reflection, the goal of this program is to produce teachers who are competent, collaborative, reflective professionals. Students enter the course work for the teacher education program during their sophomore year taking CI 271 and 272 concurrently (for music majors, MUS ED 271 and 272). Each core thereafter contains two to four classes which are to be taken concurrently before entering the next core. Criteria for entering the program and for student teaching, exit from student teaching, graduation, and licensure are clearly outlined by faculty and advisory groups and monitored at each of these transition points.

An old program began its last cohort in Fall 2003. Cohorts beginning teacher education in Spring 2004 take the new program courses. Students should see an advisor in the College of Education Office of Education Support Services to determine the appropriate program and checklist.

Teacher Education 1991-2003
Some of the following courses are part of the teacher education program which was implemented in 1991. The last cohort for this program takes courses for the sequence beginning Fall 2003. Those entering teacher education after Fall 2003 complete a set sequence of courses which are also listed in the section. The 1991-2003 courses are offered to meet the program requirements for several majors.

Teacher Education Fall 2003 forward
The Kansas State Department of Education changed the regulations for teacher licensure in 2002. In response to those changes, the teacher education program at WSU was modified to meet the new standards. Courses were identified, modified, and created to meet the new standards. Students entering teacher education Spring 2004 forward will utilize the newer courses.

Lower-Division Courses
CI 101. Introduction to the University (3). Helps students make connections with academic programs, faculty, staff, and other students; develop required academic and career competencies; and make sense of the higher education environment.
CI 170. Introduction to Library Research (1). Students learn to locate and retrieve information in both print and electronic formats, including the Internet, and learn to distinguish between scholarly research and non-scholarly publications.
CI 210. The Computer as a Learning Tool I (1). Provides computing skills necessary to succeed in the academic environment. Learn how to use computers and software to organize course work, outline and plan papers, write and edit text, search for information, compile and report data, and integrate data with text. Apply the course content in a computer lab under the supervision of the instructor.
CI 271. Introduction to the Profession (2). Students examine the nature of teaching; the roles of collaboration, reflective practice, critical thinking, problem solving, and inquiry. Students will be engaged in activities using all of these tools. Prerequisite: completion of basic skills requirements and concurrent enrollment in CI 272.
CI 272. Introduction to the Profession: Field Experience (1). Through systematic observation in schools, students examine the nature of teaching and the roles of teachers in the classroom. Prerequisites: completion of basic skills requirements and concurrent enrollment in CI 271.
CI 290. Directed Study (2-3).

Upper-Division Courses
CI 303. Clinical Field Experience: English as a Second Language (ESL) I (1-4). Students work with an ESL specialist to learn hands-on strategies for teaching students whose native language is not English. Includes observing the interaction between language and culture, how to use multi-level teaching strategies, how to adapt materials, how to assess and grade a variety of language proficiency levels, and how to best utilize available resources (bilingual paraprofessionals, parents, etc.) to maximize successful performance among this population. Prerequisites: acceptance into the Teacher Education Program and a Professional Development Site Program.
CI 304. Clinical Field Experience: English as a Second Language (ESL) II (1-4). An extension of CI 303. Prerequisites: acceptance into the Teacher Education Program and a Professional Development Site Program.
CI 305. Clinical Field Experience: Special Education I (1-4). Students learn how special education services are delivered in public schools; gain practical experiences interacting with public school students with various labels, abilities, and exceptionalities in a variety of settings; and become familiar with related terminology (PT, IEP, ECSE, ADHD, EMR, Child Study Team, etc.); the steps used to evaluate and place students with special needs, and approaches that work to maximize the success of all students. Prerequisites: acceptance into the Teacher Education Program and a Professional Development Site Program.
CI 306. Clinical Field Experience: Special Education II (1-4). An extension of CI 305. Prerequisites: acceptance into the Teacher Education Program and a Professional Development Site Program.
CI 307. Clinical Field Experience: Technology I (1-4). Students work with teachers using technology as a teaching, learning, and/or management tool; gain hands-on experience with computers (management systems, word processing, internet/e-mail, graphics); become familiar with basic terminology; and gain experience in the selection and use of appropriate commercial software to enhance the regular curriculum. Prerequisites: acceptance into the Teacher Education Program and a Professional Development Site Program.
CI 308. Clinical Field Experience: Technology II (1-4). An extension of CI 307. Prerequisites: acceptance into the Teacher Education Program and a Professional Development Site Program.
CI 309. Clinical Field Experience: Developmentally Appropriate Practices I (1-4). Students work with teachers delivering Developmentally Appropriate Practices in a classroom setting; gain experience in assessing developmental levels, personalizing instruction (developing centers, using learning contracts, structuring multi-level lessons), and designing and implementing appropriate instruction for each level. Prerequisites: acceptance into the Teacher Education Program and a Professional Development Site Program.
CI 310. Clinical Field Experience: Developmentally Appropriate Practices II (1-4). An extension of CI 309. Prerequisites: acceptance into the Teacher Education Program and a Professional Development Site Program.
CI 311. Introduction to Diversity Field Experience (1). To support the coursework in Core I, this field experience will provide students with opportunities to observe and interact with diverse populations in the context of classroom, community, and family settings. Prerequisites: admission to teacher education; concurrent enrollment in CI 320 and 321 and in CES 334.
CI 312. Block 2 Field Experience (1). Focuses on pupils' learning behaviors; methods of assessment, measurement, grading, curriculum goals and content as they influence classroom teaching, and teachers' methods of classroom management and instruction. Graded S/U only. Prerequisites: acceptance into teacher education, CI 311, 320 and 430, CES 334 and concurrent enrollment in CESF 433 and CI 328.
CI 316. Children's Literature (3). Students examine literature suitable for use with children in the preschool and elementary grades. Includes reading and examination of a wide selection of children's literature in all genres. Students
develop evaluative techniques for identifying materials and practice in the use of selection aids. Prerequisite: acceptance into teacher education.

CI 317. Literary Strategies in the Content Areas (2). Covers principles and strategies used in effective instruction, including vocabulary development and comprehension skills needed to more fully read to learn in content areas. Students will receive training to use the 6-trait Analytical Rating Guide for assessing writing, which is the method used to score the Kansas State Writing Assessment. Prerequisite: admission to teacher education.

CI 318. Middle Level/Secondary Literacy Practicum (1). Provides the educator with the opportunity to apply the strategies and skills introduced in CI 317. S/U Grading. Prerequisites: CI 311, 320, and 321; CES 334; concurrent enrollment in CI 317 and 427.

CI 319. Mathematical Investigations (2). Founded on the NCTM principles and standards for school mathematics focusing on process standards: problem solving, reasoning and proof, communication, connections, and multiple representations. Students should gain an active understanding of problem posing and problem solving in mathematics, as well as a familiarity with heuristics for problem solving. Course will also utilize appropriate technology-based cognitive tools. Prerequisite: MATH 301.

CI 320. Introduction to Diversity: Exceptionalities (2). Surveys the strengths and needs of learners with exceptional needs, including those with physical, sensory, and cognitive disabilities and those who exhibit gifts and talents. The effects of cultural differences and human developments on individuals with exceptional needs are explored. Current educational policy, practices, and services are reviewed. Prerequisites: admission to teacher education; concurrent enrollment in CI 311 and 321, and CES 334.

CI 321. Introduction to Diversity: Cultural Issues (2). Students will examine issues that impact providing an equitable education to all students. Disciplined inquiry and critical experience will encourage educators to be more responsive to cultural pluralism in society. Course content emphasizes diversity issues in education and development of a knowledge base to support culturally responsible pedagogy. Prerequisites: admission to teacher education; concurrent enrollment in CI 311 and 320, and CES 334.

CI 322. Instructional Strategies in Language Arts and Reading: Elementary School (5). Students examine the content and methods of instruction in the subject areas of language arts and reading and practice teach their subjects in a variety of settings. Prerequisites: acceptance into teacher education; CI 311, 316, 320, 328, 430; CES 334 and 433; concurrent enrollment in CI 413 for a practicum experience.

CI 328. Curriculum, Instruction, and Management (3). Students examine the nature, purpose, and development of curriculum in educational settings. They develop a knowledge and understanding of various curricular models and how these models influence instruction and the work of teachers.

Students acquire a knowledge and understanding of instruction: the decisions and processes by which teachers translate goals and objectives into classroom realities. Students become familiar with a wide range of practical strategies and techniques associated with various models of teaching, and learn to apply these strategies and techniques in actual and simulated teaching situations. Students also acquire practical knowledge of and experience with the development and use of a wide range of instructional media and technology, including the use of computers.

Students examine and learn to use various classroom management strategies in order to maintain control, promote a positive learning climate, and facilitate the achievement of instructional objectives. Prerequisites: acceptance into teacher education; CI 311, 320, 430; CES 334; concurrent enrollment in CES 433 and CI 312.

CI 402. ISAM: Elementary Subject Area, J-Social Studies (3), L-Language Arts/Reading (4), M-Mathematics (6), S-Science (6). Students are introduced to the instructional and assessment decisions and processes necessary for meeting curriculum goals and objectives in the K-6 classroom. Students become familiar with various management strategies for building a positive classroom environment in which all children can achieve at their full potential. Students will further understand instruction, assessment, and management in the context of teaching the specific subject area. Concurrent enrollment in the appropriate CI 411 is required. Prerequisites: CI 311, 320, 321, and 431A; CES 334.

CI 411. Pre-student Teaching: Elementary (2), J-Social Studies, L-Language Arts/Reading, M-Mathematics, S-Science. Designed to allow students to spend an extended period of time in an appropriate classroom setting working with a cooperating teacher to plan, implement, and assess instruction aligned with state and/or district standards. S/U grading. Prerequisites: CI 311, 317, 319, and 320; CES 334; concurrent enrollment in matching subject area in elementary BAM course.

CI 412. Pre-student Teaching: Middle Level (2), E-English/Language Arts, J-Social Studies, M-Mathematics, S-Science. Designed to allow students to spend an extended period of time in an appropriate classroom setting working with a cooperating teacher to plan, implement, and assess instruction aligned with state and/or district standards. S/U grading. Prerequisites: CI 421 and 422; CES 433; concurrent enrollment in appropriate CI 454 course.

CI 413. Pre-student Teaching: Secondary (2), E-English/Language Arts, J-Social Studies, M-Mathematics, S-Science. Designed to allow students to spend an extended period of time in an appropriate classroom setting working with a cooperating teacher to plan, implement, and assess instruction aligned with state and/or district standards. S/U grading. Prerequisites: CI 423 and 424; CES 433; concurrent enrollment in appropriate CI 454 course.

CI 421. Instructional Strategies, Assessment, and Management: Middle Level (3). Addresses concepts and skills related to classroom instruction, management, and assessment adaptations for specific students for middle-level education. Prerequisites: CI 317, 318, 427; concurrent enrollment in CI 422 and CES 433.

CI 422. Middle-Level Practicum (1). Designed to allow students to spend time in an appropriate classroom setting working with a cooperating teacher to plan, implement, and assess instruction aligned with state and/or district standards. S/U grading. Prerequisites: CI 317, 318, 427; concurrent enrollment in CI 421 and CES 433.

CI 423. Instructional Strategies, Assessment, and Management: Secondary Education (3). Addresses concepts and skills related to classroom instruction, management, assessment, and adaptations for specific students for secondary education. Prerequisites: CI 317, 318, 427; concurrent enrollment in CI 424 and CES 433.

CI 424. Secondary Education Practicum (1). Designed to allow students to spend time in an appropriate classroom setting working with a cooperating teacher to plan, implement, and assess instruction aligned with state and/or district standards. S/U grading. Prerequisites: CI 317, 318, 427; concurrent enrollment in CI 424 and CES 433.

CI 427. Philosophy, History, and Ethics of Education (3). Presents the major contemporary educational philosophies, their historical and social development of American education, and the ethical standards and legal issues influencing today. Some emphasis on the students' examination of the own educational philosophy and ethics. Prerequisites: admission to teacher education, concurrent enrollment in CI 430 and CI 430CI.

CI 430. Social/Multicultural Education (3). Examines social and multicultural foundations of education and school in a changing society. In addition students develop an appreciation for the changing ethnic and cultural characteristics of American schools. Prerequisites: admission to teacher education including successful completion of CI 271 and 272 and concurrent enrollment in CI 311 and 320 and CES 334.

CI 431 A-D. Seminar in Educational Leadership (1). This series of seminars is intended to help elementary education majors integrate information from all curricular areas. This integrative view is essential for effectively learning in elementary education and is a required element in the early to late childhood licensure program. Prerequisite: acceptance into teacher education.

CI 446. Student Teaching Seminar: Elementary (1). Students study and discuss experiences emerging from student teaching including the planning of school programs and assuming the responsibilities of a teacher. Graded CR/NC only. Prerequisite: acceptance into teacher education; CI 322, 402, and concurrent enrollment in CI 447 and 457.

CI 447. Student Teaching: Elementary (11). Designed to allow students to spend a semester in an appropriate school setting.
CI 448. Student Teaching in Early Childhood (4-6). This field experience provides half-time participation in preschool (three- and four-year-olds) under guidance of a master teacher and a college supervisor. Prerequisites: Cl 322, 412 and 406 and 9 semester hours of early childhood education. Permits may be waived for equivalent experience with departmental consent. See CI 447 for deadlines for filing an application to enroll in student teaching.

CI 448A: Student Teaching: Special Education, Adaptive Learning Needs (6). The primary purpose of student teaching is to provide evidence of the prospective teacher's readiness to engage in independent reflective practice in special education programs with students with adaptive learning needs in special education settings. Working with a cooperating teacher who serves students with adaptive learning needs, prospective teachers gradually assume responsibility for instruction (planning, delivery, and evaluation) for at least ten days. Prerequisites: CI 719, 720, 723, and 724; concurrent enrollment in the appropriate CI 447 course.

CI 448G. Student Teaching: Gifted (6). The primary purpose of student teaching is to provide evidence of the prospective teacher's readiness to engage in independent reflective practice in special education programs with students whose needs must be served through gifted curriculum. Working with a cooperating teacher who serves students with gifted curriculum needs, prospective teachers gradually assume responsibility for instruction (planning, delivery, and evaluation) for at least ten days. Prerequisites: CI 719, 722, 723, 757.

CI 451. Student Teaching in the Elementary School: Music (4). Prerequisites: acceptance into teacher education, CI 328, CI 433, methods in the subject area, and concurrent enrollment in CI 457 and student teaching seminar.


CI 454. Instructional Strategies, Assessment, Management: Middle Level/Secondary Subject Specific (3). E-English/Language Arts, H-History/Government, M-Mathematics, S-Sciences. Addresses concepts and skills related to classroom instruction, management, and assessment for specific subjects for secondary education. Prerequisites: CI 433, appropriate ISAM course, and concurrent enrollment in appropriate pre-student teaching or practice.

CI 455. Student Teaching Seminar: Secondary (1). E-English/Language Arts, H-History/Government, M-Mathematics, S-Sciences. Engages secondary students in reflective practice, emerging from the student teaching experience. Topics follow the full range of the WSU Teacher Education Program: human development and diversity, instructional planning, implementation, and assessment, use of technology, knowledge of subject matter and pedagogical content standards, and collaboration with all constituencies involved in the educational enterprise. Prerequisites: CI 413 and 454; concurrent enrollment in CI 471.

CI 456. Student Teaching Seminar: Middle Level (1). Engages middle-level educators in reflective experiences emerging from the student teaching experience. Topics follow the full range of the WSU Teacher Education Program: human development and diversity; instructional planning, implementation, and assessment; use of technology; knowledge of subject matter and pedagogical content standards; and collaboration with all constituencies involved in the educational enterprise. Prerequisites: the appropriate CI 454 courses, the appropriate CI 412 courses; concurrent enrollment in the appropriate student teaching practice.

CI 457. Senior Seminar (1). Students engage in reflective practice during their professional semester, reflecting on the social, cultural, philosophical, and psychological foundations of education as they relate to practice.

Students examine the role of the teacher as a professional: legal concepts related to employment, the role of the teacher in the educational system, ethics of the profession, communication skills as a staff member, planning for and scheduling aides and volunteers. Provides students with the opportunity to connect field experiences and reflective practice and the WSU College of Education Teacher Education Program. Prerequisites: acceptance into teacher education and concurrent enrollment in student teaching and student teaching seminar.

CI 459. Student Teaching in the Elementary School: Art (4). Prerequisites: acceptance into teacher education, CI 328 and CI 433, 2.500 GPA in the major, and concurrent enrollment in CI 457 and student teaching seminar.

CI 460. Student Teaching: Secondary Art (4). Prerequisites: acceptance into teacher education; CI 312, 328; CI 433, 2.500 GPA in the major, and concurrent enrollment in CI 457 and student teaching seminar.

CI 465. Student Teaching: Secondary English (4-15). Prerequisites: acceptance into teacher education; CI 413 and 454, 2.500 GPA in the major, and concurrent enrollment in CI 457 and student teaching seminar.

CI 466. Student Teaching: Secondary Foreign Language (4). Prerequisites: acceptance into teacher education, CI 312, 328, CI 433, 2.500 GPA in the major, and concurrent enrollment in CI 457 and student teaching seminar.

CI 468. Student Teaching: Secondary Social Studies (4-15). Prerequisites: acceptance into teacher education, CI 413 and 454, 2.500 GPA in the major, and concurrent enrollment in CI 457 and student teaching seminar.

CI 469. Student Teaching: Secondary Music (4). Prerequisites: acceptance into teacher education, methods in the subject area, CI 312 and 328, CI 433, 2.500 GPA in the major, and concurrent enrollment in CI 457 and student teaching seminar.

CI 471. Student Teaching: Secondary (11) E-English/Language Arts, J-History/Government, M-Mathematics, S-Sciences. Designed to allow secondary students to spend a semester in an appropriate classroom setting working with a cooperating teacher. The student and cooperating teacher, with the approval of the university supervisor, will devise a plan for the student teacher to assume full responsibility for the classroom(s) for a designated period of time during the semester. Prerequisites: CI 413 and 454, concurrent enrollment in CI 457.

CI 481. Cooperative Education (1-8). Provides the student a work-related placement that integrates theory with a planned and supervised professional experience designed to complement and enhance the student's academic program. Prerequisites: successful completion of 24 credit hours and a 2.500 GPA. Repeatable for credit. Offered C/NC.
CI 490. Individual Studies in Education (1-3).

Courses for Graduate/Undergraduate Credit

CI 501. Professional Writing for Educators (1-3). Helps students learn the writing skills, techniques, and typical procedures required for developing manuscripts for possible publication in the field of education. Addresses manuscripts for a variety of publication outlets.

CI 505. Science, Technology, and Society (1). Will investigate the relationships between science and technology, and the effects of both on our past and present society/culture.

CI 541. Desktop Publishing I (3). Desktop publishers control the entire publishing process, from creation and typesetting to printing and distribution, with equipment from the desktop. Word processing on the personal computer and laser printing are the two technological achievements that make possible a desktop publishing revolution. Stress type design, harmony, legibility, copy fitting, and layout fundamentals.

CI 542. Desktop Publishing II (3). An intermediate-level course which enhances, enriches, and develops further skills and techniques used in desktop publishing. Students select software packages in which they need additional depth toward master-level. Prerequisite: CI 541.

CI 615. Learning and Reading Strategies (3). Students are provided with the understanding of the development of learning and reading strategies and explore instructional approaches for guiding secondary students in those strategies and their use in content areas.

CI 616. Literature for Adolescents (3). Students participate in extensive reading of literature in all genres consistent with studies of adolescents; reading interests, abilities, and responses to literature. Prerequisite: acceptance into teacher education. Currently and previously certified teachers meet prerequisites.

CI 621. Instructional Strategies: Middle Level Education (3). Students examine the middle grades school as an organization that takes its design specifically from the analysis of 10-14 year olds, their characteristics and needs. Students examine many curricular and instructional alternatives for middle grades education and learning to manage change.

CI 654. Middle Level Strategies: Subject, E-English (3), J-Social Studies (3), M-Mathematics (3), S-Sciences (3). Acquaints educators with teaching techniques and assessment tools specifically tailored to the needs of students in the middle grades 5-8. It is intended for individuals holding elementary or secondary certification or license who are teaching or intend to teach in the middle grades. Prerequisite: teaching certificate or license.

CI 701. Foundations of Education (3). Students survey the various foundations areas, including philosophical, historical, social, and comparative. This course is prerequisite to subsequent foundations courses. Prerequisite: graduate standing.

CI 702. Introduction to Exceptional Children (3). A survey of the characteristics of exceptional learners, including the handicapped and the gifted. Presents service delivery models and current practices, fulfills certification requirements for teachers and serves as an introductory course in exceptionality for special education majors, administrators, and school psychologists. Prerequisite: bachelor's degree or departmental consent.

CI 703. Knowledge and Beliefs About Reading (3). Helps students understand the theories of reading development, individual student differences, the nature of reading difficulties, and principles of assessment. Includes the standards developed by the International Reading Association concerning knowledge and beliefs about reading as the learning outcomes. Prerequisite: graduate standing.

CI 706. Reflective Inquiry into Learning, Teaching, and Schools (5). Fosters the reflective thinking ability of teachers about the relationships among learning, teaching, and schools. Explores various frameworks of growth and development, learning theory, social and multicultural education, and philosophical foundations. Students are engaged in initial reading and investigation into individualized research topics. Prerequisites: admission to graduate school, CESP 721.

CI 708. Current Topics in Curriculum (1-3). Addresses a broad range of topical issues in curriculum development and implementation. A current issue will be covered under this course number, an umbrella number for a variety of topics/innovations in curriculum. Repeatable.

CI 709. Current Topics in Instruction (1-3). Addresses a broad range of topical issues in current practices for effective instruction. A current issue will be covered under this course number, an umbrella number for a variety of topics/innovations in instructional practices. Repeatable.

CI 710. Current Topics in Classroom Management (1-3). Addresses a broad range of topical issues in current classroom management practices. A current issue will be covered under this course number, an umbrella number for a variety of topics/innovations in classroom management. Repeatable.

CI 711. Multicultural Education (3). Emphasizes students understanding multiple perspectives in a global society and developing multiple modalities, culturally aware curriculum experiences. Provides disciplined inquiry and critical experience “to become more responsive to the human condition, cultural integrity, and cultural pluralism in society” (NCATE, 1982, p. 14). Emphasizes diversity issues in education and the development of a knowledge base to support culturally responsible pedagogy. Prerequisite: graduate standing or departmental consent.

CI 712. Environmental Education (3). Provides basic information on the environmental issues which can be addressed in the classroom. Become familiar with a wide range of resources for both teachers and their students. Stresses applying environmental issues to everyday teaching.

CI 713. Agriculture in the Classroom (2). K-12 teacher learn about agriculture and develop ways to integrate the information into their everyday teaching. Includes presentations, field trips, and projects showing how the food chain industry teaches every person's life. Teachers learn to integrate agricultural information into existing teaching basic subjects like math, language arts, social studies, science, and art.

CI 714. Reading Instruction and Assessment (4). Helps students create instructional environments; teaches phonemic awareness; word identification (including phonics), vocabulary-building skills; strategies for comprehension and the construction of meaning; and study strategies; and assesses student performance and progress. Prerequisite: CI 705 or departmental consent.

CI 716. Introduction to School Librarianship (3). Introduces the role of the library and the librarian in the school. Studies issues affecting school libraries and librarians. Prerequisites: teacher certification and acceptance into graduate study in curriculum and instruction or departmental consent.

CI 717. Qualitative Inquiry in Education (3). Through readings and guided experiences in acts of inquiry in qualitative research, students acquire the disposition of a reflective inquirer, becoming familiar with the knowledge base for qualitative inquiry. Prerequisite: instructor's consent.

CI 718. Acts of Qualitative Inquiry in Education (3). Through guided experiences and fieldwork in acts of inquiry in qualitative research, graduate students develop and employ the skills of the reflective, qualitative inquirer. Prerequisite: CI 717 or departmental or instructor's consent.

CI 723. Analysis and Management of Behavior (3). Covers behavior management strategies specifically needed by classroom teachers to affect academic and social outcomes. Addresses technical, theoretical, and practical aspects of applied behavior analysis. Prerequisites: CI 520 or CI 430 or CI 431 or equivalent.

CI 728. Methods I: Academic and Cognitive Skills, Mild Exceptionalities (3). Introduces students to specific techniques for improving the cognitive skills and academic performance of students with mild exceptionalities (learning disabilities, emotional disturbances, behavior disorders, or mental retardation). Includes competencies for (a) teaching reading, cognitive, and academic skills as well as content to students with exceptional learning needs; (b) basing instructional decisions on data; (c) determining where to begin instruction for students with special needs; (d) instructional management and monitoring strategies; and (e) strategies for working with students with exceptional learning needs in general and special education settings. Prerequisites: CI 350 or 707, CI 430 or 711, admission to the Teacher Education Program or to the graduate program in special education at a non-degree-seeking student, or instructor's consent.

CI 725. Improvement of Instruction in Science (3). Assists teachers in improving the way they teach science and the way
CI 726. Information Technologies in the School Library I (3). Introduces a wide range of information technology applications, including word processing, database, spreadsheet, and presentation software. Emphasis is on using these applications in a library setting. Covers the use of the Internet, options for filtering Internet content, Internet user policies, and basic web page design. Includes basic computer and software troubleshooting, installation and removal of software, and computer security issues. Prerequisite: Windows 95 or equivalent skills. CI 716.

CI 727. Information Technologies in the School Library II (3). Introduces a wide range of technologies and equipment in the school library. Covers selection and purchase as well as basic maintenance and repair of equipment. Includes the basics of local area network design. Presents methods of using technology with students including CD-ROM, laser disc, and video. Students learn the basics of media production and strategies for teaching media production to students. Also looks at the future of technology in school libraries. Prerequisite: CI 726.

CI 728. Organization of Information Resources (3). Introduces the organization of information resources in the school library. Includes the organization and cataloging of print and non-print materials in US MARC format, how to assign Dewey Decimal Classification numbers and subject headings, how to identify the sources for copy cataloging records, and the importance of authority control in a library. Prerequisites: CI 726 and 727.

CI 729. Reference Materials (3). Provides skills in evaluating and using indexes, bibliographies, encyclopedias, dictionaries, and other print and electronic media, including the Internet. Prerequisite: CI 716.

CI 730. Curriculum in the School Library (3). Gives students knowledge about the role of the school library in curriculum. Addresses how the school library media specialist teaches information literacy to students and staff. Prerequisite: CI 716.

CI 731. The Reflective and Inquiring Educator (3). Builds a foundation for reflective thinking about (a) the role of the educational practitioner; (b) educational issues in curriculum, instruction, and change theory; and (c) principles and application of teacher-based action research. Prerequisite: admission to MEd in curriculum and instruction.

CI 732. Library Management and Design (3). Provides information and examples on ways to effectively manage a library. Covers budgeting, grants, policies, procedures, and collection development/selecting deselection. Prerequisite: CI 716, 726, 728.

CI 734. Literature-Based Reading Programs (3). Students examine specific methods for developing a literature program with children (preschool-elementary years) emphasizing applying literature and media through the reading environment, language arts, the arts, and creative expression. Prerequisites: CI 705 and graduate standing.

CI 735. Introduction to the Gifted (3). Students are introduced to the historical and socio-educational perspectives germane to gifted education. Explores issues related to the field of gifted education such as theories of intelligence; identification, delivery modes, characteristics and learning needs, special populations, curriculum differentiation, and underachievement. Prerequisite: graduate standing.

CI 736. Organizing a Reading Program (3). Helps students communicate information about reading to various groups; develop literacy curricula, participate in or lead professional development programs, participate in or conduct research, collaborate on evaluating and/or literacy practitioners, communicate assessment results, and engage in professional activities.

CI 740. Introduction to Early Childhood Special Education (3). Students are provided a basic introduction to the emerging field of early intervention for children with disabilities and their families. Prerequisites: CESP 728 and CI 761.

CI 741. Early Childhood Special Education Methods: Preschool (3). Provides specific techniques needed to teach children with exceptionalities in preschool settings. Includes competencies within early childhood special education for (a) legal foundations (IDEA, Part B); (b) characteristics of learners; (c) assessment, diagnosis, and evaluation; (d) report and Individualized Education Plan (IEP) development; (e) instructional content and management strategies; (f) instructional content and practice; (g) planning and managing the teaching and learning environment; (h) managing student behavior and social interaction skills; (i) collaborating and forming partnerships with family members and other professionals; (j) professional and ethical practices; and (k) strategies for working with students with exceptional learning needs in general and special education preschool settings. Prerequisites: CI 320 or 761. CI 740 admission to the Teacher Education Program or to the special ed graduate program as a non-degree student, or instructor's consent.

CI 743. Alternative Certification Internship I (3). In the alternative teacher certification program, this internship replaces the required student teaching assignment for the purposes of certification. Credit is given for a combination of (a) the teaching experience and (b) attendance and the completion of assignments in the scheduled seminars. Prerequisites: employment by a school district and completion of course work for provisional teacher certification.

CI 744. Alternative Certification Internship II (3). Continuation of CI 743. Prerequisites: employment by a school district and completion of course work for provisional teacher certification.

CI 745. Alternative Certification Internship III and IV (3). Continuation of CI 743 and 744. Prerequisites: employment by a school district, CI 743 and 744, and admission to MEd in CI.

CI 747L. Practicum: ESL/Bilingual Education (K-12 or adult) (3). Provides full-time participation in an ESL class supervised by a master teacher and a University professor. Focuses on the application of teaching methods for ESL/bilingual learners, the appropriate use of formal and informal assessment procedures, the development of cross-cultural teaching strategies, and the integration of language with content-area instruction. Prerequisites: CI 481 or 711, CI 755U, CDS 679.

CI 748. Alternative Certification Internship III (3). Prerequisites: employment by a school district and completion of course work for provisional teacher certification.

CI 749. Alternative Certification Internship IV (3). Prerequisites: employment by a school district and completion of course work for provisional teacher certification.

CI 750. Workshops in Education (1-4).

CI 751, 752, 753, 754, or 755. Special Studies in Education (1-3). For elementary and secondary school teachers. Repeatable with advisor's consent. Prerequisite: teacher certification or departmental consent.

CI 760. Parent Education (3). An introduction to working with parents of preschool and elementary children and an analysis of informal and informal approaches emphasizing the teacher's role in developing these procedures.

CI 761. Early Childhood Education (3). Students examine programs, problems, and philosophy of educating children in the preschool years. Prerequisite: admission to the Teacher Education Program.

CI 764. Instructional Strategies: Preschool Education (3). Students examine the content and methods of instruction in preschools and observe teach in a variety of settings. Students study teaching methods for preschool children and prepare materials to enhance the learning experiences of these children. Prerequisite: CI 761.

CI 765. How Computers Work (1). The basics of how computers process, store, and retrieve data. All educators seeking a computer specialization should take this course early in their sequence of course work toward that specialization. Educators who want to know more about computers gain a basic knowledge base that will be helpful in other computer-related courses.

CI 771. Technology in the Classroom (2). Introduces classroom teachers to new technologies and their use in the classroom. Uses field trips and speakers to expose teachers to technologies in specific technology. Includes telecommunications, multimedia applications, integrated media, and new hardware and operating systems. Prerequisite: CI 770M or CI 770P or instructor's consent.

CI 772. Integrating Technology into the Curriculum (3). Covers skills and strategies needed for classroom teachers to use computers and computer-related technology to meet cur-
ricultural goals and professional standards. Includes professional standards, classroom management, choosing appropriate software, assessment, teaching strategies and activities, and professional resources. A project-based course: educators develop materials and strategies to assist in integrating available technology into the curriculum.

CI 774. Teaching English as a Second Language (3). Examines current objectives for teaching English as a second language and a variety of methods and specialized techniques for obtaining these objectives. Students will develop knowledge of criteria for evaluating curricula, teaching materials and professional literature related to teaching English as a second language and Bilingual Education. Students will examine methods of selecting and adapting curricular ways to enhance the curriculum through developing activation plans for involving parent and community resources in the ESOL/BE curriculum. This course is designed to meet the standards required for ESL/BE endorsement or certification in TESOL.

CI 775. Applied Linguistics/ESL/Bilingual Teacher(s) (3). Examines a broad picture of human language: what it is, what it is used for, and how it works. Enables students to recognize uninformative statements about language, to examine personal beliefs and attitudes about language, and to learn to use basic tools to analyze language in particular as it relates to teaching English as a second language. Provides an introduction to most of the sub-fields of linguistics (e.g., phonetics, morphology, semantics, syntax, etc.).

CI 776. Second Language Acquisition (3). This course will survey nativist, environmental, and interactionists theories of second-language acquisition. This course will cover a broad introduction to the scope of second-language acquisition and bilingualism by reviewing substantive research findings as well as cases for differential success among second-language learners. This course will include discussions of readings, collaborative activities, and presentations involving application of theory to teaching practice.

CI 777. ESL Assessment (9). Examines legal, theoretical, and practical considerations in the ESL/BE student. Explores a variety of established principles of language assessment, procedures for identification of language-minority students, and applications for these procedures and techniques. Covers level placement, monitoring of language development, and exit criteria for language programs. Introduces the desirable qualities of tests: validity, reliability, practicality, and beneficial feedback.

CI 780C. Computers and the Young Child (1). Learn to use the computer with children in preschool through second grade. Appropriate software is evaluated and used in planning for instruction.

CI 780L. Computers in Language Arts (2). Enables classroom teachers to utilize computers and related technology in the language arts curriculum. Appropriate software is evaluated and used in planning for instruction.

CI 780M. Computers in the Math Classroom (1). Focuses on the integration of software programs designed for middle and high school mathematics classrooms. Explore software and instructional activities which support math at the middle and high school levels using Apple Ile and Macintosh systems.

CI 780S. Computers in Science (2). Introduces classroom teachers to application of computer technology, CD-ROM, and laserdisc technology in the science curriculum. Appropriate software is evaluated and used in planning for instruction.

CI 781. Cooperative Education (1-4). Provides the student with a work-related placement that integrates theory with a planned and supervised professional experience designed to complement and enhance the student's academic program.

CI 782. Internet in the Classroom (3). This project-based course requires students to identify Internet resources that best meet classroom curricular goals and plan instruction using those resources. This course assumes all enrolled students have basic computing skills prior to enrolling in this class and access to a computer connected to the Internet.

CI 783. Special Projects in Internet (1). Explore and expand your knowledge of the Internet. Complete a special project designed to utilize knowledge and experiences developed in CI 782. Students and instructor establish goals and activities appropriate for graduate-level study and applicable in an educational setting. Prerequisite: CI 782 or instructor's consent.

CI 786. Beginning Algorithms and Problem Solving (2). Introduces basic algorithms and principles of computer programming.

CI 790. Special Problems in Education (1-4). Directed reading, activity, or research under supervision of a graduate instructor. Prerequisite: departmental consent.

CI 791. Practicum: Methods of Computer-Related Instruction (2). Investigate teaching and learning strategies related to the use of computers in the classroom. Includes design and management of instructional activities related to software integration, programming, and the development and assessment of computer-related student competencies. Students will be supervised in the field while they apply methods and principles of computer-related instruction. Prerequisite: CI 772 or departmental consent.

CI 793. Multimedia in the Classroom (2). Prepares educators to plan and create multimedia presentations. Includes digitizing audio and video, storyboards, scripting, appropriate hardware, and authoring software.

Please see the Graduate Catalog for courses numbered 800 and above.

Kinesiology and Sport Studies (KSS)

The mission of the Department of Kinesiology and Sport Studies is to prepare students for careers in exercise science, physical education, and sport administration, as well as to provide the University community with physical activity experiences. Students are provided with quality instruction and practical experiences by faculty who engage in intellectual inquiry and service to the community and profession. The following degrees are offered: a BA degree in sport administration, a BA degree in physical education: K-12, and a BA degree in exercise science. Each degree area provides students with a quality education leading to numerous career opportunities.

Physical Education: PreK-12

Wichita State's PreK-12 physical education teacher preparation degree program offers a quality education for students desiring a career teaching physical education. The curriculum provides students with a scientific and practical background upon which to base teaching content and methods. The PreK-12 program addresses the importance of a developmentally appropriate curriculum based on the national physical education standards. Students are provided a minimum of 45 contact hours with K-12 students during pre-service teaching experiences.

Exercise Science

Wichita State's exercise science program is for those interested in careers involving exercise physiology, physical therapy, health promotion, clinical exercise-related fields, rehabilitation, medicine, biology of exercise, research, and academia in graduate education in health-related fields. The department also has a comprehensive human performance laboratory that is available for students completing exercises science coursework.

Sport Administration

Wichita State's sport administration degree provides students with a quality curriculum including courses such as sport marketing, sport law, sport management, and sport facility management. Students pursuing the sport administration degree program complete a two-semester internship requirement (or its equivalent). Graduates of this program work in a variety of sport settings including intercollegiate sports, minor league professional sports, major league professional sports, parks and recreation departments, and in the health club/business industry.

Minor in Exercise Science

The exercise science minor consists of 23 credit hours including the following courses: KSS 201E, 328, 331, 441, 470, and 530; KSS 153I; and a prerequisite course in Anatomy and Physiology. This program provides minimum knowledge for careers in the fitness industry and for certification examinations.

Minor in Sport Administration

The sport administration minor consists of 18 credit hours including the following courses: KSS 380, 526, 560, and 561; and two of the following three courses: KSS 112, 520, 525, and 528. This program provides minimum knowledge for careers in the athletic/sport industry.

Physical Activity Service Program

The Physical Education Activity Program represents a variety of 1-credit-hour courses in areas including team activities, individual activities, combatives, fitness activities, and sport.
Activity courses in the service program may be repeated for credit. Students should consult their college requirements to ascertain whether the activity courses will count toward degree requirements.

Lower-Division Courses

KSS 111. Foundations in Physical Education, Sport, and Fitness (3). Introduction to the history, principles, philosophy, and foundations of physical education with concomitant outcomes for modern society.

KSS 112. Introduction to Sport Administration (3). Introduction to the discipline of sport administration and its vast array of career opportunities (since the sport industry represents the eleventh largest industry in the U.S.).

KSS 113. Introduction to Exercise Science (3). Designed to provide an overview of the basic physiological, neurological and biomechanical processes associated with physical activity and human movement.

KSS 117. Community First Aid and Community CPR (2). Community first aid and community cardiopulmonary resuscitation with certification by the American Red Cross.

KSS 124. Health and Wellness Concepts (2). Designed to help students gain knowledge and understanding of a variety of wellness concepts for their personal use as well as their professional development. Students will be able to process the information and use it to make behavioral changes that will have a positive impact on their lives. Emphasizing the importance of self-responsibility, the students will be required to actively participate in wellness and physical activity self-assessments and evaluations as well as learn to assist others in the development of their health and wellness goals.

KSS 125. Health/Wellness Concepts (1). Teaches health and wellness concepts to promote living a positive, healthy life. Covers behavior-change theory to maximize the chances that behavior changes stimulated during the class will become permanent.

KSS 150. Workshop (1-3).

KSS 152. Special Studies in Health, Physical Education, and Recreation (1-3). Group activities in selected areas of physical education, exercise science, or sport administration. Offered Cr/Nc only.

KSS 201A. Introduction to Physical Activity (2). Introduces basic skills and strategies of individual sports/activities. Prerequisite: K-12 physical education major.

KSS 201B. Introduction to Physical Activity (2). Introduces activities focusing on life adventures. Prerequisite: K-12 physical education major.

KSS 201C. Introduction to Physical Activity (2). Introduces fundamental motor patterns and movement education. Prerequisite: K-12 physical education major.

Upper-Division Courses

KSS 201D. Introduction to Physical Activity (2). Introduces basic skills and strategies of team sports. Prerequisite: K-12 physical education major.

KSS 201E. Introduction to Physical Activity (2). Introduces activities appropriate for students majoring in exercise science or K-12. Focuses on basic concepts of exercise physiology and fitness instruction. Prerequisite: KSS major.

KSS 210. Practicum—Sport Administration (3). Integrates course work with planned and supervised professional experiences for a minimum of 15 hours per week. Prerequisite: KSS 112.


KSS 270. Motor Learning (3). The introduction and examination of the physiological and psychological factors that affect the acquisition of motor skills.

KSS 306. Water Safety Instructor (2). 1R, 2L. Meets American Red Cross standards for certification in Emergency Water Safety and Water Safety Instructor Training. Students must show proficiency at the American Red Cross Swimmer skill level within three weeks after enrolling. Prerequisite: KSS 107A or departmental consent.

KSS 310. Methods in Physical Education (3). Presentation and participation in methods of teaching physical education, emphasizing techniques, skills, organization of activities, and classroom procedures. Prerequisites: KSS 270 and 201A, B, C, D, admission to teacher education, and completion of Preprofessional Block.

KSS 311. Physical Education in Middle School (3). Methods, techniques, teaching progression, analysis, and skill development of the Physical Focus curriculum. Requires 15 hours of field experiences and observation in selected middle schools. Prerequisite: Block I of teacher education program.

KSS 312. Physical Education in High School (3). Methods, techniques, teaching progression, analysis, and skill development of the Physical Focus curriculum for high school. Requires 15 hours of field experience and observation in selected high schools. Prerequisite: Block I of teacher education program.


KSS 327. Physical Education in the Intermediate Grades (3). 3R, 2L. Final course in the series for emphasis in elementary school physical education. Assists students in developing the necessary skills to teach physical education in grades 3-6. Includes 15 hours in laboratory experiences with intermediate grade school children. Prerequisite: Block I of teacher education program.

KSS 328. Kinesiology and Biomechanics (3). The understanding of the kinesiologies and mechanisms of human motion with respect to performance of sport activities. Prerequisite: KSS 229 or equivalent.

KSS 331. Care and Prevention of Athletic Injuries (3). For prospective coaches, athletic trainers, health and physical educators—to aid in the recognition, evaluation, and care of athletic injuries. Techniques in taping, prevention, and rehabilitation of injuries. Prerequisite: KSS 229 or equivalent.

KSS 332. Technology for K-12 Physical Educators (3). Provides knowledge, skills, and tools to effectively implement technology into health and physical education. Examines computer technology as well as technology associated with the HIPER disciplines. Students have opportunities for practical applications of technological skills.

KSS 338. Theory and Organization of Baseball (2). The theory, organization, responsibilities, and techniques of coaching baseball.

KSS 360. Adapted Physical Education (3). Assists students in developing the necessary skills for the implementation of enjoyable physical activity into the lives of persons impaired, disabled, or handicapped. In addition to classroom work, students participate in at least two hours per week in observations and physical activity with persons impaired, disabled, or handicapped. Prerequisite: KSS 229 or equivalent, admission to teacher education, and completion of Preprofessional Block.

KSS 380. Organization and Administration of Sport (3). Discusses the fundamental aspects of a management within any sport-related entity. Addresses management, marketing, facility management, human resources, legal issues, budgeting/finance, purchasing, and communication.

KSS 425. Methods in Physical Education and Health (2). Methods of teaching physical education, health, and wellness. Acquaints elementary and middle school classroom majors with organizational skills and instructional materials. Not open to students in physical education. Prerequisite: admission to teacher education.


KSS 431. Rehabilitation and Therapeutic Modality Use for Athletic Injuries (3). Principles in planning and implementing rehabilitation programs for injured athletes, emphasizing application of contemporary therapeutic exercise techniques.
Advanced study of the use of hydrotherapeutic and electrotherapeutic agents in the rehabilitation of athletic injuries and the use and application of various modalities in the treatment of athletic injuries.


KSS 440. Concepts in the Prescription of Exercise (3). An introduction of techniques appropriate for screening, health appraisal, and fitness assessment as required for prescribing exercise programs for persons without disease or with controlled disease, and provision for practical experience in a supervised setting outside the class. Prerequisite: KSS 201E and 530 or equivalent.

KSS 465. Psychology of Sport (3). Explores the observations, descriptions, and explanations of various psychological and physiological factors that influence diverse aspects of sport and physical activity. Prerequisites: KSS 112.

KSS 470. Fitness Practicum (3). Application of theory to practice by assisting in various activities associated with the field of exercise science (i.e., fitness instruction, weight management, weight training, athletic training, etc.) a minimum of 15 hours per week. Prerequisites: KSS 117, 201E, 530; a 2.50 GPA; or departmental consent.

KSS 471. Student Teaching—Physical Education—Secondary (4). Prerequisite: completion of all courses in major field and Block III of teacher education program.

KSS 472. Student Teaching—Physical Education—Elementary (4). Application for student teaching must be made to the coordinator of laboratory experiences prior to the semester in which the student intends to enroll. The assignment for student teaching begins with the opening of the public schools, and the student is expected to follow the public school calendar for a semester. Prerequisite: completion of all classes in the major field and Block III of teacher education program.

KSS 473. Student Teaching Seminar (1). Weekly seminar evaluates strategies for managing classrooms and assesses instructional strategies. Students also discuss the employment process and the requirements for teacher certification. Prerequisite: concurrent enrollment in KSS 471 and 472.

KSS 475. Sport in American Culture (3). A basic understanding of the developments, trends, and social processes that explain the widely popular sporting experiences in society today. Prerequisites: KSS 112.

KSS 481. Cooperative Education (4). Allows students to participate in the Cooperative Education Program. Offered Cr/Ncr only. Prerequisites: 2.50 GPA and admission to College of Education.

Courses for Graduate/Undergraduate Credit

KSS 500. Health Education K-12 (3). Provides practical applications of theoretical models of change for the health field. Discusses health problems, strategies for affecting change, and outcome assessment. Develops selected instructional materials. Two field trips to prescheduled local health agencies. Additional projects required for graduate students. Prerequisite: Block I of teacher education program.

KSS 515. Rhythmic Activities in K-12 (3). Teaches methodology and curricular content of rhythmic activities appropriate for elementary and middle school children. Prerequisite: Block I of teacher education program.

KSS 520. Sport Tournament and Event Management (3). A detailed account of the structural designs, mathematical calculations, scheduling principles, procedures, and thought processes involved in organizing and conducting sport tournaments and events. Prerequisite: KSS 112.

KSS 525. Sport Facility Management (3). Focuses on various aspects of facility management, such as mission development, funding and budget, site selection/planning/design, floor surfaces, risk management, equipment purchase and maintenance, and personnel management. Prerequisite: KSS 112.

KSS 526. Sport Public Relations (3). Focuses on the application of public relations principles in a sport-related setting. Significant attention to media relations with specific topics including media guides and publications, handling statistics, and crisis management. Prerequisite: KSS 112.

KSS 528. Sport Finance (3). Introduces the sport administration student to financial challenges, financial statements, financial planning, and related issues within sport organizations. Prerequisites: KSS 112.

KSS 530. Physiology of Exercise (3). SR, SL. Provides a working knowledge of basic principles as it relates to exercise. Prerequisite: KSS 229 or equivalent.

KSS 540. Seminar in Sport Administration (3). Integrates the knowledge base of sport and business as it applies to the practical setting. Prerequisites: 2.50 GPA, admission to College of Education, and senior standing.

KSS 543. Organization and Administration of Exercise Science (3). Introduces the organizational and administrative issues existing in the field of exercise science. Addresses the concepts and issues involved with administering and organizing facilities such as corporate-sponsored wellness programs, sports medicine clinics, exercise laboratories, athletic training departments, physical therapy centers, cardiopulmonary rehabilitation clinics, and health and fitness centers.

KSS 544. Organization and Administration of Physical Education Programs (3). The organizational and administrative problems of physical education programs and the management of the physical plant.

KSS 547A. Internship in Sport Administration (3). Culminating activity for students in sport administration. Students spend the equivalent of full-time employment in an appropriate agency for a total of at least 250 hours. Prerequisites: 90 hours of accumulated course credit, 2.50 GPA overall, and internship coordinator's permission.

KSS 547B. Internship in Sport Administration (0). Second internship experience for students in sport administration; takes place in a different setting than KSS 547A. Students spend the equivalent of full-time employment in an appropriate agency for a total of at least 250 hours. Prerequisites: KSS 547A, 2.50 GPA overall and in major, senior standing in College of Education, advisor's approval.

KSS 557. Internship in Exercise Science (3). Culminating activity for students completing the BA in exercise science. Students spend the equivalent of full-time employment in an appropriate agency for one full semester. Prerequisites: senior standing, departmental consent, KSS 470, 2.50 minimum GPA overall and for major, admission to College of Education.

KSS 560. Legal Aspects of Sport and Physical Activity (3). Focuses on the concepts of tort law, constitutional law, and statutory law as they relate to the sport professions. Emphasizes liability-related issues as they impact sport administrators, exercise professionals, and teachers/coaches of physical activity. Prerequisites: KSS 112.

KSS 565. Marketing Sport and Physical Activity Programs (3). Introduces concepts and tools used to market sport and physical activity. Emphasizes marketing strategies that are applicable to the sport administrator, teacher/coach, and exercise professional. Prerequisite: KSS 112.

KSS 590. Independent Study (1-3). Prerequisite: departmental consent.

KSS 711. Structuring and Scheduling Sports Tournaments (3). Involves the structural design, scheduling processes, and mathematics of sports tournaments, elimination, placement, and round robin formats.

KSS 720. Teaching Strategies (3). Non-traditional and innovative techniques and strategies for increasing student participation and motivation in the physical education lessor. Prerequisites: senior standing, graduate standing, or instructor's consent.

KSS 726. Communication in Sport (3). Since a sport organization's success is largely dependent on the degree to which it can effectively communicate with key constituents, this class addresses a variety of communication-related topics, including public relations management, image, media relations, and community relations.

KSS 732. Introduction to ECGs (3). Develops a foundation in electrocardiography. Includes ECG leads, rate and rhythm, ECG complexes and intervals, conduction disturbances, arrhythmias, ECG identification of myocardial infarction location, and drug effects on the ECG. Prerequisites: KSS 201 and senior standing, full standing in the Graduate School, or instructor's consent.
KSS 750. Workshop in Education (1-3).

KSS 752. Special Studies in Kinesiology and Sport Studies (1-3). Group study in a preselected area of health, physical education, or recreation. Repeatable for credit with departmental consent. Prerequisite: departmental consent.

KSS 760. Sport in Society (3). Impact of sports on American culture, with focus on competition, economics, mythology, education, religion, ethics, professional sports, sports and minorities.

KSS 762. Tests and Measurement in Human Performance (3). Introduces testing, measurement, and evaluation techniques used in human performance and related fields. Students learn to conduct valid, reliable, and objective laboratory/field testing, measurement, and evaluation procedures commonly used in human performance settings. Prerequisites: KSS 111, 211, 229, 328, and 530.


KSS 780. Physical Dimensions of Aging (3). Covers the complex physiological changes that accompany advancing age and how exercise affects the aging process. Includes an appreciation for how functional consequences affect mental and social dimensions of life. Emphasizes factors associated with the preparation, implementation, and evaluation of research projects involving elderly populations.

KSS 781. Cooperative Education Field Study (1-8). Provides the graduate student with a field placement which integrates theory with a planned and supervised professional experience designed to complement and enhance the student's academic program. Individualized programs must be formulated in consultation with appropriate graduate faculty. The Plan of Study for a graduate degree-bound student must be filed before approval of enrollment for cooperative education graduate credit. May be repeatable for credit with a limit of 8 hours counting toward the graduate degree. Offered Cr/NC only.

KSS 790. Applied Exercise Physiology (3). Focuses on the applied aspect of exercise physiology. Includes the areas of environmental influences on performance, optimizing performance through training, nutrition, and ergogenic aids; training and performance of the adolescent athlete and of elderly, and the differences in performance and training between genders. Prerequisite: KSS 530 or 830.

KSS 795. Physiology of Athletic Performance (3). Explores the physiological responses involved with various athletic performances, including sports requiring endurance, speed, and power. Includes such areas of physiological study as metabolic energy systems, cardiovascular and skeletal muscle adaptation, muscle fiber type differentiation, and responses to extreme environmental conditions. Discovers parameters for performance and establishes guidelines for training at high levels of performance.

KSS 796. Motor Integration (3). Examines the principles of motor skill acquisition, human motor performance, and motor control. Emphasizes the use of transfer, memory, practice schedules, motivation, knowledge of results, neuromotor functioning, and differences in motor abilities that are involved in motor skill performance. Prerequisite: graduate standing at WSU and KSS 460 or instructor consent.

Please see the Graduate Catalog for courses numbered 800 and above.

Music Education
See School of Music section, College of Fine Arts.

The following abbreviations are used in the course descriptions: R stands for lecture and L for laboratory. For example, 4R:2L means 4 hours of lecture and 2 hours of lab.
College of Engineering

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www.engr.wichita.edu

Modern technological developments in engineering have brought about considerable change in the College of Engineering's curriculum at Wichita State University. The curriculum provides a vigorous, challenging experience through a broad spectrum of fundamental technical knowledge as well as courses in humanities, social sciences, communications, mathematics, and physical sciences. This balance in the curriculum prepares students for professional positions in the scientific-industrial community after the bachelor's degree or allows them to continue in graduate studies for a more active participation in research and advanced study.

The College of Engineering is organized into four degree-granting departments: aerospace, electrical and computer, industrial and manufacturing, and mechanical.

The programs in engineering are offered in daytime and evening classes, and the courses are the same whether they are taught in the day or at night.

Degrees Offered
Undergraduate
The Bachelor of Science degree programs in aerospace, computer, electrical, industrial, manufacturing, and mechanical engineering are accredited by the Engineering Accreditation Commission of the Accreditation Board for Engineering and Technology (ABET).

Graduate
A Master of Science (MS) is offered in aerospace, electrical, industrial, and mechanical engineering. A Master of Engineering Management program is offered in the industrial and manufacturing engineering department. A Doctor of Philosophy (PhD) is also offered by each of the four departments of engineering.

Typical fields of specialization include aerodynamics, fluid mechanics, propulsion, structures, solid mechanics, composites, dynamics, and control; communication theory, signal processing, control theory, digital systems, energy, and power systems; thermodynamics, heat transfer, engineering materials, engineering design, kinematics; and operations research, management science, manufacturing processes, and human factors.

See the Wichita State University Graduate Catalog for more information about the graduate programs.

Policies
Admission
All entering students with a declared interest in engineering will be admitted to the College of Engineering in program status. Engineering students must complete the following courses, each with a grade of C or better, within the first 48 hours: (a) English 101/100, English 102, and Communications 111, and (b) Mathematics 242, or their equivalents.

Transfer students must present an earned GPA of 2.000 or higher on a 4.000 scale for all prior college work in order to be fully admitted into the College of Engineering. Transfer students with a GPA of less than 2.000 may petition for probationary admission.

Probation
Students are placed on academic probation if any of the following grade point averages is less than 2.000 and if they have attempted at least 6 hours in that grade point average at Wichita State University: (1) cumulative grade point average of all college/university work, (2) WSU grade point average and (3) engineering major grade point average. Attempts hours are defined as all hours appearing on the transcript with a grade of A, B, C, D, F, W, Cr, NCr, I, S, or U. Academic probation is not removed until all grade point averages are at least 2.000. Transfer students admitted on probation must complete at least 12 semester hours of credit work at Wichita State before probation may be removed.

Students on academic probation may not enroll for more than 12 semester hours in a 16-week term, 6 semester hours in an eight-week term, or 3 hours in a four-week term. Exceptions to these limitations may be made on the recommendation of the student's department advisor with the approval of the student's department chairperson.

Academic Dismissal
Students on academic probation are subject to academic dismissal from the College of Engineering if they fail to attain a cumulative or overall WSU grade point average of 2.000 in the next 12 hours attempted, or a cumulative major grade point average of 2.000 in the next 9 hours attempted in their major field, and the grade point average for the most recent semester or Summer Session is below 2.000.

Academic Advising and Enrollment
Students in the College of Engineering are invited to seek academic advice from their advisors or the department chairs any time during the school year. Engineering students are strongly urged to register early for courses during published registration dates to avoid closed classes. Late registration or adding engineering courses will be allowed only during the first week of a regular semester or the first three days of a Summer Session.

Students in the College of Engineering may not enroll in more than 20 hours per semester during the academic year. Summer Session enrollments are limited to a maximum of 5 hours for each four-week session or 10 hours during the eight-week session. Students who have completed at least 24 hours at WSU with a WSU grade point average of 3.000 or higher may petition their department chairperson for permission to enroll in excess hours.

Students who are employed full or part time should, in consultation with their academic advisor, reduce their enrollments to a level appropriate to their work load.

Only students admitted to the College of Engineering or the Graduate School will be allowed to enroll in engineering courses at the 300 level or above. Because there are legitimate reasons for qualified non-engineering students to enroll in an engineering course at the 300 level or above, the academic dean will consider petitions for exceptions to the preceding statement.

Transfer Credit
Students wishing to receive transfer credits for engineering courses taken at other institutions prior to admission to WSU must submit transcripts and course descriptions and syllabi to the College of Engineering for evaluation. Courses considered for transfer credit must have a grade of C or better.

Degree-bound WSU students should speak with an advisor before enrolling in courses at another institution.

Graduation Requirements
All engineering students who are pursuing bachelor's degrees must meet three sets of course requirements for graduation: (A) WSU General Education requirements, (B) College of Engineering requirements, and (C) the Accreditation Board for Engineering and Technology (ABET) requirements. Guidelines for these are given below.

WSU General Education Requirements
(1) Communication skills courses: All WSU students must complete three courses in communication skills: English 101 or 100 (for non-native speakers), English 102, and Communication 111, each with a grade of C or better and within their first 48 hours.

(2) Four Introductory courses in the disciplines to include one course each in the divisions of Fine Arts, Humanities, and Social and Behavioral Sciences, and an additional course in a different discipline in either Humanities or Social and Behavioral Sciences.

(3) Two additional courses that are not introductory. One is to be a Further Study course in one of the disciplines in the division in which two introductory courses are taken. The second additional course is to be an Issues and Perspectives course in a different division.

All WSU students also must complete courses in the division of Natural Science and Mathematics; however, because the engineering curriculum requires 32-34 hours of mathematics and natural sciences, engineering students automatically satisfy the requirements in this division.

Refer to the section on the General Education Pro-
ABET Requirements
ABET expects the curricular content of an engineering program to include the equivalent of at least three years of study in the areas of mathematics, basic sciences, humanities and social sciences, and engineering topics. The course work must include at least (1) one year of an appropriate combination of mathematics beyond trigonometry and basic sciences, (2) one-half year (17 hours) of humanities and social sciences, and (3) one and one-half years (51 hours) of engineering topics.

Studies in basic sciences must include both general chemistry and calculus-based general physics at appropriate levels, with at least a two-semester sequence of study in either area. The courses in humanities and social sciences must provide both breadth and depth and not be limited to a selection of unrelated introductory courses. Engineering topics include subjects in the engineering sciences and engineering design.

All engineering students follow about the same general curriculum for the first two years. All engineering programs of study are designed to meet ABET criteria as well as satisfy WSU general education requirements, and all courses should be selected with the assistance of a College of Engineering advisor. The recommended sequence of courses for engineering students in all departments is outlined later in this section. Each sequence has been planned so that students can complete the program to meet all requirements in the minimum time.

As part of the institutional effort required to ensure continuous accreditation by ABET, students taking longer than five years to complete an undergraduate degree will be required to meet ABET engineering curricular criteria in effect at the time of their graduation.

Students must file an application for degree card in the engineering dean's office two semesters preceding their final semester.

**Graduation grade point average requirements:** The candidate for a degree must attain a 2.000 grade point average in each of the following categories:

1. All college and university work attempted (cumulative grade point average)
2. All work attempted at WSU (WSU grade point average)
3. All work in the student's major.

Students are not allowed credit toward graduation for D grade work in excess of one-quarter of their total hours.

**Cooperative Education Program**
The College of Engineering offers a cooperative education program in conjunction with the University Cooperative Education Internship Program described in this Catalog.

The Co-op plan is a voluntary program in which the student works part-time (parallel program) or alternates paid professional work periods with classroom periods during the junior and senior years. The two most typical plans are illustrated in the following table.

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<th>Year</th>
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<td>Semester</td>
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<tr>
<td>Plan A</td>
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<td>Plan B</td>
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C Indicates college; W Indicates work.

These plans make it possible for each industrial position to be filled by two students, one from Plan A and one from Plan B. Other plans can be developed in cooperation with the coordinator.

To be eligible for the Co-op program, a student must demonstrate by academic performance during the freshman year the potential to complete the degree program satisfactorily. Generally, this means the earning of a grade point average of 2.500 or higher. Also, the student's character and personality must be acceptable to the cooperating employer. Transfer students with the above qualifications should contact the cooperative education coordinator at the beginning of their first semester at WSU. To continue in the program, a student must maintain a satisfactory academic standing.

Students interested in participating in the program should contact the College of Engineering Co-op coordinator who will provide the necessary application information. Upon acceptance into the program, the coordinator will assist the student in arranging interviews with cooperating industries.

**Engineering—General Engineering (ENGR)**
The following course explores general engineering topics.

**Lower-Division Course**
ENGR 101. An Introduction to Engineering (3). Assists engineering students in exploring engineering careers and opportunities. Provides information on academic and life skills essential to become a successful engineering student. Promotes connections to specific engineering majors and provides activities to assist and reinforce the decision to major in engineering. Recommended for all new engineering students. Offered fall and spring.

**Aerospace Engineering (AE)**
The educational objectives of the aerospace engineering program are to provide (a) an undergraduate education that will allow successful graduates to become engineers who are sufficiently trained in the principles of aerospace engineering to meet the needs of potential employers and to provide (b) the foundation for capable students to pursue graduate studies in aerospace engineering and related fields.

Aerospace engineering students participate in an academic program of study in technical areas such as aerodynamics, performance, propulsion, flight mechanics, and structures. After developing a background of skills in these technical areas, senior students complete a two-course sequence in aerospace design.

The aerospace engineering curriculum also gives students the opportunity to develop a comprehensive foundation in mathematics, physics, general engineering, digital computations, written and oral communications, and humanities and social sciences.

Students have access to an excellent array of laboratory facilities including six wind tunnels, a water tunnel, a computer lab, a structural testing lab, and a composite structures lab. These facilities are among the finest found in academic institutions.

The aircraft industries in Wichita include Beech Aircraft Company, Cessna Aircraft Company, Bombardier Learjet Corporation, and Raytheon Aircraft and Airbus. The presence of these companies has a strong positive influence on WSU's aerospace engineering program.

**Bachelor of Science Degree in Aerospace Engineering**

**Sequence of Courses**
The undergraduate program requires the completion of 135 semester hours for graduation, minus advanced placement credit. Specific degree requirements are given below.
Aerospace Engineering Courses

Course Hrs.
General Education Courses
Basic Skills:
ENGL 101/100 and 102, College English I & II 6
COMM 111, Public Speaking 3
PHIL 305, Engineering Ethics 3
Humanities/fine arts or social/behavioral science courses* 15
Mathematics/Natural Sciences:
MATH 242, 243 & 344 Calculus I, II & III 13
MATH 555, Differential Equations I 3
PHYS 313 & 315, University Physics I & Lab 5
PHYS 314, University Physics II 4
CHEM 111, General Chemistry 5
Natural Science Elective** 3

Engineering Core Courses:
AE 223, Statics 3
EN 255, Engineering Economy 3
ME 290, Thermodynamics I 3
ECE 282, Circuits I 4

Major Courses:
AE 227, Engineering Digital Computation 3
EN 222, Engineering Graphics 3
ME 230, Materials Engineering 3
AE 324, Fundamentals of Atmospheric Flight 3
AE 333, Mechanics of Materials 3
AE 373, Dynamics 3
AE 415, Introduction to Space Dynamics 3
AE 424, Aerodynamic Theory 4
AE 502, Propulsion I 3
AE 512, Exper. Methods in Aerodynamics 2
AE 514, Flight Dynamics and Controls 3
ME 521, Fluid Mechanics 3
AE 525 & 625, Flight Structures I & II 6
AE 528 & 628, Airspace Design I & II 8
AE 607, Flight Control Systems 3
Technical Electives** 3

Courses for Graduate/Undergraduate Credit

AE 224, Introduction to Aerospace (3).
AE 324, Fundamentals of Atmospheric Flight (3).
AE 333, Mechanics of Materials (3).
AE 373, Dynamics (3).
AE 402, Propulsion I (3).
AE 514, Flight Dynamics and Controls (3).
ME 521, Fluid Mechanics (3).
AE 525 & 625, Flight Structures I & II (6).
AE 528 & 628, Airspace Design I & II (8).

* Must be chosen with advisor’s approval or from a departmentally approved list.

Lower-Division Courses

AE 224, Introduction to Aerospace (3). Presents an overview of the aerospace engineering program, a study of the skills necessary for successful completion of an engineering curriculum, and an introduction to aeronautics. Exercises, guest speakers, and other activities will be used to explore a career in aerospace engineering and to develop skills to help students cope with the expectations of a very demanding engineering course of study. Historical and modern case studies are used to survey the aerodynamics, structural, stability, and propulsion aspects of atmospheric flight vehicles. Historical, technical, and practical aspects of rocketry, space dynamics, spacecraft design, and the space environment will be reviewed. Intended for freshman and sophomore AE students who have not taken AE 324; however, it may be taken by students at any level in other engineering departments and/or colleges.

AE 223, Statics (3). The study of the condition of equilibrium of rigid bodies under the action of forces. Rigid bodies include beams, trusses, frames, and machines. Considers both two- and three-dimensional bodies. Also includes the study of centers of gravity, and moments of inertia. Co-requisites: MATH 243 and PHYS 313.


AE 281A, Co-op Education (1). Introduces the student to engineering practice by working in industry in an engineering-related job and provides a planned professional experience designed to complement and enhance the student's academic program. Individualized programs must be formulated in consultation with, and approved by, the appropriate faculty sponsors and cooperative education coordinators. Intended for students who will be working full-time on their Co-op assignment and need not be enrolled in any other course. May be repeated. Offered Cr/NoCr only. Prerequisites: 30 hours toward a Bachelor of Science degree in aerospace engineering and approval by their appropriate faculty sponsor.

AE 281P, Co-op Education (1). Introduces the student to engineering practice by working in industry in an engineering-related job and provides a planned professional experience designed to complement and enhance the student's academic program. Individualized programs must be formulated in consultation with, and approved by, the appropriate faculty sponsors and cooperative education coordinators. Intended for students who will be working full-time on their Co-op assignment and need not be enrolled in any other course. May be repeated. Offered Cr/NoCr only. Prerequisites: 30 hours toward a Bachelor of Science degree in aerospace engineering and approval by their appropriate faculty sponsor.

AE 281P, Co-op Education (1). Introduces the student to engineering practice by working in industry in an engineering-related job and provides a planned professional experience designed to complement and enhance the student's academic program. Individualized programs must be formulated in consultation with, and approved by, the appropriate faculty sponsors and cooperative education coordinators. Intended for students who will be working full-time on their Co-op assignment and need not be enrolled in any other course. May be repeated. Offered Cr/NoCr only. Prerequisites: 30 hours toward a Bachelor of Science degree in aerospace engineering and approval by their appropriate faculty sponsor.

Upper-Division Courses


AE 333, Mechanics of Materials (3). The study of mechanical properties of materials, transformation of stresses and strains, stresses and deformations in structural elements of various shapes and loading, statically indeterminate structures, and buckling. Prerequisite: AE 223. Corequisite: MATH 344.

AE 373, Dynamics (3). A study of the kinematics and kinetics of particles and rigid bodies. Includes force-mass-acceleration, work-energy, and impulse-momentum methods. Prerequisites: AE 223 and MATH 344.

AE 415, Introduction to Space Dynamics (3). Fundamentals of orbital mechanics and rigid body dynamics; two-body problems; orbital maneuvers and orbital determination; rigid body kinematics and kinematics. Prerequisites: AE 227 and 324. Corequisite: MATH 555.


AE 460, Selected Topics (1-3). New or special topics presented on sufficient demand. Repeatable for credit when subject matter warrants. Prerequisite: instructor's consent.

AE 481A, Co-op Education (1). See AE 281A. Graded Cr/NoCr only. Student has received permission before enrolling for course to be used as a technical elective. Prerequisites: junior standing and approval by the appropriate faculty sponsor. May be repeated.

AE 481P, Co-op Education (1). See AE 281P. Graded Cr/NoCr only. Student has received permission before enrolling for course to be used as a technical elective. Prerequisites: junior standing and approval by the appropriate faculty sponsor. May be repeated.

Courses for Graduate/Undergraduate Credit


AE 508, Flow Dynamics (3). Lumped parameter modeling, classical, numerical, transform, and state model methods of solution; introduction to systems with feedback; analogies of various physical systems. Prerequisites: AE 373 and MATH 555.


AE 527, Numerical Methods in Engineering (3). Error analysis. Includes polynomial approximations and power series techniques; solutions of equations, matrices and systems of linear equations, numerical differentiation and integration, approximation...

AE 629. Aerospace Design II (4). 2L. Preliminary design of flight vehicles: design iteration, sensitivity studies, optimization, economic considerations and introduction to project management. Prerequisite: AE 528.


AE 635. Basic Composite Material Technologies (3). Introduces basic composite material technologies, including material properties, manufacturing methods, nondestructive inspection, and design. Prerequisite: AE 630.

AE 653. Manufacturing Composite Structures (3-2). Manufacturing and tools for fiber-reinforced polymer structures and structural components. Prerequisites: both AE 20 and AE 653 are recommended.


AE 707. Modern Flight Control System Design I (3). Modern multi-loop design methods for stability and control augmentation and guidance systems, specifically for aerospace vehicles. State variable model, optimal state feedback gains and Riccati's equation, tracking systems, sensors and actuators, discretization of continuous dynamic systems, optimal design for digital controls, and effect of non-linearities and trim conditions on design considerations. Prerequisites: AE 514 or AE 714, and AE 607 or ECE 684 or ME 659.

AE 711. Intermediate Aerodynamics I (3). A study of potential flow equations of motion, singularity solutions, principle of superposition, conformal mapping, thin aerofoil theory, finite wing theory, effects of fluid inertia, three-dimensional singularities, swept wing theory, delta wing theory, introduction to panel methods, and an introduction to automobile aerodynamics. Prerequisite: AE 424 or ME 521.

AE 712. Advanced Aerodynamics Laboratory (3). 1L, 3L. Advanced topics in wind tunnel testing, including analysis and sensor sensitivity, modeling techniques, flow design and calibration, control surface loads and moments, laser velocimetry, hot film anemometry, digital signal processing, flow measurement probes, flow visualization using smoke tunnels and water tunnel. Prerequisite: AE 512 or instructor's consent.

AE 713. Introduction to Aeroelasticity (3). Studies phenomena involving interactions among aerodynamic, inertial, and elastic forces. Explores influence of these interactions on aircraft design. Includes specific cases as divergence, control effectiveness, control reversal, flutter, buffet, dynamic response to rapidly applied periodic forces, aeroelastic effects on load distribution, and static and dynamic stability. Prerequisites: AE 333, 424 or equivalent.


AE 716. Compressible Fluid Flow (3). Analysis of compressible fluid flow for one- and two-dimensional cases, moving shock waves, one-dimensional flow with friction and heat addition, linearized potential equation, method of characteristics, conical shocks, and subsonic similarity laws. Prerequisites: AE 424, ME 521 or equivalent.

AE 719. Introduction to Computational Fluid Dynamics (3). Classification of partial differential equations, numerical solution of parabolic, elliptic, and hyperbolic differential equations, stability analysis, boundary conditions, scalar representation of the Navier-Stokes equations, incompressible Navier-Stokes equations. Prerequisite: AE 424 or ME 521.

AE 722. Finite Element Analysis of Structures I (3). Advanced treatment of the theoretical concepts and principles necessary for the application of the finite element method in the solution of differential equations in engineering. Prerequisite: AE 625 or equivalent or instructor's consent.

AE 731. Theory of Elasticity (3). Develops the equations of the theory of elasticity and uses them to determine stress and displacement fields in linear elastic isotropic bodies. Uses Airy stress functions to obtain solutions, and introduces energy principles and variational methods. Prerequisite: instructor's consent.


AE 759. Neural Networks for System Modeling and Control (3). Introduces specific Neural Network architectures used for dynamic system modeling and intelligent control includes theory of feed-forward, recurrent, and Hopfield networks; applications in robotics, aircraft and vehicle guidance, chemical processes, and optimal control. Prerequisites: AE 607 or ME 659 or ECE 684 or instructor's consent.

AE 760. Selected Topics (1-3). Prerequisite: instructor's consent.


AE 777. Vibration Analysis (3). A study of free, forced, damped, and undamped vibrations for one and two degrees of freedom, as well as classical, numerical, and energy solutions of multi-degree freedom systems. Introduces continuous systems. Prerequisites: MATH 355, AE 373 and 333.

Please see the Graduate Catalog for courses numbered 800 and above.

Areas of special interest within engineering are aerodynamics, propulsion, structures, materials, systems, design, fluid flow, heat transfer, control, materials, energy, and environment. These areas are treated in both the graduate and undergraduate programs. There are also various specializations in the electrical engineering program, including control systems, signal processing, power systems, and computer engineering.

Electrical and Computer Engineering (ECE) Students in the electrical and computer engineering (ECE) department have two degree programs from which to choose, electrical engineering or computer engineering.

The objectives of the electrical engineering program are to enable students to enter the electrical engi-
engineering field by providing them with the fundamental knowledge necessary for the practice of electrical engineering, including scientific principles, rigorous analysis, and creative design to meet the requirements of employer constituents; and 2) to provide an undergraduate education that will enable qualified students to pursue graduate studies in electrical engineering and related fields.

The objectives of the computer engineering program are 1) to enable students to enter the computer engineering field by providing them with the fundamental knowledge for the practice of computer engineering in the areas of computer system design and computer networking, including scientific principles, rigorous analysis, and creative design to meet the requirements of employer constituents; and 2) to provide an undergraduate education that will enable qualified students to pursue graduate studies in computer engineering and related fields.

Both programs require a total of 128 credit hours minus hours from advanced placement credit. The programs have a minimum of 93 credit hours in common. The common hours are made up of communications skills (9 hours), math and science courses (29 hours), general education courses (18 hours), and the courses covering the fundamentals common to each of the degree programs at WSU (13 hours). The remaining common courses are computer software and digital design courses and courses stressing the laws governing the individual behavior of electrical systems as well as their behavior when included as parts of more complex electrical systems (24 hours). The programs are structured to assure that electrical engineering students are familiar with computers and computer hardware and computer engineers have a strong background in electrical engineering principles.

Electrical and computer engineering students should have a strong interest in mathematics and science. As part of the curriculum, senior-level students are required to take a two-semester senior project sequence. This project gives the students the opportunity to apply skills acquired during their course work to "real world" problems.

The electrical engineering degree has a sufficient number of technical electives to allow the student to develop skills in specialized areas such as communications and signal processing, control systems, electric power systems, electronics, and digital systems.

The computer engineering degree is a more specialized degree with more required courses and fewer electives.

Specific requirements for the electrical and computer engineering programs are given below.

### Electrical Engineering Course

**General Education Courses**

<table>
<thead>
<tr>
<th>Course</th>
<th>Hrs.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Basic Skills</td>
<td></td>
</tr>
<tr>
<td>ENGL 101/102 and 102, College English I &amp; II</td>
<td>6</td>
</tr>
<tr>
<td>COMM 111, Public Speaking</td>
<td></td>
</tr>
<tr>
<td>PHIL 385 Engineering Ethics</td>
<td></td>
</tr>
<tr>
<td>Other fine arts/humanities &amp; social/behavioral science courses</td>
<td>3</td>
</tr>
</tbody>
</table>

**Mathematics/Natural Sciences**

<table>
<thead>
<tr>
<th>Course</th>
<th>Hrs.</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH 242, 243, Calculus I, II &amp; III</td>
<td>10</td>
</tr>
<tr>
<td>MATH 555, Differential Equations</td>
<td>3</td>
</tr>
<tr>
<td>PHYS 313 &amp; 314, University Physics I &amp; II</td>
<td>8</td>
</tr>
<tr>
<td>CHEM 111, General Chemistry</td>
<td>3</td>
</tr>
<tr>
<td>IEN 254, Engineering Probability and Stats</td>
<td>3</td>
</tr>
</tbody>
</table>

**Engineering Core Courses**

<table>
<thead>
<tr>
<th>Course</th>
<th>Hrs.</th>
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</thead>
<tbody>
<tr>
<td>AE 223, Statics</td>
<td>3</td>
</tr>
<tr>
<td>ECE 282, Circuits I</td>
<td>4</td>
</tr>
<tr>
<td>IEN 255, Engineering Economy</td>
<td>3</td>
</tr>
<tr>
<td>ME 398, Thermodynamics</td>
<td>3</td>
</tr>
</tbody>
</table>

**Major Courses**

<table>
<thead>
<tr>
<th>Course</th>
<th>Hrs.</th>
</tr>
</thead>
<tbody>
<tr>
<td>ECE 138, Engineering Computing in C</td>
<td>3</td>
</tr>
<tr>
<td>ECE 194, Introduction to Digital Design</td>
<td>4</td>
</tr>
<tr>
<td>ECE 284, Circuits II</td>
<td>3</td>
</tr>
<tr>
<td>ECE 363, Electromagnetic Field Theory</td>
<td>3</td>
</tr>
<tr>
<td>ECE 383, Signals and Systems</td>
<td>3</td>
</tr>
<tr>
<td>ECE 410, Distributed Parameter Circuits</td>
<td>3</td>
</tr>
<tr>
<td>ECE 488, Electric Machines &amp; Transformers</td>
<td>4</td>
</tr>
<tr>
<td>ECE 692, Electronic Circuits I</td>
<td>4</td>
</tr>
<tr>
<td>ECE 493 or 688, Elect. Circuits II or Power Elec.</td>
<td>4</td>
</tr>
<tr>
<td>ECE 681 or 792, Intro. Control System Concepts or Linear Systems, or ME 659, Mech. Control Systems</td>
<td>3</td>
</tr>
<tr>
<td>ECE 586, Intro. to Communication Systems</td>
<td>4</td>
</tr>
<tr>
<td>ECE 585 &amp; 595, Electrical Design Proj. I &amp; II</td>
<td>4</td>
</tr>
<tr>
<td>Technical Electives*</td>
<td>15</td>
</tr>
</tbody>
</table>

* Must be chosen with advisor's approval from a departmentally approved list.

### Computer Engineering Course

**General Education Courses**

<table>
<thead>
<tr>
<th>Course</th>
<th>Hrs.</th>
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</thead>
<tbody>
<tr>
<td>Basic Skills</td>
<td></td>
</tr>
<tr>
<td>ENGL 101/102 and 102, College English I &amp; II</td>
<td>6</td>
</tr>
<tr>
<td>COMM 111, Public Speaking</td>
<td></td>
</tr>
<tr>
<td>PHIL 385 Engineering Ethics</td>
<td></td>
</tr>
<tr>
<td>Other fine arts/humanities &amp; social/behavioral science courses</td>
<td>3</td>
</tr>
</tbody>
</table>

**Mathematics/Natural Sciences**

<table>
<thead>
<tr>
<th>Course</th>
<th>Hrs.</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH 242 &amp; 243, Calculus I &amp; II</td>
<td>10</td>
</tr>
<tr>
<td>MATH 555, Differential Equations</td>
<td>3</td>
</tr>
<tr>
<td>PHYS 313 &amp; 314, University Physics I &amp; II</td>
<td>8</td>
</tr>
<tr>
<td>CHEM 111, General Chemistry</td>
<td>3</td>
</tr>
<tr>
<td>IEN 254, Engineering Probability and Stats</td>
<td>3</td>
</tr>
<tr>
<td>CS 300, Data Structures and Algorithms</td>
<td>4</td>
</tr>
</tbody>
</table>

**Engineering Core Courses**

<table>
<thead>
<tr>
<th>Course</th>
<th>Hrs.</th>
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<tbody>
<tr>
<td>AE 223, Statics</td>
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</tr>
<tr>
<td>ECE 282, Circuits I</td>
<td>4</td>
</tr>
<tr>
<td>IEN 255, Engineering Economy</td>
<td>3</td>
</tr>
<tr>
<td>ME 398, Thermodynamics</td>
<td>3</td>
</tr>
</tbody>
</table>

**Major Courses**

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<th>Course</th>
<th>Hrs.</th>
</tr>
</thead>
<tbody>
<tr>
<td>ECE 138, Engineering Computing in C</td>
<td>3</td>
</tr>
<tr>
<td>ECE 194, Introduction to Digital Design</td>
<td>4</td>
</tr>
<tr>
<td>ECE 284, Assembly Language Programming for Engineers</td>
<td>3</td>
</tr>
<tr>
<td>ECE 284, Circuits II</td>
<td>3</td>
</tr>
<tr>
<td>ECE 294, Digital Design Techniques</td>
<td>3</td>
</tr>
<tr>
<td>ECE 383, Signals and Systems</td>
<td>3</td>
</tr>
<tr>
<td>ECE 594, Intro. to Computer Architecture</td>
<td>3</td>
</tr>
<tr>
<td>ECE 492, Electronic Circuits I</td>
<td>4</td>
</tr>
<tr>
<td>ECE 594, Microprocessor-Based System Design</td>
<td>4</td>
</tr>
</tbody>
</table>

**Technical Electives**

* Refer to graduation requirements at the beginning of this section for details.

### Lower-Division Courses

**ECE 101. Introduction to Electrical Engineering (3).** Gives those students also enrolled in ENGR 101 the opportunity to have a hands-on experience in each of the areas of specialization in electrical engineering: digital design, power, communications, and control.

**ECE 138. Engineering Computing in C (3).** Introduces basic computer programming using C with applications to elementary engineering problems. Stresses both C syntax rules and problem solving approaches. Laboratory exercises given for programming on personal computers. Prerequisite: MATH 111 or equivalent.

**ECE 194. Introduction to Digital Design (4).** Introduces basic computer programming using C with applications to elementary engineering problems. Stresses both C syntax rules and problem solving approaches. Laboratory exercises given for programming on personal computers. Prerequisite: MATH 111 or equivalent.

**ECE 252. Circuits I (4).** Electric circuit principles and methods of analysis. Includes d.c. circuits, network theorems, capacity and inductance, a.c. circuit analysis, power plane techniques, complex power, and balanced three-phase circuits. Prerequisite: MATH 242.

**ECE 284. Circuits II (3).** Includes circuits with mutually coupled elements, transfer functions, frequency response, two-port networks, Laplace transforms and applications to transient circuit analysis, and the application of computer-aided analysis software for circuit analysis and design. Prerequisites: ECE 282 and MATH 243.

**ECE 294. Digital Design Techniques (3).** Digital design techniques include registers and register transfer language, RTL state design; memory, memory interfacing, and microprogramming; programmable logic devices, different types of PLDs, combinational and sequential circuit design using PLDs; ABEI, ABEI-based design using ABEI, CMOS family, TTL to CMOS and CMOS to TTL interfacing. Uses CAD tools for circuit simulation. Prerequisite: ECE 194. Corequisite: ECE 138.
### Upper-Division Courses

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Prerequisites</th>
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</thead>
<tbody>
<tr>
<td>ECE 383</td>
<td>Electromagnetic Field Theory (3)</td>
<td>A vector development of electric and magnetic fields, including experimental</td>
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<td>laws, polarization phenomena, and Maxwell's equations. Prerequisite: ECE 282,</td>
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<td>MATH 344 and 555.</td>
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<tr>
<td>ECE 385</td>
<td>Signals and Systems (3)</td>
<td>Properties of signals and systems, convolution and its application to system</td>
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<td>response, Fourier series representation of periodic signals, Fourier</td>
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<td>transforms and continuous spectra, filters, time domain sampling, and</td>
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<td>Z-transforms. Many of these topics involve discrete as well as continuous</td>
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<td>systems. Prerequisites: MATH 585 and ECE 138. Consecutive: ECE 284.</td>
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<tr>
<td>ECE 394</td>
<td>Introductory to Computer Architecture (3).</td>
<td>Introduces memory systems, arithmetic circuits, and computer architecture.</td>
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<td>A small computer will be designed in class. Studies instruction set selection,</td>
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<td>bus systems, hard-wired design, and microprogrammed design. Prerequisite:</td>
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<td>ECE 294.</td>
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<tr>
<td>ECE 410</td>
<td>Distributed Parameter Circuits (3).</td>
<td>A study of the theory and applications of distributed parameter circuits</td>
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<td>with emphasis on transmission lines. Treats telegrapher's equations,</td>
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<td>transient signals on lossless lines, steady state signals on lossless lines,</td>
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<td>effects of lumped impedances, and Smith Chart techniques. Prerequisite:</td>
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<td></td>
<td>ECE 383.</td>
</tr>
<tr>
<td>ECE 477</td>
<td>Selected Topics in Electrical Engineering (1-4).</td>
<td>New or special courses presented on sufficient demand. Repeatable for credit.</td>
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<td>Prerequisite: departmental consent.</td>
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<tr>
<td>ECE 481A</td>
<td>Co-op Education (I).</td>
<td>Provides students the opportunity to obtain practice in application of</td>
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<td>engineering principles by employment in an engineering-related job</td>
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<td>integrating course work with a planned and supervised professional</td>
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<td>experience. Individualized programs must be formulated in consultation with,</td>
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<td>and approved by: appropriate faculty sponsors and cooperative education</td>
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<td>coordinators. Intended for students who will be working full-time on their</td>
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<td>Co-op assignment and need not be enrolled in any other course. Offered: C/</td>
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<td>N/0 only. Prerequisites: junior standing and approval by appropriate faculty</td>
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<tr>
<td>ECE 481P</td>
<td>Co-op Education (I).</td>
<td>Provides the student the opportunity to obtain practice in application of</td>
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<td>engineering principles by employment in an engineering-related job</td>
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<td>integrating course work with a planned and supervised professional</td>
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<td>experience. Individualized programs must be formulated in consultation with,</td>
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<td>and approved by: appropriate faculty sponsors and cooperative education</td>
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<td>coordinators. Students must enroll concurrently in a minimum of 6 hours of</td>
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<td>course work including this course in addition to a minimum of 20 hours per</td>
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<td>week at their Co-op assignment. Offered: C/N/0 only. Prerequisites: junior</td>
</tr>
<tr>
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<td></td>
<td>standing and approval by appropriate faculty sponsor.</td>
</tr>
<tr>
<td>ECE 488</td>
<td>Electric Machines and Transformers (4).</td>
<td>Theory and analysis of transformers, DC machines, and AC machines. Includes</td>
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<td>single-phase and three-phase transformers, DC machines, synchronous machines,</td>
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<td>and induction motors. Prerequisites: ECE 282 and ENGI 102.</td>
</tr>
<tr>
<td>ECE 492</td>
<td>Electronic Circuits I (3).</td>
<td>Introduces semiconductor devices and applications in discrete and integrated</td>
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<tr>
<td></td>
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<td>circuit design. Applications include, but are not limited to, op-amp</td>
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<td>circuits, rectification, and transistor amplifiers. Prerequisite: ECE 294.</td>
</tr>
<tr>
<td>ECE 493</td>
<td>Electronic Circuits II (4).</td>
<td>An investigation of the theory and application of discrete and integrated</td>
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<td>circuits. Includes op-amp construction, frequency response, feedback,</td>
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<td>stability, power amplifiers, and non-linear integrated circuits. Prerequisites:</td>
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<td></td>
<td>ECE 492 and ENGL 102.</td>
</tr>
<tr>
<td>ECE 510</td>
<td>Optics (4).</td>
<td>A study of the theory and application of optics. Includes geometrical optics,</td>
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<td>physical optics, Fourier optics, optical image processing, lasers, and</td>
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<td>nonlinear optics. Prerequisites: PHYS 314, ECE 383.</td>
</tr>
<tr>
<td>ECE 577</td>
<td>Special Topics in Electrical and Computer Engineering I (1-4).</td>
<td>New or special courses presented on sufficient demand. Repeatable for credit.</td>
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<tr>
<td></td>
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<td>Prerequisite: departmental consent.</td>
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<tr>
<td>ECE 585</td>
<td>Electrical Design Project I (2).</td>
<td>A design project under faculty supervision chosen according to the student's</td>
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<td>interest. Prerequisites: COMM 111 and departmental consent. May not be</td>
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<td></td>
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<td>counted toward a graduate electrical major.</td>
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<tr>
<td>ECE 586</td>
<td>Introductory to Communication Systems (4).</td>
<td>Fundamentals of communication systems: models and analysis of source,</td>
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<td>modulation, channel, and demodulation in both analog and digital form.</td>
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<td>Reviews Fourier Series, Fourier Transform, DFT, Probability, and Random</td>
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<td>Variables. Studies in Sampling, Multiplexing, AM and FM analog systems, and</td>
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<td>additive white Gaussian noise channel. Additional topics such as PSK and</td>
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<td>15K digital communication systems covered as time permits. Prerequisites:</td>
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<td>ECE 383 and either STAT 471 or IEN 254.</td>
</tr>
<tr>
<td>ECE 588</td>
<td>Advanced Electric Motors (3).</td>
<td>Advanced electric motor applications and theory. Includes single-phase motors,</td>
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<td>adjustable speed ac drive applications, and step motor. Prerequisites:</td>
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<td></td>
<td>ECE 488 and 492.</td>
</tr>
<tr>
<td>ECE 594</td>
<td>Microprocessor Based System Design (4).</td>
<td>Presents development of microprocessor based systems. Studies interfacing the</td>
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<tr>
<td></td>
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<td>address bus, data bus, and control bus to the processor chip. Memory</td>
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<td>systems and I/O devices interfaced to the appropriate buses. Vendor-supplied,</td>
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<td>special-purpose chips, such as interrupt controllers, programmable</td>
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<td>I/O devices, and DMA controllers, integrated into systems designed in class.</td>
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<td>Lab gives hands-on experience. Prerequisites: ECE 394, or 238 and 294.</td>
</tr>
<tr>
<td>ECE 596</td>
<td>Electrical Design Project II (2).</td>
<td>A continuation of ECE 585. Prerequisite: ECE 585. Will not count toward a</td>
</tr>
<tr>
<td></td>
<td></td>
<td>graduate electrical engineering degree.</td>
</tr>
<tr>
<td>ECE 598</td>
<td>Electric Power Systems Analysis (3).</td>
<td>Analysis of electric utility power systems. Topics include analysis and</td>
</tr>
<tr>
<td></td>
<td></td>
<td>modeling of power transmission lines and transformers, power flow analysis</td>
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<td></td>
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<td>and software, and an introduction to symmetrical components. Prerequisite:</td>
</tr>
<tr>
<td></td>
<td></td>
<td>ECE 282.</td>
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<tr>
<td>ECE 616</td>
<td>Introduction to Wireless Communications (3).</td>
<td>Introduces students to the basic principles and issues related to wireless</td>
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<tr>
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<td>communications. We will consider not only the basic technical aspects of the</td>
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<td>wireless communications, but also the market issues, social and cultural</td>
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<td>impact of the wireless communications, deregulation issues as well as</td>
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<td>political issues relating to the development and wide popularity of wireless</td>
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<td>communications. The level of the course will be appropriate for junior or</td>
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<td>senior undergraduates as well as beginning graduate students. Prerequisites:</td>
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<td>ECE 383, IE 254.</td>
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<tr>
<td>ECE 638</td>
<td>Telecommunications (3).</td>
<td>Topics in circuit and packet switching, layered communication architectures,</td>
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<td>state dependent queues, traffic engineering, call processing, software</td>
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<td></td>
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<td>organization, routing, and common channel signaling. Prerequisite: ECE 386 or</td>
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<td>departmental consent.</td>
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<tr>
<td>ECE 644</td>
<td>Advanced Digital Lab (2).</td>
<td>An open laboratory experience for computer engineering students. Gives the</td>
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<td>student an opportunity to use state-of-the-art devices and equipment</td>
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<td></td>
<td>in designing complex digital systems. Will not count towards an electrical</td>
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<td>engineering degree. Prerequisites: ECE 394 and 399.</td>
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<tr>
<td>ECE 666</td>
<td>Computer Forensics (3).</td>
<td>Computer crimes include security violations and unauthorized access and theft</td>
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<td>of sensitive information. In this course, we discuss procedures for the</td>
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<td>identification, preservation, and extraction of electronic evidence that can</td>
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<td>be legally used when a computer crime is committed. From the network</td>
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<td>perspective, we discuss auditing and investigation of network and host</td>
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<td>intrusions. Forensic tools and resources for system administrators and</td>
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<td>information system security officers will also be covered. Legal</td>
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<td>issues related to computer and network forensics will be discussed. There</td>
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<td>will be about eight programming-related laboratory exercises in this class.</td>
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<td>This course is intended for senior undergraduate students and graduate</td>
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<td></td>
<td>students majoring in ECE and computer science. Prerequisites: ECE 125 and CS</td>
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<td>510. In addition, good programming skills in one of the languages (C, C++,</td>
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<td>or Java), familiarity with the operating systems (UNIX/WINDOWS) are required.</td>
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<tr>
<td>ECE 684</td>
<td>Introductory Control System Concepts (3).</td>
<td>An introduction to system modeling and simulation, dynamic response,</td>
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<td>feedback theory, stability criteria, and compensation design. Prerequisite:</td>
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<td>ECE 383.</td>
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<tr>
<td>ECE 688</td>
<td>Power Electronics (4).</td>
<td>Deals with the applications of solid-state electronics for the control and</td>
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<td>conversion of electric power. Gives an overview of the role of the thyristor</td>
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<td>in power electronics applications and establishes the theory, characteristics</td>
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<td>and protection of the thyristor. Presents controlled rectification, static</td>
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<td>frequency conversion by means of the DC link-converter and the cyclo</td>
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<td>converter, emphasizing frequency, and voltage control and harmonics</td>
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<td>reduction techniques. Also presents requirements of forced commutation</td>
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<td>methods as applied to DC-DC control and firing circuit requirement and</td>
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<td>methods. Introduces applications of power.</td>
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</tbody>
</table>
electronics to control AC and DC motors using new methods such as microprocessor. Prerequisite: ECE 492.

ECE 691. Integrated Electronics (3). A study of BIT and MOS analog and digital integrated circuits. Includes BIT, EBIT, and MOS fabrication; application-specific VLSI circuits; device performance and characteristics; and integrated circuit design and applications. Prerequisites: ECE 494 and 495 or departmental consent.

ECE 688. Principles of Power Distribution (3). The distribution system is a vital contributor to the overall power system function of providing quality electrical service. Provides an overall view of the engineering fundamentals of distribution system. Discusses distribution system planning and automation; primary and secondary distribution networks. Presents voltage regulation, protection, and reliability. Prerequisite: ECE 598 or departmental consent.

ECE 726. Digital Communication Systems I (3). Discusses system fundamentals of digital communication systems. Includes the modeling and analysis of information sources as discrete processes; basic source and channel coding; multiplexing and framing; spectral and time domain considerations related to ASK, FSK, DQPSK, QPSK, and other techniques appropriate for communicating digital information in both baseband and bandpass systems; intersymbol interference; effects of noise on system performance; optimum systems; and general many digital systems in signal space. Prerequisites: ECE 586 and 754.

ECE 756. Data Communication Networks (3). Presents the theoretical and practical aspects of digital and data communication systems, including the modeling and analysis of information sources as discrete processes, basic source and channel coding, multiplexing and framing, spectral time domain considerations related to ASK, FSK, DQPSK, QPSK, and other techniques appropriate for communicating digital information in both baseband and bandpass systems; intersymbol interference, effects of noise on system performance, optimum systems, and general many digital systems in signal space. Prerequisites: ECE 586 and 754.

ECE 728. Embedded Systems Programming (3). A study of the requirements and design of embedded software systems. Application of the C programming language in the implementation of embedded systems emphasizing real-time operating systems, interfacing to assembly and high-level languages, control of external devices, task control, and interrupt processing. Prerequisite: ECE 594 or equivalent.

ECE 744. Introduction to VHDL (3). An introduction to VHSC hardware description language. Includes different types of modeling techniques using state-of-the-art CAD tools. Covers extensively behavioral modeling, structural modeling, and data-flow modeling. Design assignments include design and simulation of both combinational and sequential circuits using VHDL. Prerequisites: ECE 138 and 394.

ECE 754. Probabilistic Methods in Systems (3). A course in random processes designed to prepare the student for work in communications controls, computer systems information theory, and signal processing. Covers basic concepts and useful analytical tools for engineering problems involving discrete and continuous-time random processes. Discusses applications to system analysis and identification, analog and digital signal processing, data compression parameter estimation, and related disciplines. Prerequisites: ECE 393 and either STAT 416 or EIN 254.

ECE 764. Routing and Switching I (4, 3R, 3L). An introductory course which studies different hardware technologies like Ethernet and token ring. Discusses VLSI. Introduces different routing protocols. Includes hands-on experience in the ECE department's routing and switching lab. Prerequisite: ECE 736 or departmental consent.

ECE 777. Selected Topics in Electrical Engineering (1-4). New or special courses presented on sufficient demand. Repeatable for credit. Prerequisite: departmental consent.

ECE 780. Analog Filters (3). A detailed study of analog filter design methods. Includes both passive and active filters. Discusses analog filter approximations: covers sensitivity and noise analyses. Prerequisite: ECE 383 and 492.

ECE 782. Digital Signal Processing (3). Presents the fundamental concepts and techniques of digital signal processing. Time domain operations and techniques include difference equations and convolution summation. Covers Z-transform methods, frequency-domain analysis of discrete-time signals and systems, discrete Fourier transform, and fast Fourier transform. Emphasizes the frequency response of discrete-time systems and the relationship to analog systems. Prerequisite: ECE 383 or departmental consent.

ECE 790. Independent Study in Electrical Engineering (1-3). Arranged individual, independent study in specialized content areas in electrical engineering under the supervision of a faculty member. Repeatable for credit. Prerequisite: departmental consent.


ECE 797. Computer Application to Power System Analysis (3). Describes the use of power system component models and efficient computational techniques in the development of a new generation of computer programs representing the steady and dynamic states of electric power systems and forms of methods currently employed in the electric utility industry. Emphasizes algorithms suitable for computer solution of power systems problems such as power flows and system voltages during normal and emergency conditions and transient behavior of the system resulting from fault conditions and switching operations. Prerequisite: ECE 598.

ECE 798. Advanced Electric Power Systems Analysis (3). Advanced topics in analysis and operation of electric utility power systems. Topics include faulted system analysis, economic dispatch, generator modeling, power system stability, and system protection. Prerequisite: ECE 598.

Please see the Graduate Catalog for courses numbered 800 and above.

**Industrial and Manufacturing Engineering (IMfGE)**

The industrial and manufacturing engineering (IMfGE) department at WSU takes responsibility for instruction and research in design, analysis, and operation of manufacturing and other integrated systems of people, material, equipment, and capital. The department offers curricula and educational experiences designed and continuously improved through the involvement and contribution of its constituents: students and alumni, potential employers of program graduates and faculty.

The IMfGE department offers two undergraduate degree programs, one in industrial engineering (BSfE) and another in manufacturing engineering (BSMfGE). Both degree programs are accredited by the Engineering Accreditation Commission of the Accreditation Board for Engineering and Technology (EAC/ABET).

The department also offers three graduate degree programs: Master of Engineering Management (MEM), MS in IE, and PhD in IE. Both the MSIE and PhD programs allow concentrations in engineering systems, ergonomics/human factors engineering, and manufacturing systems engineering. The MEM program is geared toward helping engineers/technologists develop planning, decision making, and management skills while receiving advanced technical knowledge.

The department also offers graduate certificate programs in the following five areas: systems engineering and management, computer-aided design and manufacturing, industrial ergonomics and safety, production systems, and quality engineering and management.

Modern, well-equipped laboratories are available to supplement classroom theory in ergonomics, manufacturing engineering, and computer analysis. The department's laboratory facilities include Cessna
Manufacturing Processes Lab, Graphics Lab, Metrology Lab, Computer Integrated Manufacturing Lab, Automation and Controls Lab, Virtual Reality Development Labs, Ergonomics Lab, and Open Computing Lab. Students in the academic programs offered by the industrial and manufacturing engineering department get ample opportunity to work on real-life problems in local industries as part of course requirements.

Bachelor of Science Degree in Industrial Engineering

Industrial engineers apply scientific knowledge to solve problems in manufacturing and other industries, businesses, and institutions, focusing on productivity improvement through better use of human resources, financial resources, natural resources, and man-made structures and equipment. IEAs apply a full range of analytical, simulation, and experimentation tools to problems in designing, planning, implementing, and operating systems. These problems are found in a wide variety of service organizations (such as banks, hospitals, social services, and government agencies), project-based firms (such as construction and consulting), and product-based firms (such as processing, manufacturing, and electronics). The focus of industrial engineering is systems integration and improvement.

Program Educational Objectives

Educational objectives of the industrial engineering program are driven by WSU's mission as a metropolitan university. Specifically, our IE program educational objectives are:

1. A majority of our graduates will be employed in jobs related to design, planning, and control, implementation, and improvement of manufacturing processes.
2. Some of the graduates will pursue graduate studies in engineering or business.
3. Graduates will enjoy professional success because of the program's emphasis on solving real-world problems in industries and organizations in the metropolitan area.

Sequence of Courses

The BS in manufacturing engineering program requires the completion of 128 semester hours for graduation, minus hours commensurate with advanced placement credit. Students may select 9 hours of technical electives to emphasize their study of advanced manufacturing engineering concepts and related topics in other engineering disciplines. Selection of appropriate courses would allow the students to tailor their study to fit their individual interests and needs. Students' programs of study are determined in consultation with their faculty advisors.

Specific requirements for the manufacturing engineering program are given below.

Manufacturing Engineering

Course

<table>
<thead>
<tr>
<th>Course</th>
<th>Hrs.</th>
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<tbody>
<tr>
<td>General Education Courses</td>
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<tr>
<td>Basic Skills:</td>
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<tr>
<td>ENGL 101/102, College English I &amp; II</td>
<td>6</td>
</tr>
<tr>
<td>COMM 111, Public Speaking</td>
<td>3</td>
</tr>
<tr>
<td>PHIL 265 Engineering Ethics</td>
<td>3</td>
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<tr>
<td>Fine arts, social/behavioral sciences, and humanities courses</td>
<td>15</td>
</tr>
<tr>
<td>Mathematics/Natural Sciences:</td>
<td></td>
</tr>
<tr>
<td>MATH 242, 243 &amp; 344, Calculus I, II, &amp; III</td>
<td>13</td>
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<tr>
<td>MATH 511, Linear Algebra</td>
<td>3</td>
</tr>
<tr>
<td>PHYS 313 &amp; 314, University Physics I &amp; II</td>
<td>8</td>
</tr>
<tr>
<td>CHEM 111, General Chemistry</td>
<td>5</td>
</tr>
<tr>
<td>IEN 254, Engineering Probability and Stats.</td>
<td>3</td>
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<tr>
<td>Engineering Core Courses:</td>
<td></td>
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<tr>
<td>AE 223, Statics</td>
<td>3</td>
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<tr>
<td>ECE 282, Circuits I</td>
<td>4</td>
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<tr>
<td>IEN 253, Engineering Economy</td>
<td>4</td>
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<tr>
<td>ME 308, Thermodynamics</td>
<td>3</td>
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<tr>
<td>Major Courses:</td>
<td></td>
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<tr>
<td>ECE 138, Engineering Computing in C</td>
<td>3</td>
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<tr>
<td>IEN 222, Engineering Graphics</td>
<td>3</td>
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<tr>
<td>IEN 452, Work Systems</td>
<td>3</td>
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<tr>
<td>IEN 524, Engineering Probability and Stats II</td>
<td>3</td>
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<tr>
<td>IEN 549, Industrial Ergonomics</td>
<td>3</td>
</tr>
<tr>
<td>IEN 570, Operations Research</td>
<td>3</td>
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<tr>
<td>IEN 553, Production Systems</td>
<td>3</td>
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<tr>
<td>IEN 554, Statistical Quality Control</td>
<td>3</td>
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<tr>
<td>IEN 556, Information Systems</td>
<td>3</td>
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<tr>
<td>IEN 563, Facilities Planning</td>
<td>3</td>
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<tr>
<td>IEN 565, Systems Simulation</td>
<td>3</td>
</tr>
<tr>
<td>IEN 580 &amp; 690, IE Design I &amp; II</td>
<td>6</td>
</tr>
<tr>
<td>ME 250, Materials Engineering</td>
<td>3</td>
</tr>
<tr>
<td>MFG E 258, Mfg. Methods &amp; Materials I</td>
<td>3</td>
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<tr>
<td>Technical Electives</td>
<td>12</td>
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</tbody>
</table>

* Refer to graduation requirements at the beginning of this section for details.
** At least 6 hours must be from the MFG E department and the rest from a departmentally approved list.

Bachelor of Science Degree in Manufacturing Engineering

Manufacturing engineering is concerned with converting raw materials and intermediate products into final and other intermediate products through the use of various design, processing, assembly, and automation techniques as well as the design and manufacturing of tools, jigs, and machines used in these processes. The strength of the BS in manufacturing engineering at Wichita State is its emphasis on the following three manufacturing engineering areas: materials and processes; product engineering and assembly; and manufacturing quality and productivity. Manufacturing engineers can apply their broad and comprehensive skills in a wide spectrum of industries.

Program Educational Objectives

Educational objectives of the manufacturing engineering program are driven by WSU's mission as a metropolitan university. Specifically, our MFG E program educational objectives are as follows:

1. A majority of our graduates will be employed in jobs related to design, planning and control, implementation, and improvement of manufacturing processes.
2. Some of the graduates will pursue graduate studies in manufacturing engineering.
3. Graduates will enjoy professional success because of the program's emphasis on solving real-world problems in industries and organizations in the metropolitan area.

Sequence of Courses

The BS in manufacturing engineering program requires the completion of 128 semester hours for graduation, minus hours commensurate with advanced placement credit. Students may select 9 hours of technical electives to emphasize their study of advanced manufacturing engineering concepts and related topics in other engineering disciplines. Selection of appropriate courses would allow the students to tailor their study to fit their individual interests and needs. Students' programs of study are determined in consultation with their faculty advisors.

Specific requirements for the manufacturing engineering program are given below.

Manufacturing Engineering

Course

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<td>IEN 452, Work Systems</td>
<td>3</td>
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<tr>
<td>IEN 524, Engineering Probability and Stats II</td>
<td>3</td>
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<tr>
<td>IEN 549, Industrial Ergonomics</td>
<td>3</td>
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<tr>
<td>IEN 570, Operations Research</td>
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* Refer to graduation requirements at the beginning of this section for details.
** At least 6 hours must be from the MFG E department and the rest from a departmentally approved list.
Industrial Engineering (IEN)

Lower-Division Courses

IEN 101. Introduction to Industrial and Manufacturing Engineering (3). Cross-listed as MFGE 101. An introduction and overview of the discipline areas within industrial and manufacturing engineering. Combines design, case study, and hands-on experience with lectures on the different emphasis areas.

IEN 150. Workshop in Industrial Engineering (1-3). Offered from time to time on various topics in industrial engineering.

IEN 222. Engineering Graphics (3), (1R): 3L. Uses computer graphics to produce technical drawings and solve engineering design problems. Studies basic spatial relationships involving orthographic projections, auxiliary views, and pictorial projections. Design implementation includes dimensioning, tolerancing, sectional views, thread fasteners, blueprint reading, and working drawings. Also uses descriptive geometry to find true lengths of lines; spatial relationships between points, lines, and planes and intersections of solids, surfaces, and conic sections. Prerequisite: MATH 123 or equivalent.

IEN 250. Topics in Engineering Graphics (2), (1R): 3L. The application of engineering graphics to the study of special problems and to methods of conveying information. Prerequisite: IEN 222.


IEN 255. Engineering Economy (3). Economic comparisons of engineering alternatives considering the time value of money, taxes, and depreciation; accounting and its relationship to economic analysis and replacement decisions. Prerequisite: MATH 243.

IEN 281P. Co-op Education (1). Introduces the student to engineering practice by working in industry in an engineering-related job and provides a planned professional experience designed to complement and enhance the student's academic program. Individualized programs must be formulated in consultation with, and approved by, appropriate faculty sponsors and cooperative education coordinators. Intended for students who will be working full time on their Co-op assignment and need not be enrolled in any other course. May be repeated. Offered CR/NC only. Prerequisite: 26 Hours toward bachelor of science in industrial engineering degree and approval by appropriate faculty sponsor.

Upper-Division Courses

IEN 452. Work Systems (3). The documentation, measurement, and design of work systems. Includes work measurement systems, methods engineering, work sampling, predetermined time systems, and economic justification. Prerequisites: IEN 254 and 255.

IEN 480. Selected Topics in Industrial Engineering (1-4). New or special course material presented upon sufficient student demand. Repeatable for credit. Prerequisite: departmental consent.

IEN 481P. Co-op Education (1). See IEN 281P. Prerequisites: junior standing and approval by appropriate faculty sponsor.

IEN 490. Independent Study (1-3). Arranged individual independent study in specialized areas of industrial engineering under the supervision of a faculty member. May be repeated for credit. Prerequisite: consent of supervising faculty member.

Courses for Graduate/Undergraduate Credit

IEN 524. Engineering Probability and Statistics II (3). A study of hypothesis testing, regression analysis, analysis of variance, correlation analysis, and design of experiments emphasizing applications to engineering. Prerequisite: IEN 254 or STAT 471.


IEN 554. Statistical Quality Control (3). A study of the measurement and control of product quality using statistical methods. Includes acceptance sampling, statistical process control, and total quality management. Prerequisite: IEN 524.

IEN 556. Information Systems (3). Provides a basic understanding of information systems in a modern enterprise, including database design, information technology, and ethics using hands-on activities and directed classroom discussion. Prerequisites: IEN 452 and ECE 138.

IEN 557. Safety Engineering (3). Environmental aspects of accident prevention, industrial compensation, and safety legislation. Fundamental concepts of occupational health and hygiene. Prerequisite: IEN 254 or STAT 471.

IEN 563. Facilities Planning and Design (3). Quantitative and qualitative approaches to problems in facilities planning and design, emphasizing activity relationships, space requirements, materials handling and storage, and plant layout. Prerequisites: IEN 550 and MFGE 258. Corequisite: IEN 452.


IEN 590. Industrial Engineering Design I (3). An industry-based team design project utilizing industrial engineering principles performed under faculty supervision. May not be counted toward graduate credit. May not get credit in both IEN 590 and MFGE 590. Prerequisites: complete at least two of the following courses (IEN 519, 553, 563) and be within two semesters of graduation.

IEN 664. Engineering Management (3). An introduction to the design and control of technology-based projects. Considers both the theoretical and practical aspects of systems models, organizational development, project planning and control, resource allocation, team development, and personal skill assessment. Prerequisites: IEN 254 and 255.

IEN 690. Industrial Engineering Design II (3). Continuation of the design project initiated in IEN 590 or the performance of a second industrial engineering design project. May not be counted toward a graduate industrial engineering major. May not get credit in both IEN 690 and MFGE 690. Prerequisites: IEN 590 and departmental consent.

IEN 724. Statistical Methods for Engineers (3). For graduate students majoring in engineering. Students study and model real-life engineering problems and draw reliable conclusions through applications of probability theory and statistical techniques. Cannot be used to fulfill degree requirements for the BS degree in industrial and manufacturing engineering. Prerequisite: MATH 243.


IEN 740. Analysis of Decision Processes (3). Decision analysis as it applies to capital equipment selection and replacement, process design, and policy development. Explicit consideration of risk, uncertainty, and multiple attributes as developed and applied using modern computer-aided analysis techniques. Prerequisites: IEN 254 and 255.

IEN 749. Advanced Ergonomics (3). A continuation of IEN 549. Includes principles and application of human factors to the design of the workplace, displays, control systems, hand tools, and video display terminals. Prerequisite: IEN 549.

IEN 750. Industrial Engineering Workshops (1-4). Various topics in industrial engineering. Prerequisite: departmental consent.

IEN 754. Reliability and Maintainability Engineering (3). Studies problems of quantifying, assessing, and verifying reliability. Presents various factors that determine the capability of components emphasizing practical applications. Example
and problems cover a broad range of engineering fields. Prerequisite: IEN 524.

IEN 785. Design of Experiments (3). Application of analysis of variance and experimental design for engineering studies. Includes general design methodology, single-factor designs, randomized blocks, factorial designs, fractional replication, and confounding. Prerequisite: IEN 524 or instructor's consent.


IEN 790. Ergonomics Topics (3). New or special courses on topics in ergonomics and human factors engineering. May be repeated for different topics. Prerequisite: departmental consent.

IEN 794. Systems Engineering and Analysis (3). Presentation of system design process from the identification of a need through conceptual design, preliminary design, detail design and development, and system test and evaluation. Studies operational feasibility, reliability, maintainability, supportability, and economic feasibility. Prerequisites: IEN 254 and 255.

IEN 760. Industrial Automation (3). Introduction to the integration of industrial and manufacturing automation. Combines design, case study, and hands-on experience with lectures on the different emphasis areas.

MFG E 101. Introduction to Industrial and Manufacturing Engineering (1). Cross-listed as IENG 101. An introduction and overview of the disciplines within industrial and manufacturing engineering. Combines design, case study, and hands-on experience with lectures on the different emphasis areas.

MFG E 258. Manufacturing Methods and Materials I (3). Introduces an understanding of materials and processes used to manufacture products. Some of the major manufacturing processes covered include metal machining, metal forming, extrusion, casting, joining, and plastics forming. Emphasizes the use of materials, sciences and mathematics to understand the behavior of materials undergoing the manufacturing process. Includes an introduction to process planning. Students gain an extensive hands-on experience in different manufacturing processes and in teamwork. Prerequisite: ECE 138 or knowledge of a programming language.

MFG E 490. Independent Study (1-3). Arranged individual independent study in specialized areas of industrial engineering under the supervision of a faculty member. May be repeated for credit. Prerequisite: consent of supervising faculty member.

Courses for Graduate/Undergraduate Credit

MFG E 502. Manufacturing Measurement Analysis (3). Covers methods for measurement and analysis of variables in the production of industrial parts. Topics include basic principles of measurement, data acquisition, data analysis, dimensional measurement techniques, basic understanding and evaluation of Gage R&R, force, temperature, surface finish measurement, principles of gage design, gage capability studies, process capability studies, and sampling techniques. Includes a laboratory component to familiarize students with different kinds of measurement devices such as CMM, non-contact optical measurement devices, surface profilometer, optical flats, and automatic data collection. Prerequisites: IEN 254 and MFG E 258.

MFG E 545. Manufacturing Systems (3). Cross-listed as IEN 555. A study of the design, planning, implementation, and control of manufacturing systems. Discusses types of manufacturing systems, material requirement planning, capacity planning, facilities planning, scheduling, and an introduction to computer-aided process planning. Prerequisite: MFG E 258.

MFG E 554. Manufacturing Tools (3). Introduces the principles behind the design and fabrication of machine tools and production tooling. Discusses tool materials, machine tool kinematics, accuracy, instrumentation, and control, and designing fixtures and jigs. Includes an introduction to design of inspection tools, machine and press working tools, and modular fixturing. Application of theories to labs and design problems. Prerequisite: MFG E 258. Corequisite: AE 223.

MFG E 558. Manufacturing Methods and Materials II (3). Cross-listed as IENG 258. Covers the theoretical and practical aspects of manufacturing processes, including material properties and behavior as influenced by the manufacturing process. In-depth study of such manufacturing processes as casting, heat treatment, bulk forming, sheet metal forming, metal cutting, non-traditional machining, and process monitoring through measurement of manufacturing process variables. Also includes laboratory experience and plant tours. Prerequisites: MFG E 258 and ME 250.

MFG E 590. Manufacturing Engineering Design I (3). First of two capstone design project courses utilizing manufacturing engineering principles, performed under faculty supervision, for solving practical problems. May not be counted toward a graduate industrial engineering major. May not get credit in both IEN 590 and MFG E 590. Prerequisites: must be within one year of graduation and departmental consent.

MFG E 622. Computer-Aided Design and Manufacturing (3). Introduction to 3-D computer graphics. Discusses concepts of CAD/CAM/CIM, design theory, automation, and knowledge-based CAD systems. Examines the basic principles of computer-aided manufacturing, NC programming, and CAD/CAM integration. Describes the design interchange standards and the interface between CAD and CAM. Prerequisites: IEN 222 and ECE 138 or equivalent.

MFG E 654. Nontraditional Machining Processes (3). A study of the role and economics of nontraditional processes use of laser and electron beams in inspection and measurement; heat treatment; material removal; material joining; and coating. Also covers the fundamentals of electro-discharge machining, electro-chemical machining, chemical milling, and water-jet machining. Prerequisite: MFG E 558.

MFG E 658. Forming Processes (3). Introduction to the fundamentals of deformation and techniques for analysis of forming processes. Application to various bulk forming and
sheet metal forming processes. Introduction to applied nonlinear finite element analysis and its application for analysis and design of forming processes. Prerequisite: AE 331.

MFG E 690. Manufacturing Engineering Design II (3). Continuation of the project initiated in MFG E 590 or a second industry-based design project. May not be counted toward a graduate industrial engineering major. May not get credit in both IEN 690 and MFG E 690. Prerequisites: MFG E 590 and departmental consent.

Mechanical Engineering (ME)
Mechanical engineering is one of the broadest engineering fields. Mechanical engineers are found in virtually all productive industries, from aircraft and automotive to consumer products and building equipment. In these jobs, mechanical engineers design products, machines, and processes for manufacturing. They analyze, test, and develop these products, machines and manufacturing processes to attain the best performance and durability within cost and time limits. Examples of specific mechanical engineering jobs include:

- design, development, and manufacturing of automotive-engine and vehicle systems;
- design, development, and manufacturing of gas turbine and other aircraft engines;
- design and construction of electrical power plant energy conversion and generating systems;
- design, development, and manufacturing of consumer products, ranging from appliances such as refrigerators, washers, and electric drills, to the manufacturing systems for producing facial tissue and processed foods and packaging of these items;
- design and specification of heating, air-conditioning, and ventilating systems used in aircraft, automobiles, and buildings;
- analysis of the complex flow of gases and fluids such as air flow in aircraft inlet ducts and fluid flow in hydraulic and pumping systems;
- study of heat flow, ranging from boilers and automotive radiators to heat management problems in orbiting spacecraft.

The mechanical engineering program prepares students for these job possibilities, as well as possible entry to graduate school for those so inclined. This is accomplished through a broad course of study that covers not only the technical aspects required, but the ethical, professional, and communications skills needed to be a successful practicing engineer. The program includes components in mathematics and natural science, written and oral communications skills, humanities and social sciences, a core of engineering science subjects, and a specified set of required technical courses covering the basic areas of mechanical engineering. In addition, students select elective courses that allow them to develop specialized knowledge in areas such as robotics, manufacturing, entrepreneurship, biomechanics, materials science and behavior, heat transfer, and energy conversion. Modern laboratories and a wide variety of computer facilities provide students with hands-on experience in experimental work and computer-aided design and engineering.

Bachelor of Science Degree in Mechanical Engineering

Educational Objectives
1. Prepare students for employment as mechanical engineers;
2. Enable interested students to pursue graduate education;
3. Utilize the unique opportunities of a metropolitan location to provide graduates with industry-based project experiences.

Sequence of Courses
The program requires the completion of 128 semester hours for graduation, minus hours commensurate with advanced placement credit. Specific degree requirements are given below.

Mechanical Engineering
Course

<table>
<thead>
<tr>
<th>General Education Courses</th>
<th>Hrs.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Basic Skills:</td>
<td></td>
</tr>
<tr>
<td>ENGL 101/102, College English I &amp; II</td>
<td>6</td>
</tr>
<tr>
<td>COMM 111, Public Speaking</td>
<td></td>
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<tr>
<td>PHYS 185 Engineering Ethics</td>
<td></td>
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<tr>
<td>ENGL 101/102, College English I &amp; II</td>
<td>6</td>
</tr>
<tr>
<td>Other fine arts/humanities &amp; social/behavioral science courses</td>
<td>15</td>
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</tbody>
</table>

Mathematics/Natural Sciences

<table>
<thead>
<tr>
<th>Course</th>
<th>Hrs.</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH 242, 243 &amp; 344 Calculus I, II &amp; III</td>
<td>13</td>
</tr>
<tr>
<td>MATH 555, Differential Equations I</td>
<td>3</td>
</tr>
<tr>
<td>PHYS 313 &amp; 314, University Physics I &amp; II</td>
<td>8</td>
</tr>
<tr>
<td>PHYS 359Q, University Physics I Lab</td>
<td>1</td>
</tr>
<tr>
<td>CHEM 111, General Chemistry</td>
<td>5</td>
</tr>
<tr>
<td>Natural Science Elective**</td>
<td>3</td>
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</tbody>
</table>

Engineering Core Courses

<table>
<thead>
<tr>
<th>AE 223, Statics</th>
<th>3</th>
</tr>
</thead>
<tbody>
<tr>
<td>ECE 282, Circuits I</td>
<td>4</td>
</tr>
<tr>
<td>IEN 255, Engineering Economy</td>
<td>3</td>
</tr>
<tr>
<td>ME 399, Thermodynamics I</td>
<td>3</td>
</tr>
<tr>
<td>AE 333, Mechanics of Materials</td>
<td>3</td>
</tr>
<tr>
<td>AE 373, Dynamics</td>
<td>3</td>
</tr>
<tr>
<td>IEN 222, Engineering Graphics</td>
<td>3</td>
</tr>
<tr>
<td>ME 325, Computer Applications</td>
<td>3</td>
</tr>
<tr>
<td>ME 339, Elements of ME Design</td>
<td>3</td>
</tr>
<tr>
<td>ME 439, Mechanical Engineering Design I</td>
<td>3</td>
</tr>
<tr>
<td>ME 502, Thermodynamics II</td>
<td>3</td>
</tr>
<tr>
<td>ME 521, Fluid Mechanics</td>
<td>3</td>
</tr>
<tr>
<td>ME 522, Heat Transfer</td>
<td>3</td>
</tr>
<tr>
<td>ME 533 Mechanical Engineering Elective**</td>
<td>3</td>
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<tr>
<td>Mechanical Design Elective**</td>
<td>3</td>
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<tr>
<td>Thermal Design Elective**</td>
<td>3</td>
</tr>
<tr>
<td>ME 659, Mechanical Control</td>
<td>3</td>
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<tr>
<td>Mechanical Engineering Elective</td>
<td>3</td>
</tr>
<tr>
<td>ME 646, Mechanical Engineering Systems Lab</td>
<td>3</td>
</tr>
<tr>
<td>ME 662, Mechanical Engineering Practice</td>
<td>3</td>
</tr>
</tbody>
</table>

Refer to graduation requirements at the beginning of this section for details.
** Must be chosen with advisor’s approval or from a departmentally approved list.

Lower-Division Courses

ME 101. Introduction to Machines and Design (2). Students participate in mechanical dissection where they disassemble and reassemble a machine to learn how it operates and develop an understanding of mechanical devices. The knowledge and experience from the mechanical dissection forms the basis for an introduction to the design process. Student groups design and build a mechanical device to perform some task in the design project. Prerequisite: mechanical engineering major declared or departmental consent.

ME 150. Workshop in Mechanical Engineering (1-3). Provides specialized instruction in areas relevant to mechanical engineering. Variable format. Repeatable for credit.

ME 250, Materials Engineering (3). Studies important structural materials used in engineering, including metals, polymers, and composites, primarily from a phenomenological viewpoint. Prerequisites: CHEM 111, MATH 242.

ME 251. Materials Engineering Laboratory (1). Laboratory course to ME 250. Experimental study of important structural materials used in engineering, including metals, polymers, and composites. Corequisite: ME 250.

Upper-Division Courses

ME 325. Computer Applications (3). Introduces the essential computer tools necessary for the mechanical engineering (ME) curriculum. Covers basic word processing and spreadsheet skills, C programming language as applied to ME problems. Also covers Matlab. Includes fundamentals of linear algebra and other computational tools. Prerequisite: MATH 243.


ME 353. Selected Topics in Mechanical Engineering (1-3). New or special topics presented on sufficient demand. Repeatable for credit when subject material warrants. Prerequisites: as published or departmental consent.

ME 388. Thermodynamics I (3). An introduction to the terminology and analysis techniques specific to thermodynamics centered around a study of the First and Second Laws of Thermodynamics. Prerequisites: MATH 243 and PHYS 313.

ME 399. Mechanical Engineering Design I (3). Principles of mechanical design, emphasizing practice in the application of many mechanical design elements: shafts, bearings, gears, brakes, clutches, threads, fasteners, etc. Includes machine elements design, materials selection, fatigue, stress concentration, statistical concepts, and cost standardization. Innovative prac-
ME 452. Selected Topics in Mechanical Engineering (1-3). New or special topics presented on sufficient demand. Repeatable for credit when subject material warrants. Prerequisites: departmental consent.

ME 453. Technical Entrepreneurship (3). A junior/senior level course which carries design credit and integrates into the design process topics of technical entrepreneurship. The engineering student gains an appreciation for issues faced by a business in bringing a new or improved design to the marketplace. Also the student is encouraged to 'take the next step' toward taking their own engineering ideas beyond the prototype stage and to the marketplace. Exposes the student to a wide range of business topics including market gap analysis, financial planning, incentive programs, personnel decision making, and business plan preparation, in addition to standard engineering topics. Prerequisites: junior/senior standing in an engineering or instructor's consent.

ME 469. Energy Conversion (3). Energy conversion principles and their implementation in engineering devices including thermal, mechanical, nuclear, and direct energy conversion processes. Prerequisite: ME 398.

ME 481A. Co-op Education (3). Introduces the student to engineering practice by working in industry in an engineering-related job and provides planned professional experience designed to complement and enhance the student's academic program. Individualized programs must be formulated in consultation with, and approved by, appropriate faculty sponsors and cooperative education coordinators. Intended for students who will be working full-time on their Co-op assignment and need not be enrolled in any other course. Prerequisites: junior standing and approval by the appropriate faculty sponsor. May be repeated. Offered Cr/NC only.

ME 481F. Co-op Education (1). Introduces the student to engineering practice by working in industry in an engineering-related job and provides planned professional experience designed to complement and enhance the student's academic program. Individualized programs must be formulated in consultation with, and approved by, appropriate faculty sponsors and cooperative education coordinators. Intended for students who will be working part-time on their Co-op assignment and be currently enrolled in courses leading to a mechanical engineering degree. Prerequisites: junior standing and approval by the appropriate faculty sponsor. May be repeated. Offered Cr/NC only.

Courses for Graduate/Undergraduate Credit

The courses numbered 502 through 769 are not automatically applicable toward an advanced degree in engineering. They must be approved by the student's advisor, the graduate coordinator, and the chairperson of the department. Courses required for the BS degree normally are not permitted for use toward the graduate degree in mechanical engineering.

ME 502. Thermodynamics II (3). Continuation of ME 398, emphasizing cycle analysis, thermodynamic property relationships, and psychrometrics, with an introduction to combustion processes and chemical thermodynamics. Prerequisite: ME 398 with a grade of C or better.

ME 521. Fluid Mechanics (3). Fluid statics. Basic equations of fluid mechanics. Study of flow in closed conduits and over immersed bodies. Includes compressible flow, turbomachinery, and measurements in fluid mechanics. Prerequisite: ME 398 with C or better and MATH 335 and AE 373.

ME 522. Heat Transfer (3). Temperature fields and heat transfer by conduction, convection, and radiation. Steady and transient multidimensional conduction, free and forced convection, and combined heat transfer. Discusses various analytical methods, analogies, numerical methods, and approximate solutions. Prerequisite: ME 521.

ME 533. Mechanical Engineering Laboratory (3). 2R: 3L. Introduces the basics of engineering measurements. Discusses related theory, followed by applications in such areas as strain, sound, temperature, and pressure measurements. Format includes lectures, recitation (which presents the concept of the experiment to be performed and the required data analysis), and laboratories. Analyzes the data obtained from measuring systems set up and operated in the laboratory to demonstrate and reinforce fundamental concepts of engineering mechanics. Prerequisites: ECE 212 and AE 333. Corequisite: ME 521.

ME 541. Mechanical Engineering Design II (3). Applications of engineering design principles to the creative design of mechanical equipment. Problem definition, conceptual design, feasibility studies, design calculations to obtain creative solutions of current real engineering problems. Introduction to human factors, economics, and reliability theory. Group and individual design projects. Prerequisite: ME 439.

ME 544. Design of HVAC Systems (3). Analysis and design of heating, ventilating, and air-conditioning systems based on psychrometrics, thermodynamics, and heat transfer fundamentals. Focuses on design procedures for space air-conditioning and heating and cooling loads in buildings. Prerequisites: ME 521 and 522 or equivalent.

ME 550. Selected Topics in Mechanical Engineering (1-3). New or special topics are presented on sufficient demand. Repeatable for credit when subject material warrants. Prerequisite: departmental consent.

ME 562. Engineering for the Environment (3). Engineering for the environment, air, water, and noise pollution, and handling of hazardous wastes. Covers briefly the main pollutants, their major sources, their effects, and their attenuation levels set by the U.S. Environmental Protection Agency. Emphasizes engineering systems for pollution control. Prerequisites: ME 398, AE 223, IEN 255, or departmental consent.

ME 561. Heat Exchanger Design (3). Covers analytical models for forced convection through tubes and over surfaces, experimental correlations for the Nusselt number and pressure drop of single and multiple pass shell and tube heat exchangers; compact baffled, direct contact, plate, and fluidized bed heat exchangers; radiators, recuperators, and regenerators. Prerequisites: ME 521 and 522, or equivalent.

ME 563. Mechanical Engineering Systems Laboratory (3). 2R: 3L. Selected experiments illustrate the methodology of experimentation as applied to mechanical and thermal systems. Experiments include the measurement of performance of typical systems and evaluation of physical properties and parameters of systems. Group design and construction of an experiment is an important part of the course. Team and individual efforts are stressed as are written and oral communication skills. Prerequisites: ME 533, ENGL 102.

ME 567. Computer-Aided Engineering (3). 2R: 3L. Integrates computer-aided design, finite element analysis, kinematics analysis, heat transfer analysis, and other considerations for design of mechanical components and systems. Provides a blend of theory and practice. Corequisite: ME 439 or equivalent.

ME 569. Applications of Finite Element Methods in Mechanical Engineering (3). 2R: 3L. Introduces the finite element method (FEM) as a powerful and general tool for solving differential equations, arising from modeling practical engineering problems. Finite element solutions to one- and two-dimensional mechanical engineering problems in fluids, mechanics, heat transfer, solids, mechanics, and vibrations. Includes Galerkin's and variational finite element models. Introduces commercial finite element computer tools such as ALGOR and ANSYS. Prerequisites: ME 439, 522 or equivalent.

ME 561. Thermal Systems Design (3). Modeling, simulation, and optimization tools in the design of thermal systems. Engineering design principles, characteristics of thermal equipment, and economic considerations. Studies open-ended problems, including work on design projects in small groups. Prerequisites: ME 502 and 521.

ME 560. Selected Topics in Mechanical Engineering (1-3). New or special topics are presented on sufficient demand. Repeatable for credit when subject material warrants. Prerequisite: departmental consent.

ME 563. Internal Combustion Engines (3). A broad coverage of the basics of internal combustion engines emphasizing spark ignition and diesel engines. Definition of engine types and configurations and important variables used to evaluate performance and efficiency. Fundamentals learned in thermodynamics, chemistry, and mechanical design are used to understand engine design, performance, and control. Applications discussed are focused primarily on automotive use and involve power output, fuel consumption, and exhaust emissions. Prerequisite: ME 398.

ME 659. Mechanical Control Systems (3).* Modeling and simulation of dynamic systems. Theory and analysis of the dynamic behavior of control systems, based upon the laws of physics and linear mathematics. Concerns classical methods
of feedback control systems and design. Prerequisites: either a) ME 533, ECE 292, and MATH 535 or b) ECE 292.

ME 662. Mechanical Engineering Practice (3). IR, 4L. An exercise in the practice of mechanical engineering; students engage in a comprehensive design project requiring the integration of knowledge gained in prerequisite engineering science and design courses. Team effort and both oral and written presentations are a part of the experience. Prerequisite: mechanical engineering students in their last semester of study.

ME 664. Introduction to Fatigue and Fracture (3). Deals with the primary analytical methods used to quantify fatigue damage. These are the stress-life approach, strain-life approach, and the fracture mechanics approach. Prerequisite: ME 250.

ME 665. Selection of Materials for Design and Manufacturing (3). Focuses on the selection of engineering materials to meet product and manufacturing requirements. Solution to various product and manufacturing problems by appropriate selection of materials is illustrated through the use of numerous examples and case studies. Prerequisites: ME 250, AE 333.

ME 666. Materials in Manufacturing Processes (3). Deals with fundamental principles of materials and their applications to manufacturing processes. Prerequisite: ME 250.

ME 667. Mechanical Properties of Materials I (3). Major focus on deformation mechanisms and on crystal defects that significantly affect mechanical properties. Also covers plasticity theory, yield criteria for multi-axial states of stress, fracture mechanics, and fracture toughness. Includes some review of basic mechanics of materials and elasticity as needed. Prerequisite: ME 250 or departmental consent.

ME 669. Acoustics (3). Fundamentals of acoustics including the study of simple harmonic systems, acoustic waves, transmission phenomena, and environmental and architectural acoustics. Prerequisites: MATH 550, AE 373.

ME 678. Studies in Mechanical Engineering (1-3). Arranged individual, independent study in specialized content areas in mechanical engineering under the supervision of a faculty member. Requires written report or other suitable documentation of work for departmental records. Three (3) hours maximum technical elective credit. Not for graduate credit. Prerequisite: departmental consent.

ME 719. Basic Combustion Theory (3). Introduction to the fundamental principles of combustion processes. Examines the chemistry and physics of combustion phenomena, that is, detonation and flames, explosion and ignition processes. Prerequisites: CHEM 111 and ME 502.

ME 729. Computer-Aided Analysis of Mechanical Systems (3). Modeling and analysis of planar motion for multibody mechanical systems including automatic generation of governing equations for kinematic and dynamic analysis, as well as computational methods and numerical solutions of governing equations. Open-ended student projects on engineering applications such as vehicle ride stability simulations for different terrains. Prerequisites: ME 339, AE 373, and MATH 555.

ME 737. Robotics and Control (3). A systems engineering approach to robotics science and technology. Fundamentals of manipulators, sensors, actuators, and effectors, and product design for automation. Includes kinematics, trajectory planning, control, programming of manipulator, and simulation, along with introduction to artificial intelligence and computer vision. Prerequisite: ME 659 or equivalent.

ME 759. Advanced Machine Design (3). A broad coverage of principles of machine analysis and design of machine elements. Emphasizes dynamic system modeling, prediction of natural frequencies and forced response, effect of support flexibility, failure theories used in design, and fatigue life prediction. Typical mechanical systems studied are gears, bearings, shafts, rotating machinery, and many types of spring-mass systems. Uses fundamentals learned in mechanics, strength of materials, and thermal sciences to understand mechanical system modeling, analysis, and design. Prerequisite: ME 514 or instructor's consent.

ME 747. Microcomputer-Based Mechanical Systems (3). Introduces students to design and implementation of software for real-time control. Includes an introduction to the C programming language which is most relevant to interfacing and implementation of control theory in computer-based systems. Laboratory sessions involve interfacing microcomputers to mechanical systems and software development for control methods such as PID. Prerequisites: ME 659 or instructor's consent.

ME 750. Special Topics in Mechanical Engineering (1-3). New or special topics are presented on sufficient demand. Repeatable for credit when subject material warrants. Prerequisite: departmental consent.

ME 755. Intermediate Thermodynamics (3). Laws of thermodynamics, introduction to statistical concepts of thermodynamics, thermodynamic properties, chemical thermodynamics, Maxwell's relations. Prerequisite: ME 502 or departmental consent.

ME 759. Neural Networks for Control (3). Introduces specific neural network architectures used for dynamic system modeling and intelligent control. Includes theory of feed-forward, recurrent, and Hopfield networks; applications in robotics, aircraft and vehicle guidance, chemical processes, and optimal control. Prerequisite: ME 659 or departmental consent.

ME 760. Fracture Mechanics (3). Covers fracture mechanics in metals, ceramics, polymers, and composites. Suitable for graduate and undergraduate study in metallurgy and materials, mechanical engineering, civil engineering, and aerospace engineering where a combined materials-fracture mechanics approach is stressed. Prerequisite: ME 250 or departmental consent.

ME 762. Polymeric Composite Materials (3). A basic understanding and knowledge about the structure and mechanical properties of polymeric composite materials in detail. Discusses both short fiber and continuum fiber composites. Emphasizes special design considerations for composite materials, including fracture mechanics and performance of composites under adverse conditions (fatigue and impact). Prerequisite: ME 250 or equivalent or departmental consent.

ME 764. Thermodynamics of Solids (3). Presents basic thermodynamic concepts which will form the working tools throughout the course. Emphasizes the interpretation of certain types of phase diagrams—not upon the use of thermodynamic stability to assist phase diagram construction but upon the use of phase diagrams to obtain thermodynamic quantities. Also, the thermodynamics of defects and defect interactions in metals, ceramics, polymers, elemental semiconductors, and compounds. Prerequisites: ME 250 and 396 or departmental consent.

ME 766. SEM and EDAX (3). Introduces Scanning Electron Microscopy (SEM), a powerful tool in materials science and engineering which can be used to analyze structural defects in materials. Discusses both the theory and experimental methods, as well as the application of these methods. Prerequisite: ME 250 or departmental consent.

ME 767. X-Ray Diffraction (3). Theory of X-ray diffraction, experimental methods, and their applications which can include determination of the crystal structure of materials, chemical analysis, stress and strain measurements, study of phase equilibria, measurement of particle size, and determination of the orientation of a single crystal. Prerequisites: ME 250 and AE 333 or departmental consent.

ME 781. Cooperative Education (1-8). A work-related placement with a supervised professional experience to complement and enhance the student's academic program. Intended for master's level or doctoral students in mechanical engineering. Repeatable for credit. May not be used to satisfy degree requirements. Prerequisite: graduate standing, departmental consent, and graduate GPA of 3.00 or above. Offered Cr/NC only.

Normally not permitted for use toward the graduate degree in mechanical engineering.

Please see the Graduate Catalog for courses numbered 800 and above.

The following abbreviations are used in the course descriptions: IR stands for lecture and L for laboratory. For example, 48R; 21L, means 48 hours of lecture and 21 hours of lab.
College of Fine Arts

Elaine Bernstorff, Interim Dean
115 Jardine Hall • (316) WSU-3389
finearts.wichita.edu

The College of Fine Arts is responsible for instruction, scholarly inquiry, performance, teacher education (excepting theater/dance), and applied study in music, dance, theatre, and visual arts. The School of Art and Design, the School of Music, and the School of Performing Arts (Dance, Theatre, and Musical Theatre) offer both general arts study and professional training programs at the undergraduate level; professional degrees are offered at the graduate level.

Students are presented with a complete spectrum of choices according to their interest in professional activities, teaching careers, graduate study, or acquiring an appreciation of the arts. They have the opportunity to explore various art forms as well as to develop their ability to respond to changes and challenges within the world of the arts. The college strives to develop and utilize new artistic techniques, current historical research, and recent technical innovations to achieve these ends.

The School of Music is an accredited member of the National Association of Schools of Music, and the Dance Program is accredited by the National Association of Schools of Dance. Both programs adhere to the standards of the arts. They are to respond to changes and challenges within the world of the arts. The college strives to develop and utilize new artistic techniques, current historical research, and recent technical innovations to achieve these ends.

Graduation Requirements
Students must meet the WSU graduation requirements including a minimum of 45 hours of upper division courses, plus the college requirements described with each program.

General Education Requirements
Basic Skills.................................................................12
English 100 or 101, and 102
Communication 111
Mathematics 111 or 112

Note: All of these courses must be completed with a grade of C or better within a student’s first 48 hours.

Fine Arts and Humanities..............................................12
One introductory course from a fine arts discipline
One introductory course from two humanities disciplines.
One further study course from the same discipline as one of the introductory courses above or an Issues and Perspectives course in fine arts or humanities

Social and Behavioral Sciences.....................................9
One introductory course each from two different social and behavioral science disciplines
One further study course from the same discipline as one of the introductory courses above or an Issues and Perspectives course in social and behavioral sciences

Natural Sciences and Mathematics................................9
One introductory course each from two different natural sciences and mathematics disciplines
One further study course from the same discipline as one of the introductory courses above or an Issues and Perspectives course in natural sciences and mathematics

An Introductory course meets general education objectives and serves as an introduction to the discipline. A Further Study course is taken in a discipline once a student has completed an Introductory course in the same discipline. An Issues and Perspectives course is designed as an interdisciplinary course or is intended to inform students of issues or problems from a disciplinary perspective. Students may take either a second course in a discipline represented by an introduc-
tory course or an Issues and Perspectives course from the division housing that discipline. Students must complete at least one and not more than two Issues and Perspectives courses to fulfill General Education Program requirements. Courses within the student's major discipline do not count toward General Education Program requirements.

Fine Arts—General (FA)

Lower-Division Course

FA 101, Introduction to the University (3). An elective class which helps the incoming freshman/transfer student make an easier transition to the demands and challenges of a four-year university. Includes personal assessment, time management, learning styles, career exploration, library/study/test-taking skills, and campus policies/procedures and resources. Students taking this class have been shown to do better academically and enjoy their university experience more, and are more likely to complete their degree.

Upper-Division Courses

>FA 301, An Introduction to Entrepreneurship in the Arts (3). General education further study course. Helps students focus on business and marketing aspects of the arts. An examination from the artist's perspective of techniques for launching a career in the arts. Gives attention to elementary concepts of marketing, artistic talents, goal setting, financing, legal issues, and public demographics.

>FA 310, Arts and Technology (3). General education further study course. Multimedia, high technology, fast-paced presentations describing each of the arts disciplines (music, theatre, movies, dance, visual arts) in relation to new technologies. Approaches each discipline from the perspective of performance, pedagogy, and history with presentations on computer hardware and software, synthesizer, audio and video recordings, and CD-ROM. Presents ideas and information on how technology has affected the arts and how the arts have actually affected technology.

FA 483, Cooperative Education (1-9). A field placement which integrates coursework with a planned and supervised professional experience designed to complement and enhance the student's academic program. May be repeated for credit. Prerequisite: satisfactory academic standing prior to the first job assignment.

Course for Graduate/Undergraduate Credit

FA 590, Special Topics in the Fine Arts (1-4). For group instruction. May be repeated for credit. Involves interdisciplinary graduate-level topics with the fine arts (music, art, dance, and theatre). Prerequisite: senior undergraduate or graduate standing or instructor's consent.

School of Art and Design

finearts.wichita.edu/design

Donald Byrun, Chair

The School of Art and Design offers four program areas: graphic design, studio art, art history, and art education. These programs offer professional courses within the BA, and BFA degrees to train and educate art and design majors. Students in academic programs other than art are encouraged to enroll in art history and studio courses to gain an understanding of art and extend their visual literacy.

The programs of study at the School of Art and Design demand from each student the self-discipline needed to expand options while pursuing a chosen direction. Many entering students have not yet identified the art discipline in which they wish to develop their strength. Others enter the school with a clear professional direction. Through structured programs which provide ample opportunity for experimentation, the school meets the needs of all its students.

During the first year of study, the Foundation curriculum develops technical skills. These fundamental skills provide the basis for the development of understanding and creating art forms. The same professional faculty members who teach advanced art courses teach these fundamental skills.

Art students have excellent classroom and laboratory facilities in the McKnight Art Center and renovated Henrietta Annex. The center provides extensive space for exhibiting student work. The Clayton Staples Art Gallery offers guest artist and thematic exhibits in addition to featuring BFA and MFA graduation shows.

At the Edwin A. Ulrich Museum of Art in McKnight Art Center, students can view a wide range of exhibitions and hear a variety of visiting artists and guest lecturers. The Lewis and Selma Miller Fund provides programs of regional and national interest.

Graduation Requirements

Minor in Art

All students except art and design majors may complete 18 credit hours of art and be awarded the Minor in Art. Recommended plans of study for studio art, art history, graphic design, advertising design, or art education are available in the School office, 302 McKnight.

Certificate in Decorative and Ornamental Painting and Design

The 18-credit hour Certificate in Decorative and Ornamental Painting and Design offers introductory studio courses in color theory, drawing, and painting which lead to advanced and terminal project course work in decorative and ornamental media. Students focus on the historical relevance, technical and stylistic influences, aesthetic value, and effective utilization of decorative and ornamental painting and design. Contemporary art, utilitarian art, theatre applications, historical restoration, and preservation of buildings are studied. The certificate is recognized by the National Society of Art and Decorative Painters, Inc.

Bachelor of Arts in Art (FAA)

The School of Art and Design offers a Bachelor of Arts degree (BA) in Art for students who want to combine a broad training in art with a strong liberal arts education and have the opportunity to complete a minor or second major in a discipline other than art and design. The degree also offers students the option of pursuing multiple areas of interest within the art curriculum. After completing the foundation studies curriculum, each student gains experience in 2-D, 3-D, and Design areas, followed by an advanced-level training in one or more areas of emphasis. Specific course requirements beyond the introductory experiences are based on an individual plan of study (normally completed by the end of the sophomore year) that is prepared with the assistance of faculty advisors.

In addition to the University's scholastic, residential
Bachelor of Fine Arts in Graphic Design
The Bachelor of Fine Arts in Graphic Design is the professional degree for students intending to enter the field of visual communication and design. The program provides courses in typography, illustration, photography, book design, advertising, package design, computer graphics, and design theory. In addition to the University's scholastic, residence, and general education requirements, candidates for the BFA in Graphic Design must complete the foundation studies curriculum (19 hours), art history (15 hours), art electives (9 hours), and the concentration (24 hours). The specific requirements for the BFA with a concentration in studio art and art education are described under the appropriate program sections of the Catalog. Model programs of study are available in the School office.

Bachelor of Art Education
(Currently suspended)
Competence in basic studio skills is emphasized in the Bachelor of Art Education (BAE) degree. In addition to the common core of studio skills and general studies, the student electing a career in teaching develops competencies in professional education and in specific studio areas. The professional education component is dealt with in a practical context, relating the learning of educational theories and strategies to the student's day-by-day artistic experiences. Students are provided opportunities for various types of teaching and direct observation through the period of undergraduate art education study.

In addition to meeting the University's scholastic, residence, and general education requirements for graduation, candidates for the BAE must complete the foundation studies curriculum (19 hours), art history (15 hours), introductory art (24 hours), art specialization (9 hours), art education concentration (24 hours), and professional education courses (32 hours). Courses within the art education curriculum fulfill both the University general education requirements for graduation and the Kansas certification requirements for teaching art at the elementary and secondary levels. This degree and curriculum are under revision. Please contact the School of Art and Design for further information.

School Requirements and Course Listings
Foundation Studies (ART F)
The following courses are required of all undergraduate art major students. The foundations studies curriculum (19 hours) as designated in respective BFA or BA programs must be completed by the time students have completed 60 credit hours or junior status or prior to entry to classes where individual courses serve as prerequisites.

Transfer students with 60 hours and Foundation requirement deficiencies must complete course deficiencies no later than two semesters following entry.

Lower-Division Courses

ART F 102. Introduction to Art & Design (2). Introduces the sub-disciplines of art, fundamental concepts in visual art, and resources available in the University and community. Emphasizes lectures and experimental modes of learning. Written assignments introduce students to the formal analysis of works of art and to methods of determining meaning and value in art. Attendance at visual art activities is expected. Co-requirements: ART F 136 and 145.

ART F 103. Introduction to Art and Design Laboratory (1). Taught in conjunction with ART F 102. Co-requirements: ART F 102, 136, and 145.

ART F 136. Foundation Design I (3). An introduction to design for visual communication. A study of the elements of art and the principles of design relating to formal, Gestalt, and conceptual organization of the two-dimensional surface. Includes elements of line, shape, space, texture, and value. Instru­ctional process includes lecture, critique, and supervised studio practice.

ART F 137. Foundation Design II (3). A continuation of ART F 136 emphasizing the study of color including vocabulary, pigment mixing, color organization, and a review of the psychological effects of color as used in visual communications. Instruc­tional process includes lecture, critique, and supervised studio practice. Prerequisite: ART F 136.

ART F 145. Foundation Drawing I (3). Introduction to visual arts concepts, vocabulary, tools, materials, basic drawing skills, and attitudes through the drawing experience. Teaches perceptual skills and the ability to represent objects in space and organize them into a coherent pictorial statement along with technical and expressive competence with a limited range of media. Structured homework assignments.

ART F 146. Foundation Drawing II (3). Reinforcement and elaboration of the concepts studied in ART F 145 through introduction of abstraction, use of color, visualization, and other strategies for manipulating imagery. Students apply concepts to problems associated with composition, imagina­tive reconstructions, and idea generation. Structured homework assignments. Prerequisite: ART F 145.

ART F 189. Foundation 3-D Design (3). Lectures, research, and studio methods on the evolutionary role of three-dimensional design in contemporary society utilizing a variety of combination of materials, techniques, forms, and concepts. Also emphasizes learning to handle equipment and tools properly.
ART F 202. Sophomore Review (3). Designed to assist students in preparing a plan of study for their junior and senior years and to provide structured advising on reaching career goals near the mid-point of their undergraduate studies. Prerequisites: completion of the foundation program (Art F 102, 103, 138, 145, and 159); completion of the General Education Basic Skills requirements, and the completion of or concurrent enrollment in ART H 121 and 122.

Art History (ART H)
The art history program offers the BA degree in art history and also offers support courses for graphic design, art education, studio art, and general education. Students develop a fundamental knowledge of art and architecture within a cultural and historical framework, and an understanding of terms, concepts, and theory relevant to all visual arts studies. Advanced level courses prepare students for professional pursuit of art history, museum studies, conservation, criticism, and art education.

Bachelor of Arts in Art History (FISB)
(Currently Suspended)
The Bachelor of Arts degree in art history has a liberal arts perspective and is the initial professional education that prepares the student for graduate study in art history. The primary emphasis is on the monuments and artists of all major art periods of the past, a broad understanding of the art of the 20th century, and acquaintance with the art history of non-Western cultures. This knowledge is augmented by study in greater depth and precision of several periods in the history of art and concentration in at least one area to the advanced seminar level.

Requirements. A major in art history requires a minimum of 124 credit hours, including the University's General Education Program and 37 hours in art and art history (as described below) with a minimum grade point average of 2.00. In addition, students are required to have a reading proficiency in at least one foreign language to support research through the reading of primary source materials. The language requirement is normally fulfilled in French or German, but Latin or Ancient Greek can be substituted with the advisor’s permission. Each student must complete the Foundation Studies Curriculum (listed below), the Introductory Art History courses, and the Basic Skills components of the General Education Program prior to formal admission in the BA Art History degree program. Art History majors are also encouraged to complete a minor in a related area of the arts, humanities, or social sciences.

Area Hrs. Foundation Studies Curriculum.................10
ART F 102, 103, 138, 145, and 202
Introductory Art History..........................6
ART H 121 and 122
Art History Concentration........................21
4 courses at the 300-level

ART H 426. Seminar: Techniques of Art History 2 courses at the 500-level
Electives.................................................45
Electives selected from courses from any university program, including art and design, fulfilling the plan of study as approved by the faculty advisor.

Minor in Art History
A minor in art history complements other degree programs in the School of Art and Design, as well as degrees in anthropology, classical studies, history, and women's studies in the Fairmount College of Liberal Arts and Sciences. The requirement is 18 semester hours in art history, with 6 hours in lower-division courses (like ART H 121 and 122) and 12 hours in upper-division work chosen in consultation with the student’s art history advisor (including at least one course at the 500-level).

Lower-Division Courses


>ART H 122. Survey of Western Art: Renaissance and Baroque (3). General education introductory course. A historical survey of art from the Renaissance to the 18th century.

>ART H 123. Survey of Western Art: Medieval (3). A historical survey of early Christian and Gothic art and architecture from the 5th through 14th centuries.

>ART H 124. Survey of Western Art: Modern (3). General education introductory course. An introduction to art through the study of a selected group of art objects produced in Europe and America from the 18th century to the present.

>ART H 281. Cooperative Education (1-9). Allows students to participate in the cooperative education program. Offered only by Arts/College of Fine Arts.

Upper-Division Courses

ART H 320. Early Christian Art and Architecture (3). Begins with the evidence from the 1st through 3rd centuries but focuses on the 4th through 6th centuries: from Constantine to Justinian. Emphasizes understanding early Christian art in its Roman and pegan context and the methods and sources used in its analysis. Prerequisite: ART H 121 or instructor’s consent.

>ART H 322. Medieval Art I (3). General education further study course. A study of the art of Europe and Byzantium from the time of Constantine to Charlemagne. Emphasizes style and iconography as it develops in mosaics and illustrated manuscripts.

>ART H 323. Medieval Art II (3). General education further study course. A study of Romanesque and Gothic architecture and sculpture with special attention to the developments in France.

ART H 325. Art of the Ancient Near East and Egypt (3). Survey of the arts of ancient Egypt, Mesopotamia, and the Bronze Age cultures of the Aegean, concluding with a consideration of the interaction between Near Eastern and classical art. Prerequisite: ART H 121 or instructor’s consent.

>ART H 342. Northern Baroque (3). Painting and printmaking in Flanders and Holland of the 17th century, including the art of Rubens, Rembrandt, and Vermeer. Prerequisite: ART H 121 or instructor’s consent.

>ART H 348. History of Photography (3). History of photography stressing its techniques, media, processes, and relationships with other visual arts. Prerequisite: ART H 121 or instructor’s consent.

>ART H 349. Architecture (3). General education issues and perspectives course. Studies architecture as both a fine art and historical discipline. The design and historical roots of 20th-century architecture lead toward an understanding of the context of modern architecture. Explores through study of major monuments and indigenous architecture from the Neolithic through the Renaissance, the relationship of architecture to the societies that produced them. Also includes the role of architecture in contemporary society and the responsibilities of the designer, the historical development of urban planning, and the use of traditional and industrial materials and methods in the past and present.

>ART H 421. Greek Art and Architecture (3). General education further study course. A study of Greek art and architecture beginning with the Bronze Age and concluding with the Hellenistic period. Emphasizes understanding Greek art in its context and the methods and sources used in its analysis. Prerequisite: ART H 121 or instructor’s consent.

>ART H 422. Roman Art and Architecture (3). General education further study course. A study of Roman art and architecture beginning with their predecessors, the Etruscans, and concluding with early Christian art. Emphasizes understanding Roman art in its context and the methods and sources used in its analysis. Prerequisite: ART H 121 or instructor’s consent.

>ART H 426. Seminar: Techniques of Art History (3). A culminating study for senior art history majors which consider the history of the discipline, its research methods, and theory. Requires extensive readings and reports. Prerequisite: instructor’s consent.


Courses for Graduate/Undergraduate Credit

ART H 520. Seminar in Art History (3). Systematic study in selected areas of art history. Course content varies but individual areas are not repeatable for credit.
ART H 521. Italian Renaissance (3). General education further study course. Painting, sculpture, and architecture in Italy from the 13th to the 16th centuries. Prerequisite: ART H 122 or instructor’s consent.

ART H 522. Southern Baroque (3). Painting, sculpture and architecture in Italy and Spain from 1600 to 1750. Prerequisite: ART H 122 or instructor’s consent.

ART H 523. 18th and 19th Century European Art (3). General education further study course. A history of European art from early 18th-century Rococo art through Impressionism in the late 19th century. Prerequisite: ART H 124 or instructor’s consent.

ART H 524. 18th and 19th Century American Art (3). Survey of American art from the colonial period through the 19th century, emphasizing its European roots. Prerequisite: ART H 124 or instructor’s consent.

ART H 525. 20th Century Art Before 1945 (3). General education further study course. A history of American and European art from Post-Impressionism to Surrealism. Prerequisite: ART H 124 or instructor’s consent.

ART H 526. Art Since 1945 (3). General education further study course. Art in the United States from 1945 to the present, stressing the relationship between contemporary trends in criticism, theory, and artistic practice. Prerequisite: ART H 124 or instructor’s consent.

ART H 528. Museum Techniques 1 (3). Primarily for the graduate student interested in museum work. Includes specialized research related to administrative responsibilities of a museum: collection, exhibition, recording, preservation, and financial activities.

ART H 532. Independent Study in Art History (1-3). Work in specialized area of the study of art history. Directed readings and projects. Prerequisite: Instructor’s consent.

ART H 533. Seminar: Topics in Modern Art (1-3). Selected readings and problems in art of modern era. Course content varies but individual areas are not repeatable for credit.

ART H 535. Northern Renaissance (3). Painting and printmaking in France, Germany, and the Netherlands in the 14th through 16th centuries. Explores northern European pictorial traditions and considers their relationship to Italian Renaissance art. Prerequisite: ART H 122 or instructor’s consent.

ART H 732. Independent Study in Art History (1-3). Work in specialized area of the study of art history. Directed readings and projects for graduate students in all disciplines. Prerequisite: Instructor’s consent.

Please see the Graduate Catalog for courses numbered 800 and above.

Graphic Design—Visual Communication Art (ART G)

Design programs are often classified as the communication arts, advertising arts, or visual communication. The professional practitioners are concerned with ideas and problem-solving to effectively meet the communication needs of clients as diverse as corporations, publishers, advertising agencies, public and private institutions, and television stations. Design majors are trained to analyze visual communication problems as presented by client case studies, define the most appropriate approach, and implement creative and aesthetic solutions. The broad range of media used to investigate solutions to design problems include print, advertising, packaging, presentation, computer graphics, photography, video, illustration, and television.

Bachelor of Fine Arts in Graphic Design (BFA)

The design area offers the Bachelor of Fine Arts in Graphic Design which is the professional education and training degree for the visual communication arts field. The Foundation Curriculum and the preparatory course work in the graphic design program enables design majors to meet their vocational goal. Students are required to participate in the Portfolio Review during the second semester of their junior year and enroll in ART G 434 and 435 during their final two semesters. The graphic design concentration provides student-selected courses in typography, illustration, photography, book design, advertising, computer graphics, design, and drawing.

Requirements. A minimum total of 126 hours is required for the BFA in Graphic Design and includes 84 semester hours of art courses listed below.

Area

Foundation Curriculum .......................... 19

ART F 102, Introduction to Art and Design
ART F 103, Intro to Art and Design: Laboratory
ART F 136 & 137, Foundation Design I & II
ART F 145 & 146, Foundation Drawing I & II
ART F 189, Foundation 3-D Design
ART F 202, Sophomore Review

Art History ........................................ 15

ART H 121 & 122, Survey of Art History I & II
ART H 300+ (2 courses)
ART H 300+ (1 course)

Art Distribution Electives .......................... 9

2-D elective (from ART S 250, 251, 252, or 260)
3-D elective (from ART S 270, 272, or 280)
Design elective (from ART G 200, 210, 216, or 234)

BFA Graphic Design Program Studies ............. 18

ART G 200, Introduction to Computer Graphics
ART G 216, Typography 1
ART G 234, Graphic Design Studio 1
ART G 235, Graphic Design Studio 2
ART G 238, Graphic Materials and Processes
ART G 316, Typography 2
ART G 330, Still Photography for

Graphic Design

Art electives .................................. 6

Graphic Design Concentration .................. 24

ART G 334, Graphic Design Studio 3
ART G 335, Graphic Design Studio 4
ART G 337, Drawing for Visual
Communication I

ART G 335, Junior Portfolio Review
ART G 434, Graphic Design Studio 5
ART G 435, Graphic Design Studio 6
ART G 437, Drawing for Visual
Communication 2

ART G 433, Graphic Design Senior Exhibition

Note: 45+ upper-division hours are required for graduation.

Courses eligible for the concentration and electives:

ART G 331, Film/Video for Graphic Design
ART G 339, Package Design
ART G 360, Graphic Design Workshop
ART G 430, Television for Graphic Design
ART G 431, Design Media Topics
ART G 432, Multimedia
ART G 439, Editorial Illustration
ART G 481, Cooperative Education
ART G 493, Book Design and Production
ART G 580, Advanced Television
ART G 580, Advanced Computer Graphics
ART G 580, Graphic Design Workshop
ART S 251, Introductory Watercolor Painting
ART S 252, Introductory Acrylic Painting
ART S 260, Printmaking I
ART S 340, Life Drawing Studio
ART S 345, Intermediate Drawing
ART S 362, Intermediate Intaglio Print II
ART S 364, Printmaking III—Lithography
ART S 365, Basic Screenprinting and Papermarking I
ART S 455, Advanced Drawing Studio
ART S 549, Independent Study in Drawing
ART S 560, Advanced Printmaking Studio-Intaglio
ART S 561, Advanced Printmaking Studio-Lithography

*COMM 324, Introduction to Integrated Marketing Communications
*COMM 370, Magazine Production
*COMM 626, Integrated Marketing Communications Campaigns
*MKT 300, Marketing
*THEA 345, Stage Lighting
*THEA 359, Directing I
*THEA 544, Advanced Stagecraft

*No more than two courses can be used to fulfill the concentration requirement.

Lower-Division Courses

ART G 200, Introduction to Computer Graphics (3). Introduces computer graphic programs in the Macintosh com-
ART G 316. Typography 2 (3). Studies type as form, symbol, and communication with exploration of letterforms and their applications utilizing traditional and computer skills and media. Prerequisites: ART G 201 and 216.

ART G 330. Still Photography for Graphic Design (3). Introduces still photography with a design emphasis. Development of photographic vision and skills for graphic designers in traditional black and white photography with exposure to digital scanning of traditional silver-based images for computer usage. Students may be required to furnish their own cameras. Prerequisite: ART F 137 or instructor’s consent.

ART G 331. Film/Video for Graphic Design (3). Introduces film theory and video with a design emphasis. Examines the language and theory of sequential and moving images in traditional film/television and computerized multi-media forms as applied to graphic design. Prerequisites: ART F 137, and ART G 200 and 330.

ART G 334. Graphic Design Studio 3 (3). Continuation of ART G 235 emphasizing the use of color with image and type. Prerequisite: ART G 235.


ART G 337. Drawing for Visual Communication 1 (3). Applied drawing for the design field emphasizing shape simplification, visualization, and perspective. Emphasizes freehand and mechanical approaches. Prerequisite: ART F 146.

ART G 339. Package Design (3). Box construction and surface treatment in product design. Prerequisites: ART G 238 and 334.

ART G 389. Graphic Design Workshop (1-3). Repeatable for credit. Area covered is determined at the time the course is offered.

ART G 393. Junior Portfolio Review (1). A forum for the student to analyze and present their portfolio to the faculty and invited community professional designers for commentary. Prerequisite: prior to the last 30 hours or prior to entering senior standing. Within photographic design program.

ART G 430. Television for Graphic Design (3). Examination and application of creative technical design media aesthetics. Graphic design application of traditional order and computerized imagery utilizing the television studio. Prerequisites: ART G 200, 330, 331, or instructor’s consent.

ART G 432. Design Media Topics (3). Advanced study of photography, cinematography, or television with a design emphasis. Repeatable for credit. Prerequisites: ART G 330, 331, or instructor’s consent.


ART G 435. Graphic Design Studio 6 (3). Use of media and formats to create visual advertising and promotional cohesive campaigns. Prerequisite: ART G 334. Repeatable for credit.


ART G 438. Advanced Color and Design (3). Studies color as it relates to format, typography, visual images, and print reproduction in communication design. Includes integration of computer and hand techniques for visualization and production. Prerequisites: ART G 200 and 234.

ART G 439. Editorial Illustration (3). Concentration in editorial and narrative illustration emphasizing visualization and creative problem solving while exploring a variety of color media and techniques. Prerequisite: ART G 437. Repeatable for credit.

ART G 448. Senior Terminal Project (1-3). Supervised independent study. Students in their final two semesters must present a Plan of Study for and complete a design project. Project and Plan of Study must be approved by the graphic design faculty. Repeatable for credit. Prerequisite: senior standing in graphic design.

ART G 453. Graphic Design Senior Exhibition (2). A public exhibition of works produced for their superior demonstration of concept and layout execution involving a variety of visual communication problems. The student presents the exhibit in a professional manner. Prerequisite completed during the last semester of the senior year.


ART G 490. Book Design and Production (3). A laboratory course encompassing all facets of the book including design, type composition, proofreading, illustration, manufacturing, binding materials (cloth, paper, and boards), distribution, copyright, royalties, and remunerating. Students are responsible for the development and publication of a limited edition book. Prerequisites: ART G 334 and 337, or instructor’s consent.

Courses for Graduate/Undergraduate Credit

ART G 530. Seminar in Graphic Design (3). Supervised study and research. Requires weekly consultation and reports. Repeatable for credit. Prerequisite: departmental consent.

ART G 550. Graphic Design Workshop (1-3). Repeatable for credit. Area covered is determined at the time the course is offered.

Studio Art (ART S)
The Studio art area offers the Certificate in Decorative and Ornamental Painting and Design, BA in Studio Art, and the BFA in Studio Art with concentrations in ceramics, painting/drawing, printmaking, and sculpture for students preparing for careers in art and design. The programs of study provide a thorough grounding in fundamental principles and techniques of the visual arts.

Certificate in Decorative and Ornamental Painting and Design
The certificate offers each student a broad range of experiences in a variety of media and processes in addition to an understanding and awareness of design and conceptual concerns in decorative ornamentation.
COURSES IN COLOR THEORY, DRAWING, OIL PAINTING, WATERCOLOR PAINTING, ACRYLIC PAINTING, MIXED MEDIA ORNAMENTAL DESIGN, AND A TERMINAL PROJECT ARE REQUIRED OF EACH STUDENT AND PROVIDE THE FOUNDATION FOR SUCCESSFULLY COMPLETING ORNAMENTAL COMMISSIONS AFTER THE CERTIFICATE IS COMPLETED. THE KNOWLEDGE AND EXPERIENCE ATTAINED FROM THESE COURSES ALLOW EACH STUDENT THE FLEXIBILITY NECESSARY TO PURSUE INDIVIDUAL DIRECTIONS IN ORNAMENTAL DESIGN AT A PROFESSIONAL LEVEL. STUDENTS ARE ADVISED TO COMPLETE A TERMINAL PROJECT IN DECORATIVE AND ORNAMENTAL PAINTING AND DESIGN PRIOR TO COMPLETION OF THE CERTIFICATE PROGRAM.

REQUIREMENTS: 15 SEMESTER HOURS ARE REQUIRED FOR THE CERTIFICATE.

Certificate Curriculum ..... 18

ART S 13, Foundation Design I
ART S 145, Foundation Drawing I
ART S 250, Introductory Oil Painting or
ART S 251, Introductory Watercolor Painting or
ART S 252, Introductory Acrylic Painting
ART S 352, Decorative and Ornamental Painting and Design
ART S 552, Advanced Decorative and Ornamental Painting and Design
ART S 559, Terminal Project: Decorative and Ornamental Painting and Design

BACHELOR OF FINE ARTS IN ART

THE BACHELOR OF FINE ARTS IN ART IS THE INITIAL PROFESSIONAL DEGREE IN THE FIELD IN PREPARATION FOR GRADUATE STUDY IN STUDIO ART. THIS STUDIO EXPERIENCE IS OF PRIME IMPORTANCE IN THE PREPARATION OF STUDENTS FOR PROFESSIONAL CAREERS IN ART. IN THIS INTENSE PROGRAM, THE STUDENT BECOMES FAMILIAR WITH EVERY ASPECT, TECHNIQUE, AND DIRECTION IN THEIR CHosen BFA CONCENTRATION. THE STUDIO ART MAJOR IS EXPECTED TO ACHIEVE THE HIGHEST POSSIBLE LEVEL OF TECHNICAL SKILL IN THAT CONCENTRATION AND ITS EXPRESSIVE POSSIBILITIES.

GENERAL

UPPER-DIVISION COURSES

ART S 495, Professional Practices in Studio Art (3). Research into and practical application of professional practices, business skills, and career planning specific to the discipline of studio art. Provides a foundation of practical information to assist the undergraduate studio art major in building a successful professional career. Repeatable for credit. PREREQUISITE: JUNIOR STANDING OR INSTRUCTOR’S PERMISSION.

ART S 495, Professional Practices in Studio Art (3). Research into and practical application of professional practices, business skills, and career planning specific to the discipline of studio art. Provides a foundation of practical information to assist the undergraduate studio art major in building a successful professional career. Repeatable for credit. PREREQUISITE: JUNIOR STANDING OR INSTRUCTOR’S PERMISSION.

ART S 895, Professional Practices in Studio Art (3). Research into and practical application of professional practices, business skills, and career planning specific to the discipline of studio art. Provides a foundation of practical information to assist the graduate studio art major in building a successful professional career. Repeatable for credit.

BFA IN ART - CERAMICS CONCENTRATION (F16C)

THE BACHELOR OF FINE ARTS IN ART WITH A CONCENTRATION IN CERAMICS OFFERS THE BASIC TECHNIQUES OF CLAY-FORMING (HAND BUILDING, CASTING, AND THROWING), THE USE OF SLIPS AND GLAZES, AND FORMING PROCESSES SUCH AS STONEWARE, LOW-FIRE, AND RAKU, WITH AN EMPIOSIS ON EXPERIMENTATION WITH THE MEDIUM TO INVESTIGATE INDIVIDUAL INTERESTS.

REQUIREMENTS: A MINIMUM TOTAL OF 129 SEMESTER HOURS IS REQUIRED FOR A CERAMICS MAJOR, INCLUDING 84 CREDITS AS LISTED BELOW.

AN ART HIST.

FUNDAMENTAL CURRICULUM ........................................ 18

ART S 102, Introduction to Art and Design
ART S 103, Intro to Art and Design Lab
ART S 136 & 137, Foundation Design I & II
ART S 145 & 146, Foundation Drawing I & II
ART S 189, Foundation 3-D Design
ART S 202, Sophomore Review

ART HISTORY ......................................................... 15

ART H 121 & 122, Survey of Art History I & II
ART H 300 (2 courses)
ART H 500 (1 course)

ART DISTRIBUTION ELECTIVES .................................. 9

2-D ELECTIVE (FROM ART S 250, 251, 252, OR 260) 3

3-D ELECTIVE (FROM ART S 270, 272, OR 280) 6

DESIGN ELECTIVE (FROM ART S 200, 210, 216, 230, 234) 3

BFA CERAMICS PROGRAM STUDIES .............. 15

ART S 250, Introductory Oil Painting or
ART S 251, Introductory Watercolor Painting
ART S 260, Printmaking
ART S 270, Basic Ceramics Studio
ART S 272, Hand building with Clay
ART S 280, Sculpture
ART S 340, Life Drawing Studio
ART S 540 or 545, Intermediate Drawing

ART ELECTIVES .................................................. 9

COURSES WHICH COMPLEMENT THE INTRODUCTORY ART COURSES AND THE CERAMICS CONCENTRATION ........................................ 24

ART S 360, Intermediate Intaglio Print I
ART S 361, Intermediate Lithography Print I
ART S 370, Intermediate Ceramics Studio I
ART S 371, Intermediate Ceramics Studio II
ART S 372, Intermediate Hand building
ART S 545, Advanced Drawing Studio
ART S 570, Advanced Ceramics Studio I
ART S 572, Advanced Hand building

Ceramics Studio I

ART S 571, Advanced Ceramics Studio II or
ART S 573, Advanced Hand building Studio II

Note: 45+ UPPER-DIVISION HOURS ARE REQUIRED FOR GRADUATION.

LOWER-DIVISION COURSES

ART S 270, Basic Ceramics Studio (3). Experience in hand building, wheel throwing, glazing methods. Lecture periods involve general knowledge of clays, glazes, kilns, and historical and contemporary pottery. Repeatable for credit.

ART S 272, Hand building with Clay (3). Uses various hand building techniques in the context of the vessel, the figure, and architecture or wall reliefs. Emphasizes the creative use of clay to make a personal statement. Explores various surface treatments and firing techniques. Emphasizes issues of content and one’s ideas. Required for upper-level courses.

ART S 275, Study of Ceramic Materials I (3). Lab fee. Lectures and research covering clays, glazes, and refractory materials. Reading assignments concerning physical and chemical characteristics of pottery materials. Prerequisites: ART S 189 and ART S 270, or departmental consent for non-majors.

UPPER-DIVISION COURSES

ART S 370, Intermediate Ceramics Studio I (3). First course in an intermediate 300-level series. Introduces students to various forming and construction methods related to the use of the potter’s wheel. Introduces new forms and through critical analysis, students develop a personal statement with clay. Prerequisites: ART S 270.


ART S 372, Intermediate Hand building 0h. Hand building forming methods and drying/firing procedures relate to the various hand building techniques. Activities include lectures, demonstrations, and research related to historical as well as contemporary studies of clay vessels and sculptural forms. Prerequisite: ART S 272 or 280.


ART S 374, Kiln Methods (3). Studies kiln design and construction with research in the area of refractory materials. Includes reading assignments, notebook, and laboratory research. Prerequisites: completion of foundation program and ART S 370.

COURSES FOR GRADUATE STUDENTS ONLY

ART S 600, Seminar in Art Topics (0). Explores areas of common interest in the arts. Supervised study, research, and discussion. Repeatable for credit.

ART S 615, Graduate Studio Art (9). An advanced studio art course which enables the graduate student to develop a thesis project culminating in a public exhibition or performance. Repeatable for credit. PREREQUISITE: ART S 573 and/or instructor’s consent.


ART S 680, Seminar in Art Topics (0). Explores areas of common interest in the arts. Supervised study, research, and discussion. Repeatable for credit.

ART S 571 Advanced Ceramics Studio II (1-3). Second course in advanced 500-level series. Builds on ART S 570. Prerequisites: ART S 570 and/or instructor's consent.


ART S 574. Advanced Study of Kiln Methods (3). Advanced study of kiln design and construction with research in the area of refractory materials. Requires reading assignments, notebook, and laboratory work. Prerequisite: ART S 374.

ART S 575. Study of Ceramic Materials II (3). Lab fee. Lectures and research covering clays, glazes, and refractory materials. Reading assignments concerning physical and chemical characteristics of pottery materials. Prerequisites: ART S 275 and 370.

ART S 576. Study of Ceramic Glazes II (3). Lab fee. The study of glaze formulation and the color and crystalline effects of oxides on base glazes. Requires notebook, formulation records, and laboratory work. Prerequisite: ART S 575.

ART S 578. Independent Study in Ceramics (1-3). A professional emphasis on technical or aesthetic research in the ceramics field. Available only for the advanced ceramics student with instructor's consent. Statement of intent must be submitted for faculty approval before registration. Prerequisite: departmental consent.

Please see the Graduate Catalog for courses numbered 800 and above.

BFA in Art—Painting/Drawing Concentration (F16A)
The Bachelor of Fine Arts in Studio Art with a concentration in painting/drawing offers intensive studio work organized within a pattern of courses designed to promote the development of concepts and their realization in vital material form. This approach requires a foundation in the fundamental aspects of painting, as well as an understanding of the historical and social context in which painting is encountered.

Requirements: A minimum total of 129 semester hours is required for a painting/drawing major with 84 credits distributed as listed below.

Area

Foundation Curriculum.............................................19

ART F 102, Introduction to Art and Design
ART F 103, Intro to Art and Design: Lab
ART F 136 & 137, Foundation Design I & II
ART F 145 & 146, Foundation Drawing I & II
ART F 189, Foundation 3-D Design
ART F 202, Sophomore Review
Art History..............................................................13
ART H 121 & 122, Survey of Art History I & II
ART H 300+ (2 courses)
ART H 504 (1 course)
Art Distribution Electives...........................................9
2-D Elective (from ART S 250, 251, 252, or 260)
3-D Elective (from ART S 270, 272, or 280)
Design Elective (from ART G 280, 210, 216, 220, 234)
BFA Painting/Drawing Program Studies........................15
ART S 250, Introductory Oil Painting
ART S 251, Introductory Watercolor Painting
ART S 260, Printmaking I
ART S 270, Basic Ceramics Studio or
ART S 272, Hand Building with Clay
ART S 280, Sculpture
ART S 340, Life Drawing Studio
ART S 360, Intermediate Intaglio Print I or
ART S 361, Intermediate Lithography Print I
Art Electives...............................................................9
Courses which complement the Introductory Art courses and the Painting/Drawing Concentration
Painting/Drawing Concentration....................................24
ART S 345, Intermediate Drawing
ART S 354, Intermediate Painting I
ART S 356, Intermediate Painting II
ART S 358, Intermediate Painting III
ART S 345, Advanced Drawing Studio
ART S 354, Advanced Painting I
ART S 356, Advanced Painting II

Note: 45+ upper-division hours are required for graduation.

Drawing Courses
Drawing is the integral discipline of the four major programs of the studio art area—painting, printmaking, sculpture, and ceramics—as well as the areas of graphic design and art education.

Upper-Division Courses

ART S 240, Foundation Life Drawing (3). Introduction to drawing the human form emphasizing critical inquiry and analytical observation. Includes the study of skeletal and muscular structure. Students develop an understanding of the structure of the figure and demonstrate a degree of facility in its representation from observation and from imagination. Structured homework assignments. Lab fee. Prerequisites: ART F 140 and 146.

ART S 240A, Life Drawing Studio (3). Lab fee. Emphasizes individual development, figurative observation, and interpretation. Repeatable for credit. Prerequisite: completion of foundation program.

ART S 345, Intermediate Drawing (3). Drawing projects, figurative or nonfigurative. Includes problems of style, suites of related works and history of drawing techniques, and materials. Prerequisite: completion of foundation program.

Courses for Graduate/Undergraduate Credit

ART S 345. Advanced Drawing Studio (1-3). Drawing with a variety of media. Uses graphic problems relative to individual technical and aesthetic development. Critiques are given. Repeatable for credit. Prerequisites: ART S 340 and 345.

ART S 549. Independent Study in Drawing (1-3). A professional emphasis on technical or aesthetic research in the drawing area. Available only for the advanced drawing student with instructor's consent. Statement of intent must be submitted for faculty approval before registration. Prerequisites: ART S 340, 345, and instructor's consent.

Courses for Graduate Students Only

ART S 540. Special Problems in Life Drawing (1-3). Drawing from life. Requires sketchbooks and/or portfolio. Repeatable for credit.

ART S 845. Special Problems in Drawing (1-3). Advanced drawing in various media emphasizing independent work and the development of personal expression. Repeatable for credit.

Painting Courses

Lower-Division Courses

ART S 250, Introductory Oil Painting (3). Introduces oil and alkyd painting emphasizing studio practices, fundamental principles, and techniques.

ART S 251, Introductory Watercolor Painting (3). Introduces transparent and opaque watercolor painting emphasizing studio practices, fundamental principles, and techniques.

ART S 252, Introductory Acrylic Painting (3). Introduces acrylic painting emphasizing studio practices, fundamental principles, and techniques.

Upper-Division Courses

ART S 351, Intermediate Watercolor Studio (3). Emphasizes individual development, personal interpretation, and creativity. Repeatable for credit. Prerequisites: completion of the foundation program and ART S 251, or departmental consent.

ART S 352, Decorative and Ornamental Painting and Design (3). An overview of historical and contemporary decorative and ornamental art utilizing slide lecture, demonstration, and studio activity to study techniques including trompe l'oeil, marbleizing, gilding, faux finishing, stenciling, and ornamental methods for their adaptation in interior, exterior, and furniture decoration and design. Credit can be repeated with a different emphasis. Prerequisites: ART S 251, 351, or departmental consent.
BFA in Art—Printmaking Concentration (F16B)
The Bachelor of Fine Arts in Art with a concentration in printmaking offers a broad range of studio experiences in two primary printmaking disciplines, intaglio and lithography. Supplememting these areas are relief, screen printing, collagraph, and papermaking. The program provides a wide exposure to traditional and contemporary techniques.

Requirements: A minimum total of 127 semester hours is required for a printmaking major with 84 credits distributed as listed below.

**Area** | **Hrs.**
--- | ---
Foundation Curriculum | 19

ART F 102, Introduction to Art and Design | 1
ART F 103, Intro to Art and Design Lab | 1
ART F 136 & 137, Foundation Design I & II | 2
ART F 145 & 146, Foundation Drawing I & II | 2
ART F 189, Foundation 3-D Design | 1
ART F 202, Sophomore Review | 1

**Art History** | **15**
ART H 121 & 122, Survey of Art History I & II | 3
ART H 300+ (2 courses) | 2
ART H 500+ (1 course) | 1

**Art Distribution Electives** | **9**
3-D Elective (from ART S 250, 260, 270, 272, 277, or 280) | 1
3-D Elective (from ART S 270, 277, or 280) | 1
Design Elective (from ART S 260, 270, 272, 277, 280, 285) | 1

BFA Printmaking Program Studies | **15**
ART S 250, Introductory Oil Painting or | 2
ART S 251, Introductory Watercolor Painting | 2
ART S 260, Printmaking I | 2
ART S 270, Basic Ceramics Studio | 2
or ART S 272, Hand building with Clay | 2
ART S 280, Sculpture | 2
ART S 340, Life Drawing Studio | 2
ART S 340 or 345, Intermediate Drawing | 2
ART S 354, Intermediate Painting I | 2

**Art Electives** | **9**
Courses which complement the Introductory Art courses and the Printmaking Concentration | 9

**Printmaking Concentration** | **24**
ART S 360, Intermediate Intaglio Print I | 4
ART S 361, Intermediate Lithography Print I | 4
ART S 362, Intermediate Intaglio Print II | 4
ART S 363, Intermediate Lithography Print II | 4
ART S 545, Advanced Drawing Studio | 4
ART S 560, Advanced Intaglio Print I | 4
or ART S 561, Advanced Litho Print I | 4

Note: 45+ upper-division hours are required for graduation.

**Lower-Division Courses**

ART S 181, Printmaking for Non-Art Majors (3). Involves basic intaglio methods, etching, aquatint, soft ground, and mixed media techniques, as well as linoleum or wood block techniques, embossment, and a simplified unit on papermaking.

ART S 260, Printmaking I (3). An introduction to printmaking. Exploratory work in intaglio, collagraph, woodcut, or relief techniques, and a simplified unit on papermaking.

**Upper-Division Courses**

ART S 362, Intermediate Intaglio Print II (3). Third in series of five classes for printmaking major. Printmaking techniques and materials are the same as in ART S 360, but emphasizes more involvement with color printing. The format is generally larger and the mixing of intaglio techniques is encouraged. Prerequisites: ART F 145, ART S 260, 360.

ART S 364, Lithography I (3). Introduces lithography printing from the stone in black and white. The second semester includes color printing in lithography and combined techniques. Repeatable for credit. Prerequisites: completion of foundation program and ART S 260.

ART S 365, Basic Screenprinting and Papermaking I (3). Part 1 introduces basic screenprinting technology (stencil-block-out) and resists, as well as basic photographic methods. Emphasizes multi-color printing. Second part involves basic papermaking methods (sheet forming and paper cast from a mold). Prerequisites: completion of foundation program and ART S 260.

**Courses for Graduate/Undergraduate Credit**

ART S 551, Advanced Watercolor Studio (3). For the professionally oriented student. Emphasizes independent study, Repeatable for credit. Prerequisites: four semesters of ART S 151 and interview with instructor.

ART S 552, Advanced Decorative and Ornamental Painting and Design (3). Projects in decorative and ornamental painting and design developed and completed by the student with studio supervision. Preparation for more independent work. Plans of study defining projects must be submitted and approved by the instructor. Prerequisite: ART S 352 or instructor's consent.

ART S 553, Independent Study in Painting (1-3). A professional emphasis on technical or aesthetic research in the painting area. Available only for the advanced painting student with instructor's consent. Statement of intent must be submitted for faculty approval before registration. Prerequisite: departmental consent.

ART S 554, Advanced Painting I (4). For the professionally oriented student. Emphasizes independent study. Prerequisite: ART S 355 and portfolio review.


ART S 559, Terminal Project: Decorative and Ornamental Painting and Design (3). Supervised independent study. A plan of study for a project in decorative and ornamental art must be submitted for faculty approval prior to registration. Repeatable for credit. Prerequisite: ART S 552.

Please see the Graduate Catalog for courses numbered 800 and above.
Please see the Graduate Catalog for courses numbered 800 and above.

BFA in Art—Sculpture Concentration (F16D)
The Bachelor of Fine Arts in Art with a concentration in sculpture offers a varied and rich learning experience in three-dimensional media. The sculpture studios in Henion Annex, where clay figure modeling, steel fabricating, wood and stone carving, and bronze or aluminum casting take place continually exposes the student to the diverse sculpture-making processes and how they relate to other artists’ concepts.

Requirements: A minimum total of 129 semester hours is required for a sculpture major with 84 credits distributed as listed below.

Area Hrs.
Foundation Curriculum .................................................19
ART F102, Introduction to Art and Design
ART F103, Intro to Art and Design Lab
ART F136 & 137, Foundation Design I & II
ART F145 & 146, Foundation Drawing I & II
ART F189, Foundation 3-D Design
ART F202, Sophomore Review
Art History .................................................................15
ART H121 & 122, Survey of Art History I & II
ART H300 (2 courses)
ART H300+ (1 course)
Art Distribution Electives ..............................................9
2-D Elective (from ART S 250, 251, 252, or 260)
3-D Elective (from ART S 270, 272, or 280)
Design Elective (from ART G 200, 210, 216, 230, 234)
BFA Sculpture Program Studies ......................................15
ART S 250, Introductory Oil Painting or
ART S 251, Introductory Watercolor Painting
ART S 260, Printmaking I
ART S 280, Sculpture
ART S 340, Life Drawing Studio
ART S 340 or 345, Intermediate Drawing
ART S 352, Intermediate Intaglio Print II or
ART S 364, Printmaking III—Lithography
Art Electives ....................................................................9
Courses which complement the Introductory Art courses and the Sculpture Concentration
Sculpture Concentration ..................................................24
ART S 380, Sculpture Studio (take 2 times)
ART S 381, Cast Sculpture Studio
ART S 394, Advanced Drawing Studio
ART S 380, Advanced Sculpture Studio
ART S 300+, sculpture elective (take 2 times)
Repeatable courses

Note: 45+ upper-division hours are required for graduation.

Lower-Division Course
ART S 280, Sculpture (3). Introduces sculptural techniques in welded steel, assemblage, kinetics, and optics. Prerequisites: ART F 145 and 189.

Upper-Division Courses
ART S 380, Sculpture Studio (1-3). Emphasizes the main approaches to sculpture. Stresses the form, concept, and construction of sculpture. Includes carving techniques in wood, stone, and/or plastic; construction and assembly techniques selected from wood, plastic, metal (welded, brazed, riveted, etc), and/or combined materials. Repeatable once for credit. Prerequisites: completion of foundation program and ART S 280.

ART S 381, Cast Sculpture Studio (3). Casting techniques for bronze and aluminum sculpture. Uses plaster investment, CO2 set sand, foam vaporization, and vitrified shell molds to develop individual and unique approaches to cast sculpture. Prerequisites: completion of foundation program and ART S 280.

Courses for Graduate/Undergraduate Credit
ART S 580, Advanced Sculpture Studio (1-3). Sculpture in any medium, emphasizing individual development and creativity. Repeatable for credit. Prerequisite: ART S 380.

ART S 585, Independent Study in Sculpture (1-3). A professional emphasis on technical or aesthetic research in the sculpture area. Available only for the advanced sculpture student with instructor’s consent. Statement of intent must be submitted for faculty approval before registration. Prerequisite: departmental consent.

Please see the Graduate Catalog for courses numbered 800 and above.

Art Education (ART E)
The art education area offers the Bachelor of Fine Arts degree for students interested in an art education teaching career. The goal of the program is to develop a highly competent art teacher who is intellectually informed, skilled in studio performance, and able to communicate with and motivate students. All art education majors are required to specialize in studio art, design, or art history as an emphasis area. Students observe teaching techniques, teach in public schools, and attend seminars in education and art education topics.

Bachelor of Art Education
(Currently Suspended)
The Bachelor of Art Education has the same foundation and art history requirements as the BFA in Art. This degree serves the student who plans to teach art on the elementary, middle, or secondary level. Its studio component emphasizes a breadth of studio art experience.

Requirements: A minimum total of 146 semester hours is required for an art education major with 91 art credits and 32 education credits distributed as listed below.

Area Hrs.
Foundation Curriculum .................................................19
ART F 102, Introduction to Art and Design
ART F 103, Intro to Art and Design Lab
ART F 136 & 137, Foundation Design I & II
ART F 145 & 146, Foundation Drawing I & II
ART F 189, Foundation 3-D Design
ART F 202, Sophomore Review
Art History .................................................................15
ART H121 & 122, Survey of Art History I & II
ART H300 (2 courses)
ART H500+ (1 course)
Art Distribution Electives ..............................................9
2-D Elective (from ART S 250, 251, 252, or 260)
3-D Elective (from ART S 270, 272, or 280)
Design Elective (from ART G 200, 210, 216, 230, 234)
BFA Art Education Program Studies ................................15
ART S 270, Basic Ceramics Studio
ART E 302, Jewelry Design/Construction
ART E 313, Fiber Exploration
ART S 250, Introductory Oil Painting
ART S 251, Introductory Watercolor Painting
ART S 260, Printmaking I
ART G 230, Intro to Photography
Art Specialization .........................................................5
Three courses from one of the following media: ceramics, painting/drawing/printmaking/sculpture, design—graphic, illustration, 3-D, multimedia; or art history
Art Education Concentration ........................................10
ART E 310, Art Ed. in the Elementary School
ART E 410, Art Ed. in the Middle/Junior High School
ART E 414, Art Ed. in the Senior High School
ART E 419, Micro-Computer Applications to Art Ed.
ART E 459, Student Tchg. in the Elementary School
ART E 462, Student Tchg. in the Secondary School
ART E 510, Stimulating Creative Behavior
ART E 514, Aesthetic Inquiry
ART E 515, Developing Visual Materials for Art Ed.
Professional Education Requirements ..........................5
Specified courses in block sequences include ART E 517, Student Teaching Seminar
Note: 45+ upper-division hours are required for graduation.

This degree and curriculum are under revision; please contact the School of Art and Design for further information.

Student Teaching
Admission into the student teaching year requires senior standing (90 hours or 200 credit points); a minimum cumulative grade point average of 2.500 and 2.500 in specific courses at the time of application for student teaching; a grade of C or better in College Algebra; a grade of C or better in English Composition (ENGL 101 and 102, or their equivalent); a grade of C or better in oral communication; completion of curriculum and instruction in art education prerequisites; satisfactory physical examination; and recommendation by the art education program following a formal interview. Admission to the education program is determined early in the student’s college career.
Teacher Education Programs. Students must apply for student teaching by midterms of the fall semester prior to the spring semester for student teaching in the following year. A grade of C or better in student teaching is necessary to receive a recommendation for Kansas licensure.

Graduates of the program applying for teacher licensure in Kansas are required to complete the Principles of Learning and Teaching (PLT) examination as established by the Kansas State Department of Education.

Review of course content will be required for transfer of art education credits from other institutions.

Lower-Division Courses

ART E 115. Human Experience and the Arts (3). Telecourse. Surveys sculpture, architecture, film, drama, music, literature, and painting. Examines each art form from four perspectives: historical context, elements of the art form, meaning, and criticism/evaluation. Contains 30 half-hour video programs which are coordinated and integrated with the text and study guide. Requires attendance at periodic Saturday sessions.

ART E 130. Art Workshop (1-3). Repeatable for credit. Area covered is determined at the time course is offered.

ART E 281. Cooperative Education (1-6). Allows students to participate in the cooperative education program. Offered C/NC only.

Upper-Division Courses

ART E 302. Jewelry Design/Construction (3). Emphasizes metal working processes (forging, forming, casting, sawing, cutting, fusing, soldering) with subordinate emphasis on soft jewelry and ceramic; processes applicable to jewelry.

ART E 303. Stimulating Creative Behavior (3). General education issues and perspectives course. Includes theories of creativity; strategies for problem-finding and problem-solving; identifying various external and internal blocks to creativity; testing for creativity; the relationships of creativity, cognition, and visual thinking; creative challenges; and stimuli. Emphasizes methods to elicit creative behavior. Repeatable once for credit.

ART E 310. Art Education in the Elementary School (3). A study of philosophy, psychology, and sensory growth of the elementary-age student. Emphasizes the content, objectives, methods, and evaluation of the elementary school art program. Prerequisite: art education major, upper-division eligibility.

ART E 311. Art Education Curriculum in the Elementary School (2). Studies developmental characteristics of the elementary-age student and the development of the art program with respect to materials, skills, and knowledge content.

ART E 313. Fiber Exploration (3). Focuses on fiber experiences appropriate for the classroom on the intermediate or secondary level. Explores various kinds of looms weaving, stitching, and twisting techniques that result in a fabric or web. Explores simple dye techniques.

ART E 350. Art Workshop (1-3). Repeatable for credit. Area covered is determined at the time course is offered.

ART E 410. Art Education in the Middle School (3). A study of the philosophy, psychology, and artistic development of the middle school/junior high school student, emphasizing the content, objectives, methods, and evaluation of the middle school/junior high school art program. Students participate in a field experience in a middle school/junior high school. Students enroll in this course during the fall semester preceding Spring semester student teaching. Prerequisites: ART E 311, 414.

ART E 413. Independent Study (1-3). Directed independent study in art education not normally covered in other curriculum work. Prerequisite: instructor's consent.

ART E 414. Art Education in the Senior High School (3). A study in the philosophy, psychology, and artistic development of the senior high student, emphasizing the content, objectives, methods, and evaluation of the senior high school art program. Students participate in a field experience in a senior high school. Prerequisite: ART E 310 or equivalent.

ART E 419. Micro-Computer Applications to Art Education (1-3). A study of the curricular and instructional uses of the Macintosh computer to art education. Students learn a variety of procedures for generating computer art images for instruction and self-expression and use a variety of micro-computer software and hardware. Students apply the Macintosh computer to art curriculum and instruction. Prerequisite: ART E 310 or equivalent.

ART E 459. Student Teaching in Elementary Art (1-6). Prerequisites: acceptance into Core III student teaching semester, ART E 410, CI 328, CESP 433, 2,500 GPA overall, and concurrent enrollment in ART E 462 and 517.

ART E 462. Student Teaching in the Secondary School: Art (1-6). Prerequisites: acceptance into Core III student teaching semester, ART E 410, CI 328, CESP 433, 2,500 GPA overall, and concurrent enrollment in ART E 459 and 517.

ART E 481. Cooperative Education (1-6). Allows students to participate in the cooperative education program. Offered C/NC only.

Courses for Graduate/Undergraduate Credit

ART E 514. Aesthetic Inquiry (3). Focuses on contemporary trends in aesthetics relative to the visual arts. Students write critical observations and interpretations in response to art work. Prerequisite: upper-division art major.

ART E 515. Developing Visual Materials for Art Education (3). A production laboratory that emphasizes the integration and selection of appropriate visual media for art instruction. Prerequisite: ART E 310 or equivalent.

ART E 517. Student Teaching Seminar in Art (1). Analyzes problems encountered in the art classroom during student teaching. Requires concurrent enrollment in 8 hours of student teaching courses. Prerequisites: ART E 516 and departmental approval for student teaching.

ART E 550. Art Workshop (1-3). Repeatable for credit. Area covered is determined at the time the course is offered.

ART E 702. Metal Processes for Jewelry Construction (3). Emphasizes fabrication techniques, design analysis, and function of jewelry designed and produced by students and acknowledged craftsmen. Repeatable once for credit. Prerequisite: ART E 302 or instructor's consent.

ART E 718. Creative Behavior and Visual Thinking (3). Identification and application of theories for creative and critical thinking. Emphasizes strategies for problem-solving and visual thinking and procedures to implement these strategies. Student identifies an area for individual investigation. Repeatable once for credit.

ART E 711. Seminar in Art Education: Topic to be Announced (1-3). Supervised study and research of contemporary issues in art education. Repeatable for credit with advisor's consent.

ART E 712. Development of Art Understanding in the Educational Program (3). Includes readings, observation, and qualitative techniques in the development of concepts and materials for art understanding. Repeatable once for credit. Prerequisite: instructor's consent.

ART E 713. Fiber and Fabric Processes (1-3). Fiber processes using traditional and experimental techniques in woven forms and other structural techniques using natural and man-made fibers. Repeatable once for credit. Prerequisite: instructor's consent.

ART E 714. Aesthetics for the Classroom (3). Focuses on applying the issues and theories of aesthetics to the K-12 classroom. Students participate in discussions and demonstrations of these theories through critical and reflective writing, as well as curricular planning. Students consider aesthetic development and construct lessons to integrate strategies involving aesthetic concepts into their teaching.

ART E 715. Research Problems in Art Education (3). Orientation to research methods, findings, and designs related to the analysis of studies and current problems in art education. Repeatable once for credit. Prerequisite: instructor's consent.

ART E 719. Electronic Imaging (1-3). Emphasizes Macintosh and other computer processes and their application to art and art education. Students generate computer images using digitalizing, scanning, and animation with a variety of software and hardware. Makes application of this technology to problems of design, art history, and art criticism. Develops curriculum materials for art instruction employing computer graphic instruction. The graduate student prepares a research paper on a selected topic related to computer graphics and art learning.
The School of Music, which includes program areas of music education, musicology/composition, keyboard, strings, voice, and winds/percussion, offers courses and curricula designed to train and educate students who are planning careers in music. In addition, the School's offerings allow students to gain an understanding of music as a humanistic study. Recitals by students, faculty, and guests are augmented by the overall community programs in the fine arts.

Students in the School of Music enjoy the use of extensive facilities in the Duerksen Fine Arts Center and Wiedmann Hall; these include the Lewis and Selma Miller Concert Hall and the recital/concert auditorium in Wiedmann Hall, which was constructed in 1986 to house the first Marissen organ in North America.

Policies

Proficiency Examinations
Students eligible for University enrollment may enter a music degree program. However, majors in music must demonstrate their performance ability on a minimum of one instrument or in voice. After their initial registration, students have their proficiency judged by their major professor; thereafter, they must perform for a faculty jury each semester to determine their proficiency level and progress. Semester proficiency cards, on which progress is recorded, are maintained for each student.

All music majors must pass a piano proficiency examination. Entering students majoring in music whose background indicates that they are competent in piano may pass the requirement by special examination. Students who have not satisfied all piano proficiency requirements must enroll in class piano until they meet those requirements. Transfer students who submit proof of the completion of a comparable piano proficiency examination by official transcript or letter from their former institution are exempted from this requirement.

All proficiency examinations must be passed before a student is allowed to student teach.

Applied Music
Individual instruction is given in instruments and voice to develop musicianship, performance skills, and reading knowledge of music literature. Specific requirements for each level are set by the individual applied areas.

Applied students other than music majors must enroll in the appropriate non-major category.

Schedule of Courses. This will provide a 30-minute lesson per week.

One-credit hour enrollments are provided to music majors studying secondary instruments. These receive a 30-minute lesson each week and require a minimum of five hours of practice per week.

Two-credit hour enrollments are provided to majors and special music students. These receive either (1) a 30-minute private lesson (minimum) each week and a one-hour master class each week or (2) a one-hour lesson per week or other equivalent arrangements at the option of the instructor. Students are required to practice a minimum of ten hours each week.

Four-credit hour enrollments are provided to performance majors (junior and above) and special music students. These receive two 30-minute lessons each week (minimum) and a one-hour master class each week, or other equivalent arrangements at the option of the instructor. Students are required to practice a minimum of 20 hours per week.

Students receive academic credit for applied music instruction only when they are taught on the University campus by approved music faculty. Students wishing to drop an applied lesson registration must inform the instructor in person and secure his/her signature on the drop form before approval may be given by the college office.

Applied music students may enroll in the following classifications: freshmen and sophomores; MUS A 112 (non-majors), 231 and 232; juniors and seniors; MUS A 112 (non-majors), 431, 432, and 434*; and graduate students; MUS A 712 (non-majors), 731, 732, and 734*.

These applied music courses are repeatable for credit.

Prior to graduation, all music majors must achieve an acceptable level of performance proficiency, which is determined by the faculty according to each student's degree program. In addition, students may be required to pass an examination on materials in their chief performance medium.

Recitals
All music majors are required to enroll in four semesters of MUS P 650, Recital*, and attend a minimum of 14 specified recitals and concerts sponsored by the School of Music each of the semesters. For majors other than BA, performance of the senior recital fulfills a fifth semester recital requirement; they must be enrolled in Recital during that semester (MUS. 400 for BME and BM majors; MUS. 450 for accompanying majors). Senior recital is not required for the BA in music.

All music majors are required to declare a chief performance medium. BM and BME majors are required to present a public or jury recital prior to graduation. The decision as to whether the performance will be jury or public is made by an examining committee. Students present to the examining committee a projected senior recital program and the examining committee determines: (1) the suitability of the projected program, (2) the capability of the student to perform the program publicly, or (3) the advisability of performing the senior recital before a faculty jury in lieu of a public recital.

Further recital specifications are found under graduation requirements for Bachelor of Music in Theory-Composition.

No music major may prepare or perform the senior recital without the guidance of a School of Music faculty member. In the event the required applied music credit hours have been earned prior to the recital presentation, music majors must continue to enroll (2 credit hours minimum) in their major instrument through the preparation for and the performance of the recital.

The required number of credit hours must be earned in an applied instrument even though there may be credits to complete after the senior recital has been performed.

*See BME degree requirements for specific recital requirements in these degree plans.

Graduation Requirements
Bachelor of Music Requirements
Students receiving the BM choose either a performing major (piano, organ, voice, strings, wind, or percussion) or theory-composition as their major area of concentration.

The general graduation requirements of the University must be met as described in the Catalog under General Education Program. In addition, certain music requirements must be met for the different degree emphases in the School of Music.

All students must earn 45+ hours of credit in upper-division courses.

BM in Theory-Composition

Area

Applied Music
Chief performing medium (piano, organ) .................. 18
Other performing medium ........................................ 3
or Chief performing medium (non-keyboard) ........................ 1
Keyboard performing medium ..................................... 1
Other performing media ............................................ 1

Theory and Composition
MUS C 127-129, 128-130, 227-229, 228-230, 259, 260, 523, 561, 564, 641, 660, 661, 671, 672

History and Literature of Music
MUS C 113, 334, 335, and 3 hours of upper-division electives in music history or literature

Conducting
MUS P 217 or 218 and 651 or 691

Ensembles

Electives (music or non-music courses) .......................
Recital attendance (four semesters of MUS P 650) .......... Senior Recital (MUS C 400)

*See degree checklists for specified ensembles.

Ensembles are counted by semester.
Theory-composition majors are required to present public performance a selection of their compositions representing large and small forms, totaling a minimum of 20 minutes. Students must submit completed scores representing a majority of the program to the examining committee the semester prior to that of the proposed recital; the examining committee shall determine the acceptability of the program. The composition or compositions must be submitted in a minimum of two copies, one manually in ink or by laser printer using an approved music typesetting computer program. These copies must represent a high quality of manuscript technique or music typesetting. In addition, students may elect to present a second recital in their chief performing medium with the permission of the their applied music instructor and achievement of junior proficiency in that instrument.

**BM in Performance — Instrumental Emphasis**

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<tr>
<th>Area</th>
<th>Hrs.</th>
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<tr>
<td>Applied Music</td>
<td>26</td>
</tr>
<tr>
<td>Chief performing medium</td>
<td>24</td>
</tr>
<tr>
<td>Second performing medium (four semesters)</td>
<td>4</td>
</tr>
<tr>
<td>Theory</td>
<td>22</td>
</tr>
<tr>
<td>MUS C 127-129, 128-130, 227-229, 228-230, 523, 561 or 661 and 641, or 345, or 753</td>
<td></td>
</tr>
<tr>
<td>History and Literature of Music</td>
<td>12</td>
</tr>
<tr>
<td>MUS C 113, 334, and 355 and 3 hours of Music History or Literature elective</td>
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</tr>
<tr>
<td>Conducting</td>
<td>4</td>
</tr>
<tr>
<td>MUS P 217 and 651</td>
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</tr>
<tr>
<td>Ensembles</td>
<td>10</td>
</tr>
<tr>
<td>Electives (music courses)</td>
<td>10</td>
</tr>
<tr>
<td>Pedagogy (MUS P 620 for violin/viola; MUS P 680 for woodwind; MUS P 681 for brass; MUS P 682 for percussion; MUS P 790 for all other instrumental BM majors)</td>
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<tr>
<td>Senior Recital (MUS P 400)</td>
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</tr>
<tr>
<td>Recital attendance (specified number of recitals per semester for four semesters, MUS P 050)</td>
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</tr>
</tbody>
</table>

*See degree check sheets for specified ensembles.
Ensembles are counted by semester.

**BM in Performance — Keyboard Emphasis**

<table>
<thead>
<tr>
<th>Area</th>
<th>Hrs.</th>
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<tbody>
<tr>
<td>All Programs</td>
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<tr>
<td>Applied Music</td>
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</tr>
<tr>
<td>Chief performing medium (see specific major below)</td>
<td></td>
</tr>
<tr>
<td>Second performing medium</td>
<td>4</td>
</tr>
<tr>
<td>Theory</td>
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<td>MUS C 113, 334, and 355</td>
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<tr>
<td>Conducting</td>
<td>4</td>
</tr>
<tr>
<td>MUS P 217 or 218 and 651 or 691</td>
<td></td>
</tr>
<tr>
<td>Ensembles (see specific major below)</td>
<td></td>
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</table>

<table>
<thead>
<tr>
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<tbody>
<tr>
<td>Piano Pedagogy Emphasis</td>
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<tr>
<td>Applied Piano</td>
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<tr>
<td>Second Performing medium</td>
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</tr>
<tr>
<td>MUS P 107-107, Piano Repertoire</td>
<td>6</td>
</tr>
<tr>
<td>MUS P 580, Piano Pedagogy</td>
<td>2</td>
</tr>
<tr>
<td>MUS P 561, Piano Teaching Materials</td>
<td>2</td>
</tr>
<tr>
<td>MUS C 792 and 783, Piano Literature</td>
<td>6</td>
</tr>
<tr>
<td>MUS P 790, Special Topics (designated)</td>
<td>4</td>
</tr>
<tr>
<td>Ensembles</td>
<td>8</td>
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**Specific Keyboard Program Requirements**

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<td>Applied Piano</td>
<td>24</td>
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<tr>
<td>Second Performing medium</td>
<td>4</td>
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<tr>
<td>MUS P 250 and 251, Applied Piano Concerto</td>
<td>4</td>
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<tr>
<td>MUS P 107-107, Piano Repertoire</td>
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<tr>
<td>MUS P 580, Piano Pedagogy</td>
<td>2</td>
</tr>
<tr>
<td>MUS C 782 and 783, Piano Literature</td>
<td>6</td>
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</table>

<table>
<thead>
<tr>
<th>Ensurers (four semesters of accompanying required for all Bachelor of Music piano majors and 4 hours of appropriate ensemble. Keyboard scholarship recipients are required to enroll in accompanying or an ensemble each semester they hold a scholarship.</th>
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</thead>
<tbody>
<tr>
<td>MUS P 300, Junior Recital (piano)</td>
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<tr>
<td>MUS P 400, Senior Recital (piano)</td>
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**Recital Attendance**

| MUS P 050 (enrollment for four semesters in a specified number of recitals) | 4 |

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</tr>
<tr>
<td>Electives</td>
<td>15</td>
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</tbody>
</table>
BM with Elective Studies in Business

**Area**

**Applied Music** .................................................. 20

Chief performing medium ........................................ 16

Second performing medium (four semesters) .................. 4

**Theory** ............................................................... 20

MUS C 127-129, 128-130, 227-229, 228-230, 561 or 661, 641 or 753 or 345

History and Literature of Music .................................. 9

MUS C 113, 334, and 335

**Conducting** .......................................................... 4

MUS P 217 or 218 and 651 or 691

Ensembles* .............................................................. 8 or 10

Electives ................................................................. 3-5

Vocal majors require three division classes

Piano majors require MUS P 580

Senior Recital (MUS P 400) ......................................... 1

Recital attendance (specified number of recitals) .......... 4 per semester for four semesters, MUS P 050

**Business Requirements** ........................................... 21

Cons 201, 202 (6); ACCT 210, MGMT 300 (3); FIN 340 (3); MKT 300 & B LAW 431 (3)

---

BM with Elective Studies in Journalism

**Area**

**News Editorial Emphasis**

**Area**

**Applied Music** .................................................. 20

Chief performing medium ........................................ 16

Second performing medium (four semesters) .................. 4

**Theory** ............................................................... 20

MUS C 127-129, 128-130, 227-229, 228-230, 561 or 661, 641 or 753 or 345

History and Literature of Music .................................. 9

MUS C 113, 334, and 335

**Conducting** .......................................................... 4

MUS P 217 or 218 and 651 or 691

Ensembles* .............................................................. 8 or 10

Electives ................................................................. 3-5

Vocal majors require three division classes

Piano majors require MUS P 580

Senior Recital (MUS P 400) ......................................... 1

Recital attendance (specified number of recitals) .......... 4 per semester for four semesters, MUS P 050

**Journalism Requirements** ........................................ 24

COMM 130 (3); 301 (3); 304 (3); 324 (3); 502 or 525 (3); 590 (3); 630 (3); 675 (3)

---

BM with Elective Studies in Journalism

**Broadcasting Emphasis**

**Area**

**Applied Music** .................................................. 20

Chief performing medium ........................................ 16

Second performing medium (four semesters) .................. 4

**Theory** ............................................................... 20

MUS C 127-129, 128-130, 227-229, 228-230, 561 or 661, 641 or 753 or 345

History and Literature of Music .................................. 9

MUS C 113, 334, and 335

**Conducting** .......................................................... 4

MUS P 217 or 218 and 651 or 691

Ensembles* .............................................................. 8 or 10

Electives ................................................................. 3-5

Vocal majors require three division classes

Piano majors require MUS P 580

Senior Recital (MUS P 400) ......................................... 1

Recital attendance (specified number of recitals) .......... 4 per semester for four semesters, MUS P 050

**Journalism Requirements** ........................................ 24

COMM 130 (3); 301 (3); 304 (3); 324 (3); 502 or 525 (3); 590 (3); 630 (3); 675 (3)

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*See degree checklists for specified ensembles.

**Ensembles** are counted by semester.

---

**Bachelor of Music Education—Instrumental**

**Area**

**Music Requirements** ............................................. 16

**Applied Music** .................................................. 30

Primary medium .................................................... 15

Secondary medium .................................................. 5

Students must be enrolled in applied music during the semester of their senior recital.

**General Music** .................................................... 33-37

**Theory** ............................................................... 24

MUS C 127-129, 128-130, 227-229, 228-230, 522, 26

History and Literature of Music .................................. 9

MUS C 113, 334, 335

**Conducting** .......................................................... 4

MUS 217, 651

**Additional Requirements** ....................................... 4

MUS P 207, 407 (piano majors only)

Ensembles* .............................................................. 8 or 10

Recital attendance (two semesters of MUS P 050)

**Senior Recital (MUS P 400)** ..................................... 1

**Music Education Requirements**

Introduction ........................................................... 2

MUS E 171, 271

Core I

---

*See degree checklists for specified ensembles.

**Ensembles** are counted by semester.
Bachelor of Music Education — Vocal/Keyboard

Music Requirements

**Applied Music**
- primary medium: 16
- secondary medium: 2

Students must be enrolled in applied music during the semester of their senior recital.

**General Music**
- Theory: 20
- History & Literature of Music: 9
- Conducting: 4
- Additional Requirements: 10
- MUS E 204, 303, or 304, 317, 318, 611

**Bachelor of Arts in Music**
Students who wish to earn a Bachelor of Arts in music are required to complete courses in Fairmount College of Liberal Arts and the College of Fine Arts as indicated in the music degree check sheets and to elect 50 music hours as specified in the following areas and course listings.

**Music Education Requirements**
- Introduction: 3
- Core I: MUS E 171, 271
- Core II: MUS C 334, CI 311, 321, MUS E 317, 611
- Core III: MUS C 433, MUS E 303, 305, 323
- Core IV: MUS E 405, 451, 469
- Additional Requirements: 4
- MUS E 241, 242, 342

**Bachelor of Special Music Education**

**Music Requirements**

**Applied Music**
- primary medium: 16
- secondary medium: 2

Students must be enrolled in applied music during the semester of their senior recital.

**General Music**
- Theory: 20

**Music Minor**
A minor in music is available to any student whose major field or area of emphasis is outside the School of Music. A music minor consists of 20 hours as indicated: MUS C 113, 127, 128, 130, and 9 additional hours selected from among the following: MUS C 160, 227, 228, 229, 230, 334, 335, 523; music applied (4-hour maximum), and music ensembles (4-hour maximum).

Music Education (MUS E)

**Lower-Division Courses**

**MUS E 171. Orientation to Music Education (1).** Look at the concepts of comprehensive musicianship and develop strategies for leading music activities in a variety of scenarios. Learn observation techniques appropriate for viewing a wide range of instrumental and vocal performances.

**MUS E 204. Fundamentals of Instrumental Music for Secondary Schools (2).** Techniques and materials for teaching instrumental music in junior and senior high schools. Emphasizes instrumental organization and administration, pedagogical practices, laboratory exercises, guiding and training, evaluation, and professional responsibilities. For students primarily interested in teaching instrumental music in the secondary schools. Includes teaching techniques for band and orchestra. Grades B-12. Prerequisite: music education major or instructor’s consent.

**MUS E 235. Methods of Teaching Orchestral Instruments (Violin and Viola) (3).** Procedures and materials for class and private teaching. Includes performance and fundamentals in first position and theory and reading knowledge of positions two through five. Includes band and orchestra laboratory. Grades 4-12.

**MUS E 236. Methods of Teaching Orchestral Instruments (Cello and Strings Bass) (3).** Procedures and materials for class and private teaching. Applies fundamental techniques. Includes knowledge of more difficult passages and special techniques. Includes band and orchestra laboratory. Grades 4-12.

**MUS E 237. Methods of Teaching Band and Orchestral Instruments (Clarinet and Saxophone) (3).** Prepares the prospective instrumental music instructor to effectively teach clarinet and saxophone in the public school setting. Includes discussions of teaching techniques, identification of problems peculiar to each instrument, care and minor repair, instructional materials, lesson selection and adjustment, instrument brands, and the development of sufficient playing skills. Grades 4-12.

**MUS E 238. Methods of Teaching Band and Orchestral Instruments (Flute and Double Reed) (3).** Prepares the prospective instrumental music instructor to effectively teach flute and double reeds in the public school setting. Includes discussions of teaching techniques, identification of problems peculiar to each instrument, care of instrument, instructional materials, instrument brands, and the development of sufficient playing skills. Grades 4-12.
MUS E 239. Methods of Teaching Band and Orchestral Instruments (Brass) (1). Procedures and materials for class and private teaching of all brass instruments, emphasizing tone qualities, differences in embouchure, and necessary techniques for performance. Grades 4-12.

MUS E 240. Methods of Teaching Band and Orchestral Instruments (Percussion) (1). Procedures and materials for class and private instruction. Includes application of snare drum fundamentals and a study of basic techniques for all percussion instruments. Grades 4-12.

MUS E 241. String Rehearsal Methods (1). String rehearsal techniques and materials for grades 4 through 12. Required of majors on choral/keyboard program and choral/keyboard majors on special music education program.

MUS E 242. Wind and Percussion Rehearsal Methods (1). Wind and percussion techniques and materials for grades 4 through 12. Required of majors on choral/keyboard program and choral/keyboard majors on special music education program.

MUS E 271. Introduction to Music Education (2). Demonstrate familiarity with the scope and program of K-12 music education. Articulate a current music education philosophy while developing leadership skills for a variety of music activities and teaching scenarios. Prerequisite: MUS E 171.

Upper-Division Courses

MUS E 303. Survey of Vocal Music for Elementary Schools (3). An overview of activities in the elementary general music program. Includes a study of objectives for elementary classes and consideration of materials and methods. Includes autoharp, recorder techniques, and music theatre for public schools. For students primarily interested in teaching music in the elementary schools. Grades K-8. Prerequisite: MUS E 323.

MUS E 304. Survey of Instrumental Elementary School Music (3). A survey of methods and materials in the elementary school instrumental program of instruction. For students primarily interested in teaching instrumental music in the elementary schools. Prerequisite: MUS E 264. Grades 4-8.

MUS E 305. Pre-Student Teaching (2). This field-based course allows the student to spend extended time in an appropriate music classroom working with a cooperating teacher. The experience will provide opportunities for the student to plan and design instruction, implement instruction, and reflect on the role of practitioner. Prerequisites: acceptance into teacher education and instructor’s consent.

MUS E 309. Survey of Music for Special Education (3). Consideration of methods and problems in preparation for student teaching of music with special education students at early childhood elementary and secondary levels in public schools. Includes musical settings (well-contained and mainstreamed) in regular and alternative schools and classes, identification, objectives, appropriate activities, materials, and planning and implementation techniques. Also includes observation, demonstration-participation experiences, and/or media presentations. Grades K-12. Prerequisites: MUS E 204 or 322 with instructor’s consent.

MUS E 317. Literacy Strategies for Content Areas Music (2). Covers principles and strategies used in effective instruction, including vocabulary development and comprehension skills needed to more fully read and learn in content areas. Students will receive training to use the 6-trait Analytical Rating Guide for assessing writing, which is the method used to score the Kansas State Writing Assessment. Prerequisites: acceptance into teacher education, MUS E 303/304 or instructor’s consent.

MUS E 321. Fundamentals of Vocal Music for Secondary Schools (3). The teaching of music in the secondary school, consideration of objectives, and examination of materials. For students primarily interested in teaching music in secondary schools; includes observation in public schools. Grades 6-12. Prerequisite: MUS E 308 or music education major or instructor’s consent.


MUS E 324. Survey of Choral Techniques and Literature (2). A study of basic techniques of ensembles and examination of literature for large and small ensembles. Includes song leading. Required for all music education majors. Grades 6-12. Prerequisite: MUS E 217 or 218.

MUS E 351. Fundamentals of Piano for the Classroom Teacher (3). For students planning to teach in the elementary school classroom. Includes basic fundamentals of music emphasizing development of student’s music ability in singing, playing the piano, and classroom instruments.

MUS E 405. Student Teaching Seminar (2). Emphasizes special problems related to preparation for student teaching; consideration of the vocal and general music programs at all levels. Prerequisites: MUS E 303 and 322 or 309 for special music education majors. Includes content area reading modules. To be taken during student teaching semester. Grades K-12.

MUS E 431. Student Teaching in the Elementary School: Music (5). Prerequisites: acceptance into teacher education, CI 328, CESP 433, methods in the subject area, and concurrent enrollment in CI 457 and student teaching seminar.

MUS E 432. Student Teaching in Special Music Education (2). This practicum is designed to allow students to spend a designated portion of a semester in an appropriate special music education classroom setting working with a cooperating teacher who has special music education training and experience. The student and cooperating teacher, with the approval of the university supervisor, will devise a plan for the student teacher to assume full responsibility for the classroom(s) for a designated period of time during the semester. Prerequisites: an appropriate ISAM course (MUS E 303/304 and 309), Pre-Student Teaching, CESP 433, concurrent enrollment in student teaching seminar.

MUS E 469. Student Teaching: Secondary Music (5). Prerequisites: acceptance into teacher education, methods in the subject area, CI 312 and 329, CESP 433, 2500 GPA in major, and concurrent enrollment in CI 457 and student teaching seminar.


Courses for Graduate/Undergraduate Credit

MUS E 505. Music Fundamentals for the Classroom Teacher (2-3). Methods and materials for teaching music in the pre-school and kindergarten classroom. Includes the development of the child’s musical growth through singing, listening, rhythmic, and creative activities; a survey of available materials and development of playing, singing, and conducting skills.

MUS E 611. Music for Special Education (2). Open to upper-division or graduate students and intended for the potential practicing music teacher, classroom teacher, or special education teacher. Includes identification of dysfunctioning children and their problems and current theory and practices in special music education. Satisfies the requirement, effective September 1, 1983, that applicants for initial certification or renewal of secondary and/or elementary certification shall present a survey course, or equivalent content from other courses, in the subject area of exceptional children. This provision applies to initial certification and recertification of music teachers only, grades K-12.

MUS E 686. Marching Band Techniques (2). A systematic approach to the marching band with regard to organization, show development, instrumentation, music adaptation, drill construction, and script development. Teaches both traditional and corps-style marching utilizing manual methods and computer-generated graphics. Field observations, field photographs, and live performances by marching bands complement the class syllabus. Required for all instrumental majors.

MUS E 732. Music in the Junior High School (3). Includes administrative structures, the curriculum, adolescent development, teaching as behavior, and competencies needed for successful teaching of general and choral music in grades 6-8.

MUS E 758. Music Education Workshop (1-4). Repeatable for credit.

MUS E 781. Cooperative Education (1-8). A field placement which integrates course work with a planned and supervised professional experience designed to complement and enhance the student’s academic program. Individualized programs must be formulated in consultation with and approved by appropriate faculty sponsors and cooperative education...
Music Performance

Applied Music Private Study (MUS A)

- **MUS A 112.** Applied Music Instruction for Non-majors (2). Basic applied instruction for persons who are not active in a music degree program. May not be used to fulfill music degree requirements. Repeatable.

- **MUS A 231 (F).** For majors only; study on secondary instruments. Basic instruction. Repeatable for credit. Lower division.

- **MUS A 232 (F).** For majors only. Repeatable for credit. Lower division.

- **MUS A 431 (F).** For majors only; study on secondary instruments. Basic instruction. Repeatable for credit. Upper division.

- **MUS A 432 (F).** For majors only. Repeatable for credit. Upper division.

- **MUS A 434 (F).** For performance, pedagogy, and accompanying majors only. Repeatable for credit. Upper division.

- **MUS A 712.** Applied Music Instruction for Non-majors (2). Basic applied instruction for persons who are not active in a music degree program. May not be used to fulfill music degree requirements. Repeatable for credit.

- **MUS A 721 (F).** For majors only; study on secondary instruments. Basic instruction. Repeatable for credit. Graduate.

- **MUS A 722 (F).** For majors only. Repeatable for credit. Graduate.

- **MUS A 734 (F).** For performance and pedagogy majors or students preparing for master’s degree recitals only. Repeatable for credit. Graduate.

### Applied Music Classes (MUS A)

- **MUS A 113P.** Piano Class. Level 1 (F). Non-piano music majors. Class piano prepares the student to pass the piano proficiency exam. Required of all music majors. Repeatable for credit. Prerequisite: class placement interview.

- **MUS A 114P.** Piano Class. Level 2 (F). Non-piano music majors. Repeatable for credit. Prerequisite: class placement interview.

- **MUS A 115P.** Piano Class. Level 3 (F). Non-piano music majors. Repeatable for credit. Prerequisite: class placement interview.

- **MUS A 116P.** Piano Class. Level 4 (F). Non-piano music majors. Repeatable for credit. Prerequisite: class placement interview.

- **MUS A 117P.** Piano Class (F). Non-piano music majors. Prerequisite: class placement interview. Repeatable.

- **MUS A 117W.** Violin Class for Adult Beginners (F). Beginning violin class violin fundamentals; emphasizing tone and intonation development; basic techniques for reading (notes and rhythm). May not be applied to music major requirements. Repeatable for credit.

- **MUS A 118P.** Piano Class (F). Non-piano music majors. Prerequisite: class placement interview. Repeatable.

- **MUS A 119P.** Piano (F). Non-piano music majors. Prerequisite: class placement interview. Repeatable.

- **MUS A 120P.** Piano for Fun—Non-majors (F). Non-majors. Repeatable.

- **MUS A 2220.** Voice—Musical Theatre (F). Applied voice instruction emphasizing musical theatre techniques. Students work on repertoire from “legit” and “belt” repertoire.

- **MUS A 4320.** Voice for Musical Theatre (F). See MUS A 2220.

- **MUS A 717W.** Violin Class for Adult Beginners (F). Beginning violin class violin fundamentals; emphasizing tone and intonation development; basic techniques for reading (notes and rhythm). May not be applied to music major requirements. Repeatable for credit.

### Applied Music Media Designations

|----------------------------------|------------|----------|------------|-------------|---------|---------------|--------|------|-------|--------|-------------|

### General Performance (MUS P)

#### Non-credit Courses

- **MUS P 060.** Recital (1). Recital attendance and performance. Laboratory observation of performance media, literature, and recital techniques. Election is required for BE and BM majors according to the requirements of the degree checklist at the time of enrollment. Repeatable.

- **MUS P 080.** Topics in Music (1-3). Topics exploring events, conditions, relationships, styles, etc. in music. See Schedule of Courses for current listing. Not applicable to degree. Repeatable.

#### Lower-Division Courses

- **MUS P 121.** Italian Diction (1). For the vocal performer, including a comprehensive study of Italian consonant and vowel sounds.

- **MUS P 122.** English Diction (1). For the vocal performer, including a comprehensive study of English consonant and vowel sounds.

- **MUS P 145.** Double Reed-Making and Adjusting (1). Making and adjusting oboe, English horn, and bassoon reeds. Repeatable for credit. Prerequisite: MUS E 236 or instructor’s consent.

- **MUS P 150.** Music Performance Workshop (1-4). Repeatable for credit.

- **MUS P 207.** Piano Repertoire (1-3). Gives performing and listening experience to piano majors. Repeatable for credit.

- **MUS P 210-211-212-213-214.** Ensembles (1 except 210B, 211A, 212F [A Cappella Choir], 213B, 213F [Concert Chorale]). 21: (A) Orchestra; (B) Symphonic Wind Ensemble; (C) Gospel Ensemble; (D) A Cappella Choir; University Singers; Concert Chorale; (H) Band I; (J) Piano Accompaniment; (L) Madrigal Singers; Chamber Singers; (N) Woodwind Ensemble; (O) Saxophone Quartet; (P) Brass Chamber Ensemble; (E) Percussion Ensemble; (S) Beginning String Ensemble and String Chamber Ensemble; (T) Jazz Arts Ensembles I and II; (V) Guitar Ensemble; (W) International Choir; (X) New Music Ensemble. Prerequisite: audition required. Repeatable for credit.

- **MUS P 211E.** Opera Lab (1). Provides opportunities for students to perform staged arias, scenes, and one act operas. Students who audition for Opera Theatre but are not cast should enroll in Opera Lab. Those interested in stage management, directing, and backstage work may also enroll. Audition is required.

- **MUS P 211K.** Opera Theatre (1). Provides the opportunity for students to gain performance experience as a chorus member in fully staged, high quality productions of a diverse repertoire with orchestra accompaniment. Prerequisite: audition required. Repeatable for credit.
MUS P 211U, Musical Theatre Performance (1). Cross-listed as DANCE 320 and THEA 189E. An interdisciplinary practicum class for students cast in a musical theatre production. Admission is by audition. Gain rehearsal and performance experience in a Mainstage production with orchestra. Rehearsals are in the evenings for 6-10 weeks. Repeatable for credit.

MUS P 212K. Opera Theatre (2). Provides the opportunity for students to gain performance experience as a supporting cast member in fully staged, high quality productions of a diverse repertory with orchestra accompaniment. Prerequisite: audition required. Repeatable for credit.

MUS P 215. Voice for Musical Theatre (2). Studies vocal techniques necessary for performance in contemporary musical theatre productions, including belt and legitimate styles. Repeatable for credit. Prerequisite: musical theatre major.

MUS P 217. Instrumental Conducting (2). Fundamentals of baton technique, elementary score reading and musical leadership. Practical experience in conducting laboratory and classroom groups. Prerequisites: MUS C 128 and 130.

MUS P 218. Choral Conducting (2). Fundamentals of conducting, score reading, and rehearsal techniques. Practical experience conducting classroom groups. Prerequisites: MUS C 128 and 130.

MUS P 221. German Diction (1). For the vocal performer, including a comprehensive study of German consonant and vowel sounds.

MUS P 222. French Diction (1). For the vocal performer, including a comprehensive study of French consonant and vowel sounds.


MUS P 251. Cooperative Education (1-8). A field placement which integrates course work with a planned and supervised professional experience designed to complement and enhance the student's academic program. Individualized programs must be formulated in consultation with and approved by appropriate faculty sponsors and cooperative education coordinators. Students may follow one of two scheduling patterns: parallel, enrolling concurrently in a minimum of 6 hours of course work in addition to their Co-op assignment; alternating, working full time one semester in a field study and returning to full school enrollment the following semester, such students need not be concurrently enrolled in any other course. Prerequisite: successful completion of the freshman year and satisfactory academic standing prior to the first job assignment. May be repeated for credit. Offered Cr/No Cr only.

MUS P 300. Junior Recital (1). Required for BM piano majors, performance or accompanying emphasis. Prerequisite: departmental consent.

MUS P 330. Musical Theatre Workshop I (2). Cross-listed as DANCE 301L and THEA 330. An interdisciplinary practicum class with opportunities for student performers to refine rehearsal and performance skills necessary to musical theatre. Students prepare songs and scenes and staging from the musical theatre repertory culminating in a workshop performance. Admission is by audition.

MUS P 340. Vocal Coaching (1). Vocal coaching offers intense focus on the dramatic, musical, and stylistic interpretation of vocal music and opera literature. Prerequisites: Upper class or graduate level majors only, and permission of the instructor.

MUS P 400. Senior Recital (1). Prerequisite: departmental consent.

MUS P 407. Piano Repertoire (1-3). Gives performing and listening experience to piano majors. Repeatable for credit.


MUS P 411E, Opéra Lab (1). See MUS P 211E.

MUS P 411K. Opera Theatre (1). See MUS P 211K.

MUS P 411U. Musical Theatre Performance (1). Cross-listed as DANCE 320 and THEA 300E. See MUS P 211U.

MUS P 412K. Opera Theatre (2). See MUS P 212K.

MUS P 414K. Opera Theatre (4). Provides the opportunity for students to gain performance experience with a major role in fully staged, high quality productions of a diverse repertory with orchestra accompaniment. Prerequisite: audition required. Repeatable for credit.

MUS P 415Y. Voice for Musical Theatre (2). Studies vocal techniques necessary for performance in contemporary musical theatre productions, including belt and legitimate styles. Repeatable for credit. Prerequisite: musical theatre major.


MUS P 450-451. Accompanying Recital (1-1). Required for BM piano majors, accompanying emphasis. Prerequisite: departmental consent.


MUS P 530. Musical Theatre Workshop (3). An interdisciplinary practicum course with opportunities for student performers to refine techniques by performing scenes from a variety of musical theatre genres, including operetta, book musicals, and rock musicals. Advanced students gain experience in directing and choreographing under faculty guidance and supervision. Jr. or Sr. Musical Theatre, Dance, and Voice majors only; and/or permission of the instructors.

MUS P 555. Senior Project (1). Cross-listed as THEA 555. An interdisciplinary course to showcase the talents of graduating seniors to professional producers, agents, and casting directors. Students develop and produce a variety show, demonstrating their talents in singing, dancing, acting, directing, and choreography. For majors only. Prerequisite: instructor's consent.

MUS P 590. Piano Pedagogy (2). Primarily the art and science of teaching. Includes observations of master teachers in the University and community.


MUS P 620. String Pedagogy: Violin and Viola (2). Required for violin and viola performance majors. A study of tutorial techniques for violin and viola, including the teaching of mini-lessons for instructor and class critique. Prerequisite: violin or viola performance capability or instructor's consent.

MUS P 625. Voice Pedagogy (2). Acquaints the voice major with vocal techniques, concepts, and materials of private and class instruction.

MUS P 651. Advanced Conducting and Score Reading (3). Baton technique, score reading, and musicianship. Prerequisite: MUS P 217 or 218 or equivalent.

MUS P 680. Woodwind Pedagogy (2). A comprehensive study of woodwind instrument techniques, concepts, and materials of studio instruction for the advanced student, including the teaching of mini-lessons for instructor and class critique. Prerequisite: performance capability on a woodwind instrument or instructor's consent.

MUS P 681. Brass Pedagogy (2). A comprehensive study of brass instrument techniques, concepts, and materials of studio instruction for the advanced student, including the teaching of mini-lessons for instructor and class critique. Prerequisite: performance capability on a brass instrument or instructor's consent.

MUS P 682. Percussion Pedagogy (2). A comprehensive study of percussion instrument techniques, concepts, and materials of studio instruction for the advanced student, including the teaching of mini-lessons for instructor and class critique.
MUS P 761. Studio Piano Practicum (3). Supervised studio teaching for graduate students. Prerequisites: MUS P 580 and 561.

MUS P 782. Opera Styles (2). A comprehensive study of the performance styles and practices in operatic singing, ranging from the seventeenth century to the present. Prerequisite: professor's permission.

MUS P 773. Acting for Singers (3). A study of the external and internal techniques of acting for the singer, emphasizing characterization and development of a role, to ensure that students have the necessary understanding and skills to integrate the acting process while singing. Prerequisite: instructor's consent.

MUS P 790. Special Topics in Music (1-3). For individual or group instruction. Repeatable with departmental consent.

MUS P 790E. Musical Theatre and Opera Audition (1). Cross-listed as THEA 680. A practicum course which develops techniques and audition repertoire singers will need to gain professional employment and/or successfully compete for placement in advanced training programs. Also covers the business skills necessary to a professional career, and brings students into contact with professional guest artists who can provide additional insight and contacts. Prerequisite: instructor's consent.

Please see the Graduate Catalog for courses numbered 800 and above.

Musicology-Composition (MUS C)

Lower-Division Courses

MUS C 200. Fundamentals of Music (1). Intended for those who do not read music and/or who need additional help in the fundamentals of music. Includes the staff, clefs, keys, meter, tempo, rests, and other basic knowledge.

MUS C 113. Introduction to Music Literature (3). An introduction to the masterpieces of music literature. Includes comparison of contrasting styles of both Western and non-Western music. For general students with some musical background to 160. Required for music majors.

MUS C 114. Music Literature Survey (2). A survey of representative works from the vocal and instrumental repertoire. Prerequisite: MUS C 113 or instructor's consent.

MUS C 127. Theory I (2). Fundamentals of music: melodic writing and analysis, elementary harmonic background and contrapuntal relationships applied to literature from all periods of music. Studies one selected score being performed during the semester by a University ensemble. Prerequisite: concurrent enrollment in MUS C 129.

MUS C 127H. Theory I Honors (2). Fundamentals of music: melodic writing and analysis, elementary melodic formal structures (cadence, phrase, period), simple harmonic relationships, and fundamental voice-leading techniques. Prerequisites: concurrent enrollment in MUS C 129 and departmental consent.

MUS C 128. Theory II (2). A continuation of Theory I. Formal expansion includes binary and ternary structures. Further elaborates basic harmonic structures. Studies another score being performed by a University ensemble. Prerequisites: MUS C 127 and concurrent enrollment in MUS C 129 or 130.

MUS C 128H. Theory II Honors (2). Formal expansion includes binary and ternary structures. Further elaborates basic harmonic structures. Prerequisites: MUS C 127 or 127H, concurrent enrollment in MUS C 129 or 130, and departmental consent.

MUS C 129. Aural Skills I (2). Recognition, singing, and dictation of melodies from all periods of music. Emphasizes interval training. Instruction assisted by computer. Partially fulfills State Certification and Teacher Education Regulation gl-1-88: "the ability to teach reading skills appropriate to the level of the student and to the subject content."

MUS C 130. Aural Skills II (2). Continuation of melodic, rhythmic perception. Includes recognition and dictation of diatonic harmonic structures. Instruction assisted by computer. Partially fulfills State Certification and Teacher Education Regulation gl-1-88: "the ability to teach reading skills appropriate to the level of the student and to the subject content."

MUS C 160. The Heritage of Western Music (3). General education introductory course. Acquaints the non-major with the central tradition of Western music. Emphasizes the development of listening techniques by which the student may perceive and understand fundamental musical processes as they exist in the various styles within the Western heritage.

MUS C 161. Music through the Ages (3). General education further study course. Open to all students, particularly those involved in alternative schedules. Helps students develop the capacity for critical music listening and an appreciation for all musical styles. Telecourse.

MUS C 162. World Music (3). General education introductory course. A view of music as a global and cultural art form. For the general student to better understand the importance and significance of music in all world cultures.

MUS C 227. Theory III (2). The study of contrapuntal forms and textures from music of all periods. Explores melodic, harmonic, and rhythmic aspects of this music, as well as basic orchestration techniques related to these textures. Includes study of an appropriate score being performed by a University ensemble. Prerequisite: MUS C 128.

MUS C 227H. Theory III Honors (2). See MUS C 227. Prerequisites: MUS C 128 or 128H and departmental consent.
MUS C 228. Theory IV (2). Study of the larger homophonic forms (sonata, rondo) using techniques acquired in previous semesters. Includes analysis of an appropriate score being performed by a University ensemble. Partially fulfills State Certification and Teacher Education Regulation gl-1-80: "the ability to teach reading skills appropriate to the level of the student and to the subject content." Prerequisite: MUS C 227.

MUS C 228H. Theory IV Honors (2). See MUS C 228. Prerequisites: MUS C 227 or 227H and departmental consent.

MUS C 229. Aural Skills III (2). Recognition, singing, and dictation of contrapuntal textures with continued harmonic practice emphasizing elementary chromaticism. Instruction assisted by computer. Partially fulfills State Certification and Teacher Education Regulation gl-1-80: "the ability to teach reading skills appropriate to the level of the student and to the subject content." Prerequisite: MUS C 229.

MUS C 230. Aural Skills IV (2). Summation and expansion of previous skills further emphasizing harmonic chromaticism and tonal contexts. Instruction assisted by computer. Partially fulfills State Certification and Teacher Education Regulation gl-1-80: "the ability to teach reading skills appropriate to the level of the student and to the subject content." Prerequisite: MUS C 229.

MUS C 245. Jazz Improvisation (2). Melodic, harmonic, and rhythmic creation emphasizing the relationship of scale patterns and seventh chords. Repeatable for credit. Prerequisites: MUS C 125 and 130 or instructor's consent.

MUS C 259 & 260. Applied Composition (2&2). Individual study in fundamentals of musical composition emphasizing the development and expansion of music materials. May be taken as an elective. May be repeated as an elective by those not majoring in theory-composition. Prerequisites: MUS C 127 or equivalent and instructor's consent.

Upper-Division Courses

MUS C 310. Interrelated Arts (3). General education issues and perspectives course. Presents an aesthetic analysis of three fine arts: emphasis on style and commonality among the fine arts (art, music, drama).

MUS C 315. Music of the 20th Century (2). An aesthetic approach to music of this century: its major composers, and stylistic and formal characteristics. Primarily for the non-music major who has musical interest and background.

MUS C 335. History of Music II (3). A survey of the evolution of musical styles and practices in the Western world from ca. 1750 to the present. Includes lectures, reference readings, and the study of representative examples of music. Prerequisites: MUS C 113 and 228 or instructor's consent.

MUS C 345. Jazz Arranging (2). Arranging for small and large jazz ensembles emphasizing current big band styles. Prerequisites: MUS C 228 and 230 or instructor's consent.

MUS C 346. Styles of Jazz (3). General education further study course. A survey of all eras in the evolution of the many styles in the jazz idiom from the end of the 19th century to the present. Open to majors and non-majors.

MUS C 493. American Popular Music (3). General education further study course. Focuses on music of the popular culture in this country from colonial times into the 20th century and representing a melding of social, political, artistic, and historical elements of many diverse cultures.

Courses for Graduate/Undergraduate Credit

MUS C 523. Form and Analysis (2). Extensive analysis of the forms and formal processes of musical literature. Prerequisite: MUS C 228.

MUS C 531. Introduction to Electronic Music (2). Basic techniques of electronic music. Directed toward musicians who wish to use the electronic medium in teaching, performing, or communicating through music in any way.


MUS C 561. 18th Century Counterpoint (2). Contrapuntal devices of the 18th century as found in the works of J.S. Bach. Prerequisite: MUS C 222.

MUS C 616. Symphonic Literature (3). An advanced course in orchestral literature covering the development of the symphonic music from Baroque to the present day. Designed primarily for music majors who have already had MUS C 354 and 355.

MUS C 623. Opera Literature (3). A comprehensive survey of Italian, German, French, Russian, English, and American opera literature from the 17th century to the present. MUS C 113 is strongly recommended before taking the course. Should be only upper-division or graduate students. Not limited to music majors.

MUS C 624. Oratorio and Cantata Literature (2). A study of the solo vocal literature of the larger sacred and secular forms from the 17th century to the present. Not limited to music majors.

MUS C 641. Orchestration (2). The study of instrumentation, emphasizing orchestral scoring for various instrumental combinations with an approach to the problems of full orchestra and band scores. Prerequisite: MUS C 227.

MUS C 660. Applied Composition (2). Individual study in musical composition emphasizing writing for both small ensembles and large groups in the larger forms. Repeatable. Prerequisite: MUS C 560 and instructor's consent.

MUS C 661. 16th Century Counterpoint (2). Analysis and application of the contrapuntal composition techniques of the 16th century. Prerequisite: MUS C 228.

MUS C 671. Chromatic Harmony (2). Advanced study of chromatic harmonic materials of all periods with special attention to the 17th century. Emphasizes analysis and creative writing. Prerequisite: MUS C 228.

MUS C 672. Contemporary Techniques (2). Advanced study of music from impressionism to the present emphasizing related literature and creative writing. Prerequisite: MUS C 228.

MUS C 685. String Literature and Materials (2). A survey and stylistic analysis of music for solo strings and chamber combinations, beginning with the early Baroque period.

MUS C 726. Voice Literature (3). A comprehensive survey of early Italian arias, French chansons, German lied, contemporary English songs, and Russian and Spanish literature.

MUS C 753. Choral Literature I (2). A historical and stylistic survey of choral literature of the Renaissance and Baroque eras.

MUS C 754. Choral Literature II (2). A historical and stylistic survey of choral literature of the Classical, Romantic, and Contemporary eras.

MUS C 782-783. Piano Literature (3). Survey of the historical eras of professional piano repertoire.

MUS C 790. Special Topics in Music (1-4). For individual or group instruction. Repeatable with departmental consent.

MUS C 791. Seminar in Music History (3). Develops areas of interest in music history as time permits. Makes no effort at a chronological survey. Includes ideas evolving the most interest and considered by the instructor to be of the greatest professional benefit when interest warrants.

Please see the Graduate Catalog for courses numbered 801 and above.

School of Performing Arts
finearts.wichita.edu/performing
Steve Peters, Chair

The School of Performing Arts includes the areas of dance and theatre. The school offers the Bachelor of Fine Arts in Performing Arts/Dance and Bachelor of Fine Arts in Performing Arts/Theatre with tracks in Theatre Performance, Technical Theatre and Design, and Musical Theatre.

All candidates for the BFA degree must complete THEA 253, Costuming for the Stage; and THEA 345, Stage Lighting. Completion of 45 hours of upper-division courses is also required.
Dance (DANCE)

Major emphasis is placed on modern dance technique with strong supportive classes in ballet and jazz. Major course offerings include study in modern, ballet, and jazz techniques; tap; choreography; dance history; dance kinesiology; repertory; music for dance; lighting; and costume. Additional classes are offered in music theatre dance, mime, ballroom, country-western, and other special forms.

The Wichita Contemporary Dance Theatre, the resident faculty-student performance company, presents at least two fully produced concerts annually and acts to produce guest residencies with internationally recognized dance artists, lecture demonstrations for area schools, master classes, an annual undergraduate dance concert, informal showings, and senior choreography concerts. Membership is by audition only.

Any student who intends to pursue dance as a major should contact the director of dance early in their educational career for assignment to an academic advisor.

Graduation Requirements

Dance majors must complete two semesters of DANCE 101, Modern Dance I, and one semester of DANCE 410, Modern Dance II, with a minimum grade of C. A minimum of 42 hours is required in technique with at least 24 hours in modern dance technique. Proficiency exams are available for those with a developed technical skill. Students are encouraged to take concurrent ballet and modern dance technique classes each semester they are enrolled. Contact the director of dance for consideration of exception.

Advancement in technique is not automatic and is possible only with faculty consent and approval. Students will be placed at the technical level the dance faculty feel is appropriate for their individual growth and development. Students with a developed skill in one dance technique should not expect that ability to translate into the same level of skill in other techniques of dance.

All dance majors are required to perform in Wichita Contemporary Dance Theatre and/or dance program productions each semester. Junior and senior dance majors who are not accepted in Wichita Contemporary Dance Theatre are required to perform in an approved dance-sponsored performance. This requirement does not apply to senior dance majors during the semester in which they present their senior concert. Approval for dance majors to perform in off-campus productions, which may conflict with dance program or Wichita Contemporary Dance Theatre events, is made on a case-by-case basis. While we encourage students to work professionally as part of their training, we do not feel this should be done at the regular expense of student involvement in dance program/Wichita Contemporary Dance Theatre productions. Students accepted in Wichita Contemporary Dance Theatre may register for DANCE 320, Dance Performance, each semester.

All majors present a senior choreography concert to include choreography and performances determined in consultation with your major advisor and the director of dance. At least half of the concert must be choreographed by the student. The total length of the concert should be between 25 and 30 minutes. A written documentation of the choreography (including major artistic influences, compositional constructs used and approaches to choreography/performance) is supported by a creative notation of the project. These materials are submitted to the major advisor for approval. Following approval by the major advisor, students are scheduled for an oral defense of their work before the dance major faculty.

The dance faculty work with each student to create the best "fit" between student goals and interests in choreography/performance and faculty appraisal of each student's needs for true artistic development. We seek to produce graduates who will be competitive with graduates of any other outstanding BFA training program in the country.

Bachelor of Fine Arts

The general graduation requirements of the University must be met as described in the Academic Information—Requirements for Graduation section of the Catalog. In addition, the following course requirements must be met.

Course

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<tr>
<th>Course</th>
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<tbody>
<tr>
<td>DANCE 201, Modern Dance Technique I</td>
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<td>DANCE 301, 401, 501, Modern Dance II, III, IV (Placement and advancement by audition and/or faculty consent only)</td>
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<td>DANCE 130B, Tap I</td>
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<td>DANCE 315, Music for Dance</td>
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<td>DANCE 320, Dance Performance</td>
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<td>DANCE 415, Dance Kinesiology</td>
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<td>THEA 253, Costuming for the Stage</td>
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<tr>
<td>THEA 345, Stage Lighting</td>
<td>3</td>
</tr>
<tr>
<td>Total</td>
<td>78</td>
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</tbody>
</table>

In addition to the above required courses, a minimum of 6 hours should be selected from the following theatre, music, art, and dance courses with at least 3 hours in two disciplines.

THEA 143, The Art of the Theatre; 243, Acting I; 244, Stagecraft; 254, Stage Makeup 623, Development of the Theatre I; or 624, Development of the Theatre II.

MUS C 160, The Heritage of Western Music; 315, Music of the 20th Century; or 346, Styles of Jazz.

ART H 122, Survey of Western Art: Renaissance and Baroque; 124, Survey of Western Art: Modern; 525, 20th Century Art Before 1945; 526, Art Since 1945; or Art F 136, Foundation Design I.

DANCE 130I, Advanced Tap; 227 Mime/Physical Theatre I; 230, Musical Theatre Dance I; 330, Musical Theatre Dance II; 335, Jazz III; 545, Methods of Teaching Dance; 605, Choreography for the Musical Theatre; 645, Practice in Teaching Dance.

The remaining hours should be selected to fulfill General Education program requirements.

Dance Minor

A minor in dance consists of the following: 105, 120, 140, 201, 210, 225, 301, and 320.

Lower-Division Courses

DANCE 105. Choreography I (3). Focuses on the choreographic process. Students are required to do compositional studies which may include time, space, energy design, dynamics, rhythm, motivation, sequencing, phrasing, movement qualities, and transitions. Prerequisites: one semester of modern dance and equivalent to intermediate technical level. Co-requisite: appropriate-level modern dance or ballet technique class required.

DANCE 120. Jazz I (3). Introduces jazz technique, emphasizing work in body isolations, rhythmic patterns and directions, basic steps, and history and development of jazz dance in America. Repeatable for credit.

DANCE 130E. Tap I (3). Introduces the principles of tap dance including rhythm, clarity of sound, syncopation, and weight shift.

DANCE 130Q. Tap II (3). Continuation of DANCE 130B. An advanced intermediate-level course emphasizing appropriate technique of intermediate tap skills and the continued development of intricate rhythms, musicality, weight distribution, and variation of style. Prerequisites: DANCE 130B and/or instructor's consent.


DANCE 150. Dance Workshop (1-4). Repeatable for credit.

DANCE 201. Modern Dance Technique I (2-3). Introduces study of basic positions, body alignment, stretches, and strengthening exercises; emphasizes simple movement phrases to develop understanding of direction, rhythm, and dynamics. Repeatable for credit.
DANCE 205. Choreography II (3). Further work in improvisation and composition. Study of form in composition. Cultivates in a performance of solo works, duets, and small groups for an invited audience. Corequisite: DANCE 105. Prerequisite: instructor consent or instructor approval.

DANCE 210. Ballet I (2-3). Introduces basic technique, positions, basic steps, proper body alignment, classroom structure, and etiquette and ballet vocabulary. Repeatable for credit.

DANCE 220. Jazz II (3). Continuation of DANCE 120 at intermediate level. Repeatable for credit. Prerequisite: instructor’s consent or by audition.

DANCE 225. Survey of Dance History (3). General education further study course. Overview of dance history emphasizing the development of the Western tradition in social, cultural, and concert dance forms from ancient Greece to the present. Includes the origins of classical ballet, dance in America, the development of modern dance, and current trends in “world dance.”

DANCE 227. Mime/Physical Theatre I (3). An introductory course in non-verbal theatre to create conceptual statements, short plays, and abstract movement art. Students experience gesture, isolation, flexibility, strength, emotional expression, gesture, and activity. Fundamental mime theatre skills to see the range and possibilities of communicating non-verbally. Enhances both acting and dancing skills.

DANCE 230. Musical Theatre Dance I (3). Introduces various musical theatre dance styles from different historical periods including social dance styles from 1900s through 1980s. Includes the dance audition and how to prepare and market the dancer for the stage. Repeatable for credit. Prerequisites: DANCE 120 and/or instructor’s consent.

Upper-Division Courses

DANCE 301. Modern Dance II (2-3). Continuation of DANCE 201 emphasizing movement phrases. Intermediate level. Repeatable for credit. Prerequisite: instructor’s consent or by audition.

DANCE 310. Ballet II (2-3). Continuation of DANCE 210. Intermediate level. Repeatable for credit. Prerequisite: instructor’s consent or by audition.

DANCE 315. Music for Dance (3). General education further study course. Study of tempo, meter, and quality of sound as applied to movement, exploration of appropriate music repertoire for dance. Study of musical form and style periods and applications to performance and choreography.

DANCE 320. Dance Performance (1). Cross-listed as MUS P 211U, 411U, 711U. THEA 100E, 306E, 590E. Wichita Contemporary Dance Theatre, Senior and/or Choreography concerts, musical theatre, or outside performances approved by dance faculty. Prerequisite: audition. May be repeated for credit.

DANCE 330. Musical Theatre Dance II (3). Continuation of DANCE 230 and further refinement of musical theatre dance styles. Emphasizes knowledge of past and present renowned Broadway choreographers. Integrates original choreography into course work as well as performance methods. Repeatable for credit. Prerequisite: DANCE 230 and/or instructor’s consent.

DANCE 335. Jazz Dance III (3). Continuation of DANCE 225 at a higher level of technical skill. Includes advanced kinetic memory, flexibility, isolation, sophisticated synchronization, and reflex. Prerequisites: DANCE 120, 220, and/or instructor’s consent.

DANCE 401. Modern Dance III (3). Continuation of DANCE 301. Upper-intermediate level. Repeatable for credit. Prerequisite: instructor’s consent or by audition.

Courses for Graduate/Undergraduate Credit

DANCE 501. Modern Dance IV (3). Advanced level. Continuation of DANCE 401. Emphasizes professional technique and performance quality. Repeatable for credit. Prerequisite: instructor’s consent or by audition.

DANCE 505. Choreography III (3). Focuses on the choreographic process. Students create choreographic studies for more than one dancer utilizing elements studied in Choreography I and II and exploring different choreographic approaches. Further exploration may include environmental, chance, and collaborative choreographies and multimedia approaches. Prerequisites: DANCE 205 and concurrent enrollment in appropriate-level modern dance or ballet technique class.

DANCE 510. Ballet IV (3). Continuation of DANCE 410. Advanced level. Emphasizes professional technique and performance quality. Repeatable for credit. Prerequisite: instructor’s consent or by audition.

DANCE 545. Methods of Teaching Dance (3). Develops teaching skills for elementary schools, high schools, recreation centers, private and professional schools, and universities through lesson planning and in-class teaching practice. Prerequisite: DANCE 401 or 410.

DANCE 580. Senior Project (1). Focuses on the process of choreographing and producing a dance concert for the completion of the dance major. Under the supervision of a dance faculty mentor. A written paper and an oral review with the Dance faculty support the concert. May be taken concurrently with DANCE 595 with instructor’s consent. Prerequisites: Concurrent enrollment in appropriate level technique class and senior standing.

DANCE 605. Choreography for the Musical Theatre (3). Introduces the process of choreography for the musical theatre from casting the chorus in a musical to staging a solo or choreographing an ensemble of 10 dancers/singers. Includes interpreting the score and script for dance, staging musi­
dancers, and other projects to develop the craft of choreogra­phy for the musical stage. Prerequisites: DANCE 330 and/or instructor’s consent.

DANCE 610. Special Topics In Dance (1-4). For individual or group instruction. Repeatable for credit with department consent.

Theatre (THEA)

Theatre offers a broad academic program, balanced by the extensive production schedule of the University Theatre—Mainstage, Second Stage, Readers Theatre, and Summer Theatre, a semi-professional company whose members are chosen by audition only. The musical theatre program is a collaborative one in which students participate in musicals presented as part of the Theatre Series and the Opera and Musical Theatre Series, as well as in other performances in the atre, dance, and music.

Graduation Requirements

All theatre majors must participate in some area of the production of all University theatre plays, after consultation with faculty and staff. Students may choose one of four options: a BFA in performing arts/theatre performance, a BFA in performing arts/design and technical theatre, a BFA in performing arts/musical theatre and a BA in theatre. In addition to the general education requirements, candidates for the BFA in performing arts must meet the following requirements. Note: All students must earn 45+ hours of credit in upper-division courses.

Theatre Performance Track

A minimum of 80 hours, including THEA 143, 142, 211, 212, 222, 225, 230, 241, 243, 244, 253, 254, 272, 342, 345, 380, 453, 455, 456, 623, 624, 643, 651, 728; with 3 hours chosen from the following: THEA 215, 220, 230, 240, 245, and 6 hours chosen from the following: THEA 516, 517, 559, 590, 675, or 725.

Technical Theatre and Design Track

A minimum of 80 hours, including ART F 145, THEA 143, 180, 243, 244, 253, 254, 272, 344, 345, 359, 380, 455, 451, 544, 546, 623, 624, 647, 649, 653, 657, 728; with 3 hours chosen from the following: THEA 375 or 675 and with 5 hours chosen from theatre electives.

Musical Theatre Track

This track requires a minimum of 93 hours in three disciplines: 28 credits in theatre, 28 credits in music, 27 in dance, and 10 in interdisciplinary courses. Theatre courses include: THEA 243Q, 254, 342, 610, 643;
of the following: THEA 244, 253, 345; and any two of the following: THEA 222, 272, 375/675, 651. Dance courses include 120, 130R, 130Q, 201, 210, 220, 230, 310, 320. Music requirements include: MUS A 113P, 114P, 232Y, 432Y; MUS P 212F, 346; and MUS C 127Q, 128, 130. Interdisciplinary courses include: THEA 115, 330, 380, 355, 630. In addition, musical theatre majors will be expected to complete the 42 general education credits including THEA 260 as their Introduction to Fine Arts course and THEA 629Q or 629Q as Fine Arts Further Study course. The total needed for graduation is 135 credits.

Bachelor of Arts in Theatre
Minimum of 42 hours in theatre, including the following required classes: THEA 221, 242, 243, 259, 262, 272, 275, 276, 375, and 1 credit each of 180 and 380; 8 hours of THEA 244, 253, and 345; and 12 hours of electives chosen from the remaining courses in the theatre curriculum of which must be upper-division.

Theatre Minor
A minor in theatre consists of the following required classes: THEA 243, 244, 272, 359, 253, or 345 and 3 hours from the following: THEA 450, 623, or 624.

Lower-Division Courses
THEA 115. The Art of the Theatre (3). General education introductory course. An introduction to theatre as an art form emphasizing critical appreciation from the viewpoint of the audience.

THEA 165. Stage Combat (1). Teaches the techniques of safe armed combat on the stage, including the safe execution of rolls, pushes, kicks, and the knap.

THEA 180. Theatre Practicum (1). Practical training in the organization and presentation of plays in the University Theatre program. May be organized in the following areas: design and construction of scenery, costumes, or properties; the design and execution of stage lighting or makeup; the organization and practice of theatre management; and performance. May be repeated for credit.

THEA 180E. Musical Theatre Performance (1). Cross-listed with Dance 320 and MUS P 211H. An interdisciplinary musical class for students cast in a musical theatre production. Admission is by audition. Gain rehearsal and performance experience in a Mainstage production with orchestra. Thespians are in the evenings for 6-10 weeks. Repeatable for credit.

THEA 208. Experience the Performing Arts (3). General education introductory course. Engages the student with vital experiences as audience members in the performing arts. Through live performance, talk-backs with artists, and critical evaluations, students gain valuable first-hand knowledge of the various genres of performance. In addition to WSU’s theatre, dance, and musical theatre productions, students gain historical perspectives during discussions and lectures from artists working in the field.

THEA 218. Stage Movement (3). Deals with basic warm-ups, strengthening and stamina exercises, and corrective-maintenance exercises to aid in the development of an expressive body for the actor.

THEA 221. Oral Interpretation (3). General education further study course. Cross-listed as COMM 221. The development of the mental, vocal, and analytical techniques essential to the oral interpretation of literature.

THEA 222. Improving Voice and Diction (3). Cross-listed as COMM 222. For students wishing to improve their speaking voices and gain greater control over their pronunciation of spoken English. Performance oriented, however, the anatomy of the vocal mechanism and the International Phonetic Alphabet are studied for practical application in the improvement of voice and diction.

THEA 241. Improvisation and Theatre Games (3). General education further study course. For the beginning student in theatre. Through exercises, analyses, and readings, the course contributes to the training of the student actor’s imagination, better sense of stage presence, and ability to explore basic components of playscript.

THEA 243. Acting I (3). General education further study course. Emphasizes the internal techniques of acting, characterization, and the actor’s analysis of the play and the role.

THEA 244. Stagecraft (4). R; Lab art. Theory and practice of making, painting, and using scenery for the stage. Practical work on University Theatre Mainstage and Second Stage productions. Includes a two-hour lab.

THEA 253. Costuming for the Stage (4). R; Lab. art. Introduces principles of costume design and construction. Teaches on all aspects of the design process from conception of ideas to final product on stage. Includes approaches to rendering the costume design, basic pattern-making, fabric selection, and dying. Practical experience with University Theatre Mainstage and Second Stage productions. Includes a two-hour lab.

THEA 254. Stage Makeup (2). Study and practice of the basic application of stage makeup. Also includes character analysis, anatomy, materials, and special makeup techniques and problems.

THEA 260. History of Musical Theatre (3). General education introductory course. A survey of the development of musical theatre in America from the late 1880s to the present day. Explores the collaboration of composers, directors, choreographers, and performers that make this a uniquely American art form.

THEA 272. Stage and Theatre Management (3). Acquaints students with the fundamentals of stage and theatre management. Students study all technical aspects of production (budgets, schedules, properties, etc.). In addition to classroom projects, students are required to work as a stage manager or an assistant stage manager for a theatre production. Prerequisite: sophomore standing.

Upper-Division Courses
THEA 300. Drafting for the Theatre (3). The fundamentals of drafting for the theatre. Includes drafting equipment, geometry, lettering, symbols, drawings (orthographic, isometric, oblique, sectional) and standard drawings used in theatre floor plans, sections, elevations, working drawings, perspective. Prerequisite: THEA 244 and ART P 149.

THEA 320. Musical Theatre Analysis (2). Enables the musical theatre major to analyze both script and score in a variety of musical theatre styles to enhance performance skills. Deals with dramatic structure in the musical, different musical styles, and performance practices and how to apply this awareness into characterization.

THEA 326. Expressive Voice for Stage (3). Develops the individual’s ability to express thought and emotion on the stage through the effective use of the voice. Uses exercises, drills, and poetic and dramatic readings to improve the quality, flexibility and effectiveness of the speaking voice. Prerequisite: THEA/COMM 222.

THEA 330. Musical Theatre Laboratory (2). An interdisciplinary course with opportunities for student performers to refine techniques by performing scenes from a variety of musical genres, including opera, book musicals and rock musicals. Advanced students gain experience in directing and choreographing under faculty guidance and supervision. Jr. or Sr. Musical Theatre Dance, and Voice majors only, and/or permission of the instructors.

THEA 331. Dialects for the Stage (3). Familiarizes the student with certain regional American and foreign dialects. Intended to be a practical guide for the student actor who is called upon to reproduce a particular dialect for performance. Prerequisite: THEA/COMM 222.

THEA 342. Advanced Acting (3). Continued development of methods established in THEA 243 with additional emphasis on contemporary vocal and movement techniques. Prerequisites: THEA 243 and sophomore standing.

THEA 344. Scene Design (3). Fundamentals of scene design. Emphasizes strong work in perspective rendering, drafting techniques and scale, and playwriting and spatial analysis.

THEA 345. Stage Lighting (4). Lab. art. Light design and its relation to the production process and other design elements. Emphasizes working knowledge of lighting equipment towards creative implementation. Includes practical work on University Theatre Mainstage and Second Stage productions.
THEA 359. Directing I (3). R; L art. Basic theories and principles of stage directing and problems of producing the play with practical experience gained by use of the project methods. Prerequisite: THEA 243, 244, 272 or departmental consent.

THEA 375. Directed Projects in Theatre (2-4). Independent research or practical and creative projects in the various areas of theatre including performance, design, technical theatre, management, and dramatic literature. Repeatable for credit to a maximum of 4 hours. Prerequisite: departmental consent.

THEA 380. Theatre Practicum (1). Practical training in the organization and presentation of plays in the University Theatre program. May be organized in the following areas: design and construction of scenery, costumes, or properties; the design and execution of stage lighting or makeup; the organization and practice of theatre management; and performance. May be repeated once for credit.

THEA 380E. Musical Theatre Performance (1). Cross-listed as DANCE 220 and MUS P 411U. See THEA 180E.

THEA 385. Theatre as a Mirror of Today's America (3). General education issues and perspectives course. Explores how contemporary drama reflects the issues and perspectives of different cultures and groups within America, including African Americans, Asian Americans, Hispanic Americans, feminists, gays, and lesbians. Examines how today's theatre portrays these groups, how it views their lives in this country and how it reflects their differences, fears and concerns, and similarities. Focuses on issues arising because of diversity of culture, nationalities, race, gender, ethnicity, class, age, religion, and politics.

THEA 450. Contemporary Theatre and Drama: Topics (3). General education further study course. Investigates the major developments and directions in theatre and drama since WW II. Includes studies in directing, acting, theatre architecture, design, and production methods, as well as dramatic literature. Prerequisite: junior standing (60 hours) or above.

THEA 451. Portfolio Review (1). Senior level. Helps the technical theatre and design student prepare a formal portfolio in one or a combination of the design areas, a resume, and a presentation as an application suitable for either graduate school or future employment. Prerequisite: must be taken in graduating year.

THEA 455. Senior Project (1). For the graduating student in the performance track of the BFA in Performing Arts/ Theatre program. Requires a performance of material in various circumstances. Prerequisite: senior standing.

THEA 480. Theatre Internship (3-15). Advanced theatre production work as arranged by students in direction, acting, scenery and lighting, costume design and construction, or theatre management with a professional theatre company. Prerequisite: senior standing or departmental consent. Graduate students must take THEA 780. Maximum of 15 credits of internship activity applicable toward graduation.

Courses for Graduate/Undergraduate Credit

THEA 510. Design Project (1). Advanced work in the problems of stage lighting design, costume design, or scenic design. With the permission and supervision of the appropriate faculty member, the student designs for specific productions for either Mainstage or Experimental Theatre. Repeatable twice for credit if taken in different design areas. Prerequisite: instructor's consent.

THEA 516 & THEA 517. Playwriting I and II (3 & 3). General education further study course. Cross-listed as ENGL 517 and 518. The writing of scripts for performance. Emphasizes both verbal and visual aspects of playwriting. If possible, the scripts are given in class readings by actors. Prerequisite: instructor's consent.

THEA 530. Musical Theatre Scene Study (2). An interdisciplinary practicum course with opportunities for student performers to refine interdisciplinary techniques by performing scenes from a variety of musical theatre genres, including operetta, book musicals and rock musicals. Advanced students may explore opportunities to gain experience in directing and choreographing under faculty guidance and supervision. Jr. or Sr. Musical Theatre, Dance or Voice majors only; and/or permission of the instructors.

THEA 544. Advanced Stagework (3). R; L art. Explores advanced construction techniques for the fabrication of stage scenery and stage properties. Such operations may include welding, vacuum forming, carpentry, and working with a variety of new materials. Students complete a research project and present a demonstration of research findings. Individual projects relating to materials and techniques studied are pursued in assigned labs. Prerequisite: THEA 244.

THEA 546. Scene Painting (3). Presented with a lecture demonstration-studio arrangement. Explores various theatre painting materials and techniques enabling the student to develop skill as a scenic artist. Prerequisite: THEA 244.

THEA 555. Senior Project (1). Cross-listed as MUS P 555. An interdisciplinary course to showcase the talents of graduating seniors to professional producers, agents, and casting directors. The students produce and develop a variety of their talents in singing, dancing, acting, directing, and choreography. For majors only. Prerequisite: instructor's consent.

THEA 559. Directing II (3). R; L art. Staging and rehearsal techniques emphasizing the problems of the period and stylized plays. Prerequisites: THEA 359 or departmental consent and junior standing.

THEA 590. Theatre Special Topics (2-3). Designed to expand and strengthen the experience of the student academically and professionally. Study of developments in theatre that go beyond, or are related to, courses already offered give students a much richer preparation for their field of study. Topics include new technology, new materials, contemporary explorations in performance, and in-depth study of production methods.

THEA 590E. Musical Theatre Performance (1). Cross-listed as DANCE 230 and MUS P 711U. See THEA 180E.

THEA 610. Directing the Musical (3). An interdisciplinary course utilizing interdepartmental expertise (theatre, dance, music) to teach the student how to produce a musical. Prerequisite: instructor's consent.

THEA 622. Academic Theatre Practicum (2). The investigation and exploration of the theatrical act in the classroom situation within the University community. Reinforces researching, writing, directing, and performing skills. Enrolled students, functioning as a company, produce and perform for various disciplines on campus. Repeatable once for credit.

THEA 623. Development of the Theatre I (3). General education further study course. The history of theatrical activity as a social institution and an art form from its beginnings to the 17th century. Includes representative plays, methods of staging, and theatrical architecture of various periods.

THEA 624. Development of the Theatre II (3). General education further study course. History of theatrical activity as a social institution and an art form from the 17th century to the present. Includes representative plays, methods of staging, and theatrical architecture of various periods.

THEA 630. Musical Theatre & Opera Audition (3). Cross-listed as MUS P 790E. A practicum course which develops techniques and audition repertoire skills will need to gain professional employment and/or successfully compete for placement in advanced training programs. Also covers business skills necessary to a professional career, and helps students into contact with professional guest artists who can provide additional insight and contacts. Prerequisite: instructor's consent.

THEA 643. Styles in Acting (3). Training in, and development of, the special techniques required for period or stylized plays with special emphasis on Greek, Shakespearean, and Restoration styles. Prerequisites: THEA 243, 342, and junior standing.

THEA 647. Scene Design II (3). Continuation of THEA 347 with more advanced work in designing settings for the stage and including studies in scenicographic and exercises in model building. Student designs settings for production having a single set, a production requiring a simultaneous setting, and a production using multiple settings. Requires no laboratory work in theatre production. Prerequisites: THEA 244 and 344.

THEA 649. Stage Lighting II and Theatre Sound (3). Continues the study and application of the theories and techniques of THEA 345, emphasizing advanced concepts of design, and provides an introduction to theatre sound production. Prerequisite: THEA 345.

THEA 651. Scene Study (3). The synthesis of all previous acting courses. Studies scenes in depth as preparation for performance. Course goal is the presentation of fully realized characterizations in those scenes studied, integrating the...
ment of the actor’s craft learned in the prerequisite courses.
Prerequisites: THEA 643 and junior standing.

THEA 653. History of Costume (3). R; L. Art. Historical survey and individual research of dress from ancient Egypt to present day emphasizing social, political, economic, and religious influence. Theory and practice of adapting period styles to the stage. Prerequisite: THEA 253 or departmental consent.

THEA 657. Costume Design I (3). Covers the techniques of costume design for the stage. Students strengthen and expand their knowledge of techniques in costume design for the stage, film, and television. Prerequisites: ART 143, THEA 253.

THEA 675. Directed Study (2-4). Cross-listed as COMM 675. Individual study or projects. Repeatable for credit with departmental consent. Prerequisite: departmental consent.

THEA 725. Dramatic Theory (3). Critical examination of selected aesthetic theories of the theatrical arts and the relationship of the theories to major dramatic works and theatrical periods. Prerequisite: THEA 623, 624 or departmental consent.

THEA 728. Playscript Analysis (3). Develops students’ abilities to analyze play-scripts from the point of view of those who face the task of staging them. Focuses on studying and testing practical methods of analysis developed by outstanding theatre directors, teachers, and critics. Collective analysis and individual projects are part of the course work. Prerequisite: THEA 623 or 624.

THEA 780. Theatre Internship (0-15). Advanced theatre production work as arranged by students in directing, acting, scenery, and lighting: costume design and construction; or theatre management with a professional theatre company. Work is evaluated by graduate faculty. Prerequisite: junior standing or departmental consent. Total of internship activity applicable toward graduation is 15 credits.

Please see the Graduate Catalog for courses numbered 800 and above.

The following abbreviations are used in the course descriptions. R stands for lecture and L for laboratory. For example, 4R: 2L means 4 hours of lecture and 2 hours of lab.
Students must possess aptitude, ability, and skills in five areas: observation; communication; sensory and motor coordination and function; conceptualization, integration, and quantification; and behavioral and social skills, ability, and aptitude. The essential functions/technical standards described by a student’s chosen discipline are critically important to the student and must be autonomously performed by the student. It should be understood that these are essential function/technical standards for minimum competence in a student’s discipline. Contact specific programs for detailed essential functions/technical standards. Reasonable accommodation of disability will be provided after the student notifies the department of the disability, and the disability has been documented by appropriate professionals.

Degrees Offered

Undergraduate

Of the programs offered at the undergraduate level, five lead to bachelor’s degrees—dental hygiene, health services management and community development, medical technology, nursing, and physician assistant.

In addition, the Associate of Science is awarded in dental hygiene. Students in the Emergency Medical Training (EMT) program receive a certificate of completion. The Associate of Applied Science for Mobile Intensive Care Technicians (MICT) or paramedics is currently suspended.

Graduate

Four programs lead to the master’s degree—public health, nursing, physical therapy, and physician assistant. Admission to all of these programs requires a bachelor’s degree and the fulfillment of additional requirements.

The Master of Public Health (MPH) program prepares its graduates to undertake leadership positions across the health care system. This 39-credit-hour degree program is appropriate for individuals interested in acquiring the multi-dimensional and multi-disciplinary knowledge and skill base necessary to: 1) build and strengthen the organizations and agencies that deliver health care and public health services to our nation’s communities and 2) partner effectively with community residents and representatives to develop healthy communities and enhance well-being at the population level. A graduate certificate in public health is available for individuals whose primary goal is public health training.

A Master of Science in Nursing (MSN) program, designed to meet the needs and professional goals of the student, is offered for part- or full-time study. Specializations offered are clinical nurse specialist in adult health and illness, and pediatrics/nurse practitioner in acute care, family, pediatric, and psychiatric/mental health nursing; nurse midwifery; and the MSN in nursing and health care systems administration or a dual degree, MSN and Master of Business Administration. Role development in education, informatics, and administration is available. Post-master’s (graduate) certificates are also offered.

An entry-level master’s program (MPT) is offered in physical therapy. The program prepares graduates to enter the clinical practice of physical therapy, where the focus is on clinical skills, education, research, and administration. Graduates are prepared to specifically evaluate and treat neuromuscular, musculoskeletal, cardiopulmonary, and sensorimotor functions.

An entry-level master’s program (MPA) is offered in physician assistant. The program prepares graduates to practice medicine with physician supervision in inpatient and outpatient settings and all medical and surgical specialties. Graduates are eligible to sit for the national certifying examination which is necessary to pass for PA practice.

More information on graduate programs is available in the WSU Graduate Catalog.

Policies

Undergraduate Admission

Degree-bound students who select a health professions major are admitted to the College of Health Professions as pre-professionals in one of the degree programs offered, or as a pre-professionals undecided. However, admission to the College as a pre-professionals major does not guarantee acceptance into any of the undergraduate professional programs. To be admitted to a professional program, a student must be admitted to Wichita State University and the College of Health Professions, apply for admission to a particular program, and be accepted by the admissions committee of that program. See individual program information for application procedures.

NOTE: Admission requirements for each of the health professions programs include a grade point average that must be achieved before the student can apply for admission to the program. For the baccalaureate in nursing, medical technology, and dental hygiene, the required GPA is 2.500, and for the baccalaureate in health service management and community development it is 2.250. For students planning to enter the graduate programs in nursing, physical therapy, or physician assistant. The minimum GPA for admission is 3.000. For Public Health it is GPA combined with GRE scores.

Required grade point average for College of Health Professions undergraduate pre-majors: Pre-professionals majors in Health Services Management and Community Development must maintain an overall cumulative and WSU grade point average of at least 2.500. Pre-professionals majors in Medical Technology, Nursing, and Dental Hygiene must maintain an overall cumulative and WSU grade point average of at least 2.250. All undecided health professions majors must maintain at least an overall cumulative and WSU grade point average of 2.250. In addition, all students
must complete the required General Education basic
d skills courses appropriate to their intended degree
(associate or Baccalaureate) within their first 46 credit
hours of course work at WSU, each with a grade of
C or better.

Transfer students who are undecided or who want a pre-
major of Health Services Management and Community
Development must present an earned GPA of 2.250
or higher on a 4.000 scale for prior college work.
Those wanting a pre-major of Medical Technology,
Nursing, or Dental Hygiene must present an earned
GPA of 2.500 or higher, also on a 4.000 scale, for
prior college work.

Progression
Progression as an undecided health profession pre-
major or as a pre-major in Health Services Management
and Community Development requires that the student
maintain an overall cumulative and WSU GPA of
2.250 or higher. Progression as a pre-professional
major in Medical Technology, Nursing, or Dental
Hygiene requires that the student maintain an
overall cumulative and WSU GPA of 2.500 or higher.
Students who do not meet these requirements will be
placed on academic probation at the end of a semester
in which they fail to meet these requirements.

Once the student is accepted into one of the profes-
sional programs, progression in courses offered in
the program requires students to earn a grade of S, Cr,
or C or better in program courses required for the major
and any other courses so designated by the program.
In courses which combine theory and clinical practice
students must receive an S, Cr, or C or better in both
segments of the course in order to pass the course.
Students who fail to meet these requirements may be
dismissed from the program. If the student’s overall
grade point average remains at or above the GPA
required for admission to the program, the student
may petition the Committee on Academic Exceptions
in his/her program to remain in the program. Students
should check the individual program section of the
Undergraduate Catalog for additional Program
Requirements.

Probation and Dismissal
Pre-professional majors are placed on probation for
the next term in which they enroll if their overall
cumulative or WSU grade point average falls below
2.250 for pre-majors who are undecided health profes-
sions or Health Services Management and Communi-
ty Development, or for pre-majors in Medical Tech-
ology, Nursing, or Dental Hygiene below an overall
cumulative or WSU grade point average of at least
2.500.

Students will remain on probation even though
they earn the required grade point average or higher,
in the term during which they are on probation if their
overall cumulative or WSU grade point average is not
at the required level. Probation is removed when a
student’s cumulative and WSU grade point average
meets the required academic level.

Pre-professional students on probation may not
enroll for more than 12 semester hours in a 16-week
semester, or 5 semester hours in a summer semester,
excluding 1 hour of physical education. Exception to
this limitation may be made on the recommendation
of a student’s advisor with the approval of the dean of
the college.

Pre-professional students will not be dismissed
from the college until they accumulate 12 or more
attempts hours after being placed on probation if
they do not achieve these academic requirements.

Students admitted to and enrolled in a College
of Health Professions professional program are subject
to probation and dismissal policy and procedures
determined by each professional program. These are
described in student handbooks available in each
department. Additionally, students assigned to affili-
ating health facilities for clinical education will be sub-
ject to dismissal from their professional program for
failure to comply with the rules, regulations, or pro-
essional standards governing that facility.

Exceptions
Students may petition the program, college, or Uni-
versity for exception to any requirement. Students are
required to discuss all petitions with their college/pro-
gram advisor prior to submission of the petition. Peti-
tions may or may not be approved by the body to
whom the petition is made.

Graduation Requirements
All health professions students who are pursuing
bachelor’s degrees must meet general University
requirements and fulfill the course requirements spec-
ified in the curriculum of the department offering the
degrees.

A minimum of 30 credit hours in course work in res-
idence at WSU is required for all students seeking
bachelor’s degrees at WSU. In addition, these students
must also complete all University, college, and depart-
mental requirements for the degrees being sought
including a minimum of 45 hours of upper division
courses. Completion of University courses is counted
forward toward fulfillment of the residency requirement.
For specific requirements, consult the individual program
sections of the Catalog.

Credit by Examination
Some of the programs in the College of Health Profes-
sions offer equivalency or competency examinations.
By taking these exams, students may earn credit or
receive advanced placement. To qualify for such
exams, students must:
1. Be accepted into the program (major) in which the
course is offered as part of the professional curriculum.
2. Meet any other eligibility requirements stated by
the particular program. (See the appropriate pro-
gram’s section in the Catalog.)

Exception to these requirements may be granted to
non-majors by the chairperson/director of the pro-
m and Computer Development requires that the
student maintain an overall cumulative and WSU GPA of
2.250 or higher, also on a 4.000 scale, for "11
major or as a pre-major in Health Services
Management and Community

Students who do not meet the "E' requirements will be
probation and Dismissal

"E' requirements.

Deans Office or a College of Health Professions

COLLEGE OF HEALTH PROFESSIONS 109

Special Certificate Programs
The College of Health Professions offers a certificate
program in basic emergency care training. A graduate
certificate in public health is also offered.

Students should check with their program advisors
regarding eligibility and prerequisite requirements for
this type of examination. Transcripts will identify
the courses and credits received by students taking equival-
ency/competency examinations. Fees are assessed,
in advance, for the administration of the examina-

Cooperative Education
The College of Health Professions is one of the partic-
icipating colleges in the University’s Cooperative
Education program. This program is designed to provide
off-campus paid employment experiences that inte-
grate, complement, and enhance the student’s regular
academic program while providing academic credit.
Students are placed for field study experiences in a
variety of health settings, including hospitals and
community agencies. Individualized field studies are
formulated in consultation with the student and the
employer and are approved by the program faculty
advisors and the cooperative education coordinator
for the college. Participation in the program requires
enrollment for credit in specific cooperative education
courses designated by the various academic programs
in the college; these undergraduate courses may have
prerequisites or other specific requirements for enroll-
ment. To enroll in the program or for more informa-
tion, students should contact the cooperative educa-
tion office or a College of Health Professions advisor.

Clinical Affiliation
The college, because of its location in Wichita, has
affiliation agreements with various excellent health
facilities which assist in the clinical education of stu-
dents. The clinical affiliations include a wide variety
of hospitals, long-term care facilities, public schools, pri-
ate practitioners, and community agencies.

Liability Insurance Requirements,
Health Insurance, and Health Standards
Most students are required to purchase professional
liability insurance (the specific level is determined by
the professional program) as well as personal health
insurance at the beginning of the professional phase of
a College of Health Professions program. Additionally,
other health standards are required prior to entry
into the clinical agencies. Students should communi-
cate with individual programs about specific require-
ments.

Financial Assistance
Scholarships and student loan funds are available for
students in health professions. Information on these
and other scholarships and loans is available from the
WSU Office of Financial Aid and the program from
which the student is seeking a degree or certificate.

Special Certificate Programs
The College of Health Professions offers a certificate
program in basic emergency care training. A graduate
certificate in public health is also offered.
Degree Requirements and Course Listings

School of Health Sciences

The School of Health Sciences offers programs leading to the Bachelor of Science in Dental Hygiene, the Bachelor of Science in Health Services Management and Community Development, the Bachelor of Science-Medical Technology, and the Bachelor of Science-Physician Assistant.

In addition, the Associate of Science is awarded in Medical Technology, and the Bachelor of Science with a major in one of the following fields.

Lower-Division Courses

HP 150. Workshop in Health Professions (1-10). Intensive study of special topics related to health professions practice, education, and research.

HP 151. Career Networking Experience (1). Offers students the opportunity to participate in a mentoring relationship with a WSU health professions alumni. Students experience what it's like working in a career they are considering, interact with professionals in their chosen career, and become part of the professional culture of the workplace. Seminars taught by WSU faculty/staff provide in-depth information regarding stress management, corporate communication, job search skills, and networking. Graded CR/NC. Prerequisite: instructor's consent, at least 12 credit hours completed, and 2.500 GPA.

HP 201. Exploring the Health Professions (2). Introduces the health care field with an overview of today's health care system. Explores the attributes needed to be a health professional, the coping mechanisms needed, what it means to be a student in the professional programs, and health care challenges from both a patient's and provider's point of view. Introduces various health professions and allows students to explore a field of their choosing. Co-requisite: HP 151.

HP 203. Medical Terminology (2). Provides the foundation of medical terminology for individuals who need a familiarity of the medical language. Ideal for preprofessional students preparing for one of the health professions or students currently enrolled in a health professions program. Also valuable for individuals such as medical records technicians, medical transcriptionists, medical secretaries, medical insurance personnel, administrators in health care, and pharmaceutical representatives.

Upper-Division Courses

HP 303. Medical Terminology (3). Provides the foundation of medical terminology and its application to the health care disciplines. Ideal for preprofessional students preparing for one of the health professions or a student currently in a health professions program. Emphasizes accurate interpretations and analysis of patient, hospital, and other medical records. Students cannot receive credit for both HP 203 and HP 303.

HP 325. Selected Topics (1-4). Lecture/discussion; focuses on a discrete area content relevant to the health disciplines. In-depth study of a particular topic or concept, including didactic and current research findings and technological advances relevant to the topic. Repeatable to a maximum of 6 credit hours with program consent, upper-division status.


Courses for Graduate/Undergraduate Credit

HP 570. Selected Topics (1-4). Lecture/discussion; focuses on a discrete area content relevant to the health disciplines. In-depth study of a particular topic or concept, including didactic and current research findings and technological advances relevant to the topic. Repeatable to a maximum of 6 credit hours with program consent, upper-division status.

HP 750. Workshop in Health Professions (1-4). An opportunity for intensive study of special topics related to health profession practice, education, or research.

Basic Health Sciences (HS)

Upper-Division Courses

HS 301. Clinical Pharmacology (3). Surveys therapeutic terms, drug actions, dosage, toxicology and application of drugs in the clinical setting. Prerequisites: BIOL 223 or equivalent and CHEM 103 or 111 or equivalent or instructor's consent.

HS 315. Head and Neck Anatomy (2). An in-depth study of the landmarks, muscles, nerves, and vascular supply of the head and neck region. Prerequisites: BIOL 223 and enrollment in Dental Hygiene Program.

HS 331. Principles of Dietetics and Nutrition (3). A study of human dietetic and nutritional needs in the clinical setting. Covers composition and classification of foods, vitamins, and their function; food and public health laws; and nutrition under special conditions. Gives a detailed application of dietetic and nutritional knowledge applied to various clinical conditions.

HS 400. Introduction to Pathophysiology (4). Focuses on the essential mechanisms of disordered function which produce common diseases. Discusses some common diseases, but as examples of the basic processes covered, not as part of an exhaustive inventory. Presents the health professional with accessible, usable, and practical information they can broadly and quickly apply in their clinical or laboratory experience, or use as a basic pathophysiology course before taking the more specific professionally related pathophysiology courses.

Courses for Graduate/Undergraduate Credit

HS 503. Anatomy of the Body Cavities (3). The gross anatomy of the human body cavities presented in a four-week summer term using a regional approach. Teams of eight students dissect the thoracic, abdominal, and pelvic cavities on human cadavers, emphasizing cardiovascular, respiratory, gastrointestinal, and urogenital systems. Prerequisite: BIOL 203 or 223.

HS 631. Normal and Clinical Nutrition (4). Studies human nutritional needs in normal development and the life cycles. Covers composition, classification and function of foods and nutrients, food handling and public health safety and laws, and nutrition in special situations. Includes a study of principles of nutritional support and diet as therapy. Addresses the dietary concerns of a variety of clinical disorders, including gastrointestinal disorders, diabetes mellitus, cancer, burns, liver disease, obesity and weight loss, eating disorders, HIV infections, kidney and cardiovascular disease, prenatal and enteral nutrition, and surgical conditions. Studies nutritional assessment, data interpretation, care planning, record keeping, and client communications. Prerequisites: general chemistry, anatomy, and physiology.

HS 700. Gross Anatomy Lab 69, 38, 91. For students in the physical therapy program. Study of the structure of the human body emphasizing integration of anatomical information with human functional abilities. Prerequisites: four semesters of biological sciences or program consent.

HS 710. Applied Clinical Pharmacology (3). Discusses clinical applications of selected drug classes commonly prescribed in the primary care setting as well as the follow-up management of common chronic diseases. Discusses pharmacological management as to pharmacokinetics, dosage, mechanisms of action (at molecular and systemic levels), side effects, drug interactions, contraindications, therapeutic use, and expected outcomes. Emphasizes the practical application of this knowledge in various patient populations of all ages as well as rational drug selection and monitoring. Methodology includes lecture presentations, group discussions, clinical case studies, assessment of recent literature, homework assignments, quizzes, and exams. Prerequisite:
**Chemistry (CHEM)**: Important parameter in microscopic, mononuclear acute inflammation, minimum oral health for all people, Dr. completion associate of arts, professional program, or instructor's consent.

### Course

**Prerequisite courses for admission to the dental hygiene program:**

<table>
<thead>
<tr>
<th>Course</th>
<th>Hrs</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOI 223  Human Anatomy and Physiology</td>
<td>5</td>
</tr>
<tr>
<td>CHEM 103  General Chemistry</td>
<td>5</td>
</tr>
<tr>
<td>ENGL 101  College English I</td>
<td>3</td>
</tr>
<tr>
<td>PSY 111   General Psychology</td>
<td>3</td>
</tr>
<tr>
<td>BIOL 220  Introduction to Microbiology</td>
<td>4</td>
</tr>
<tr>
<td>HS 331    Principles of Dietetics and Nutrition</td>
<td>3</td>
</tr>
</tbody>
</table>

### Curriculum

The following courses, totaling 81 hours, must be taken by dental hygiene students.

**Course**

<table>
<thead>
<tr>
<th>Course</th>
<th>Hrs</th>
</tr>
</thead>
<tbody>
<tr>
<td>DH 104  Clinical Radiology</td>
<td>5</td>
</tr>
<tr>
<td>DH 201  Dental Hygiene Concepts</td>
<td>3</td>
</tr>
<tr>
<td>DH 202  Clinical Dental Hygiene I</td>
<td>3</td>
</tr>
<tr>
<td>DH 206  General and Oral Pathology</td>
<td>3</td>
</tr>
<tr>
<td>DH 250  Oral Anatomy</td>
<td>1</td>
</tr>
<tr>
<td>DH 295  Oral Histology and Embryology</td>
<td>2</td>
</tr>
<tr>
<td>DH 301  Dental Materials</td>
<td>2</td>
</tr>
<tr>
<td>DH 302  Clinical Dental Hygiene II</td>
<td>2</td>
</tr>
<tr>
<td>DH 303  Dental Hygiene Concepts II</td>
<td>2</td>
</tr>
<tr>
<td>DH 304  Dental Hygiene Concepts III</td>
<td>2</td>
</tr>
<tr>
<td>DH 307  Ethics and Jurisprudence</td>
<td>2</td>
</tr>
<tr>
<td>DH 310  Community Dental Hygiene</td>
<td>3</td>
</tr>
<tr>
<td>DH 314  Introduction to Periodontics</td>
<td>2</td>
</tr>
<tr>
<td>DH 316  Pain Management</td>
<td>2</td>
</tr>
<tr>
<td>DH 323  Clinical Dental Hygiene III</td>
<td>3</td>
</tr>
<tr>
<td>DH 324  Clinical Dental Hygiene IV</td>
<td>4</td>
</tr>
<tr>
<td>DH 409  Introduction to Research for the Health Professions</td>
<td>1</td>
</tr>
<tr>
<td>HS 301  Clinical Pharmacology</td>
<td>3</td>
</tr>
<tr>
<td>HS 315  Head and Neck Anatomy</td>
<td>2</td>
</tr>
</tbody>
</table>

**Special Requirements**

Students are required to purchase uniforms and instruments needed during clinical learning experiences. Students also are required to purchase professional liability insurance and personal health insurance on an annual basis. In addition, students are required to provide their own transportation and to contact the health care agencies used for clinical experiences.

Information related to special requirements is available to students in the office of the Dental Hygienist Department, Wichita State University, Wichita, Kansas 67260-0144.

**Bachelor of Science**

Available to registered dental hygienists who seek to expand their role into such areas as community dental hygiene and education. Students interested in more information should contact the college dean's office student advisor.

Registered dental hygienists must:

1. Submit verification of current license to practice as a dental hygienist.
2. Submit official transcripts of college courses and records verifying completion of an accredited dental hygiene program.

Transcript evaluation will determine the exact general education and dental hygiene associate degree requirements to be completed.

**Course**

<table>
<thead>
<tr>
<th>Course</th>
<th>Hrs</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGL 102  College English II</td>
<td>3</td>
</tr>
<tr>
<td>Math 111  College Algebra</td>
<td>3</td>
</tr>
<tr>
<td>Electives from the following categories:</td>
<td></td>
</tr>
<tr>
<td>Introductions to Fine Art (3)</td>
<td>3</td>
</tr>
<tr>
<td>Cultural Anthropology (3)</td>
<td>3</td>
</tr>
<tr>
<td>Further Study or Issues and Perspectives in Fine Arts or Humanities (1)</td>
<td>3</td>
</tr>
<tr>
<td>Further Study or Issues and Perspectives in Social or Behavioral Science (1)</td>
<td>3</td>
</tr>
<tr>
<td>Introductory Natural Science and Math (1)</td>
<td>5</td>
</tr>
<tr>
<td>Further Study or Issues and Perspectives in Natural Science and Math (1)</td>
<td>3</td>
</tr>
</tbody>
</table>

**Professional Curriculum Core:**

- DH 420  Educational Methodology in Dental Hygiene .......................... 3
- DH 452  Community Dental Health Management .................................. 3
- DH 468  Field Internship ......................................................... 3
- PHS 320  Overview of Health Services Delivery .................................. 3
- CESP 704  Introduction to Educational Statistics (or equivalent) .............. 3

**Electives (6 hours)**

- DH 462  Community Dental Health Management .................................. 3
- DH 470  Issues in Dental Hygiene ................................................. 3
- DH 481  Cooperative Education .................................................. 3
- PHS 343  Program Planning/Development in Health Service Organizations ...... 3
- HS 403  Introduction to Pathophysiology ........................................ 3

**Lower-Division Courses**

- DH 101  Preclinical Dental Hygiene (3) ........................................ 3
- DH 201  Dental Hygiene Concepts I .............................................. 3
ment, and evaluate the clinical care of patients. Emphasizes oral health promotion, dental hygiene diagnosis, patient motivation, and procedures for controlling plaque. Provides the tools to enable students to analyze individual patient needs and design appropriate professional and home care regimens. Prerequisite: departmental consent.

DH 202. Clinical Dental Hygiene I (3). 12L. Spring semester only. Emphasizes providing patient care in a clinical setting and nutritional counseling. Stresses basic instrumentation techniques as well as the prevention of dental disease. Develops patient evaluation and treatment planning skills. Prerequisite: program consent.

DH 206. General and Oral Pathology (3). Spring semester only. Surveys general pathology of tissues and organs of human anatomy. Discusses dental pathology of the teeth, dental pulp, and oral tissues. Considers the signs, symptoms, and manifestations of oral lesions through lectures and visual aids. Prerequisite: program consent.

DH 281. Cooperative Education Field Study (1-8). Provides the student with a field placement which integrates theory with a planned and supervised professional experience designed to complement and enhance the student's academic program. Individualized programs must be formulated in consultation with and approved by appropriate faculty sponsors and cooperative education coordinators. Prerequisites: completion of the freshman year and satisfactory academic standing prior to the first job assignment. May be repeated for credit.

DH 290. Oral Anatomy (1), 1R; 3L. Studies tooth morphology, arrangement, function, and characteristics. Emphasizes the role of tooth morphology as it influences the practice of dental hygiene. Prerequisite: program consent.

DH 295. Oral Histology and Embryology (2). Studies the developmental and microscopic anatomy of the oral cavity including hard and soft tissues. Prerequisite: program consent.

Upper-Division Courses

DH 301. Dental Materials (2), 1R; 2L. Fundamental instruction in practical laboratory phases of modern technique and the manipulation of materials and equipment used in dental practice and expanded auxiliary practice. Prerequisite: program consent.

DH 302. Clinical Dental Hygiene II (2). Continued development of proficiency of clinical techniques emphasizing advanced periodontal instrumentation techniques. Class meets during Summer Session. Prerequisite: program consent.

DH 303. Dental Hygiene Concepts II (2). Fall semester only. Seminar discussion of current and advanced clinical concepts as well as other topics related to the treatment of the medically compromised patient. Prerequisite: DH 301 and program consent.

DH 304. Dental Hygiene Concepts III (2). Spring semester only. Discussion of dental specialties and explanation of the rationale for treatment prescribed by the dentist. Prerequisite: program consent.

DH 307. Ethics and Jurisprudence (2). Spring semester only. Surveys laws governing the practice of dentistry and dental hygiene; types of professional work for which students may qualify; the economics and ethics of the profession. Prerequisite: program consent.

DH 310. Community Dental Hygiene (3). Covers dental public health and community dental hygiene, focusing on education and prevention. Covers the professional philosophy and foundations of dental health education in a community health context, as well as an in-depth study of certain aspects of dental public health such as fluoridation, epidemiology, and program development. Students develop dental health education materials and give presentations in the community.

DH 314. Introduction to Periodontics (3). Spring semester only. Covers the supporting structures of the teeth and an overview of both the biological and clinical aspects of periodontology. Enables dental hygiene students to recognize and differentiate periodontal health from disease, formulate appropriate treatment plans, select appropriate adjunctive therapies, and recognize the role of the dental hygienist as a periodontal co-therapist in initial periodontal therapy and maintenance. Also includes periodontal surgery, occlusal evaluation, antibiotics, and antimicrobial agents, periodontal dressing, and sulcular removal. Emphasizes the evaluation of a periodontal case study resulting in the development of a periodontal treatment plan. Prerequisite: program consent.

DH 316. Pain Management (2), 1R; 2L. Fall semester only. Enhances the dental hygiene student's knowledge of the mechanisms of pain, the control of dental pain through the administration of topical anesthetics, infiltration, and block anesthesia; and use of nitrous oxide. Emphasizes a thorough understanding of the pharmacology of dental drugs and their interaction with the client's current conditions and medications. Prerequisite: HS 301.

DH 323. Clinical Dental Hygiene III (3). 12L. Fall semester only. Emphasizes clinical development of clinical proficiency and utilization of various scaling techniques and instruments. Prerequisite: program consent.

DH 324. Clinical Dental Hygiene IV (3). 16L. Spring semester only. Final semester of clinical dental hygiene. Students utilize information and skills acquired in previous courses and continue to demonstrate proficiency and increase their level of competency in all objectives from DH 202, 302, and 323. Prerequisite: program consent.

DH 348. Clinical Skills Update (1-3). Provides clinical remediation to graduate dental hygienists who wish to review and enhance clinical skills. Students develop a self-study plan to enrich their knowledge and skill above that offered in the dental hygiene core curriculum. Emphasizes identification of clinical skill level, development of remediation schedule, and self-evaluation skills. Students negotiate with dental hygiene program as to the hours of lecture and clinical practice needed to reach student's goals. Graded CR/NCR. Prerequisite: must be a graduate of an accredited dental hygiene program.

DH 358. Pain Management (2). Updates the practicing dental hygienist in the didactic and clinical administration of infiltration and block anesthesia and the use of nitrous oxide. Emphasizes the mechanisms of pain, a thorough understanding of the pharmacology of dental drugs and their interactions with the client's current conditions and medications, and clinical experience in the administration of infiltration and block anesthesia. Prerequisite: must be licensed dental hygienist and graduate of an accredited dental hygiene program.

DH 405. Concepts and Principles of Dental Hygiene Administration (3). Examination and seminar discussion of the following topics: administrative theory, principles and concepts of organizations, history of management thought, planning and effecting innovation, business administration and finance, operations, motivation, leadership, conflict, and communication. Prerequisite: program consent.

DH 409. Introduction to Research for the Health Professions (1). An introduction to the scope, format, and use of research in the health professions. Develops the ability to be a critical consumer of professional literature and the initiator of research projects. Prerequisite: program consent.

DH 420. Educational Methodology in Dental Hygiene (4). Seminar dealing with the implementation of teaching and learning theory and its application in the formation of a course of instruction. Students gain experience in teaching undergraduate students in laboratory/clinical settings. Prerequisite: program consent.

DH 425. Advanced Periodontics (3). An in-depth study of advanced periodontal diagnosis and treatment modalities with application to the clinical settings utilizing evidence-based patient specific protocols. Expands student's ability in assessment, diagnostic, and treatment planning skills. Prerequisite: DH 314 or equivalent.

DH 438. Curriculum Development in Dental Hygiene Education (3). A continuation of DH 420. Focuses on the development of an educational curriculum for a dental hygiene program. Additional opportunities are available for instruction in the clinical/laboratory setting. Prerequisite: program consent.

DH 452. Community Dental Health Management (3). Focuses on the oral health care delivery system and the role of the dental hygienist in managing oral health care. Emphasizes community and dental public health settings and population groups underserved by the current private practice setting. Prerequisites: DH 310 or equivalent and PH 530.

DH 455. Personnel Management in Dental Hygiene (3). Analysis of personnel management and completion of a per-
tured lecture and laboratory experiences in the University's student clinical laboratory as well as in the program's affiliated laboratories: Wesley Medical Center, Via Christi-St. Francis Campus, Via Christi-St. Joseph Campus, the Wichita Clinic, and the Veterans Administration Medical Center, Wichita; Hutchinson Hospital Corporation, Hutchinson; Central Kansas Medical Center, Great Bend; Asbury-Salina Regional Medical Center, Salina; and St. Catherine Hospital, Garden City; Colmery-O'Neil Veterans Hospital and St. Francis Medical Center, Topeka, and Aspen Valley Hospital, Aspen, CO. Upon successful completion of the program, students are granted the Bachelor of Science in medical technology and are eligible to sit for the national certification examinations.

Preprofessional Curriculum

<table>
<thead>
<tr>
<th>Course</th>
<th>Hrs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Basic Skills</td>
<td>12</td>
</tr>
<tr>
<td>ENGL 101 and 102, College English I</td>
<td>6</td>
</tr>
<tr>
<td>COMM 111, Public Speaking</td>
<td>3</td>
</tr>
<tr>
<td>MATH 111, College Algebra</td>
<td>3</td>
</tr>
<tr>
<td>Fine Arts and Humanities</td>
<td>12</td>
</tr>
<tr>
<td>One introductory course from a Fine Arts discipline</td>
<td>3</td>
</tr>
<tr>
<td>One introductory course from each of two Humanities disciplines</td>
<td>6</td>
</tr>
<tr>
<td>A Further Study course from same discipline as Introductory course or an Issues and Perspectives course in Fine Arts or Humanities</td>
<td>3</td>
</tr>
<tr>
<td>Social and Behavioral Sciences</td>
<td>9</td>
</tr>
<tr>
<td>PSY 111, General Psychology</td>
<td>3</td>
</tr>
<tr>
<td>One introductory course from a different Social and Behavioral Sciences discipline</td>
<td>3</td>
</tr>
<tr>
<td>A Further Study course from same discipline as Introductory course or an Issues and Perspectives course in Social and Behavioral Sciences</td>
<td>3</td>
</tr>
</tbody>
</table>

Natural Sciences and Mathematics

<table>
<thead>
<tr>
<th>Course</th>
<th>Hrs</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL 210, General Biology I</td>
<td>4</td>
</tr>
<tr>
<td>BIOL 211, General Biology II</td>
<td>4</td>
</tr>
<tr>
<td>BIOL 223, Introduction to Anatomy and Physiology</td>
<td>5</td>
</tr>
<tr>
<td>BIOL 330, General Microbiology</td>
<td>5</td>
</tr>
<tr>
<td>CHEM 111, General Chemistry</td>
<td>5</td>
</tr>
<tr>
<td>CHEM 112, General and Inorganic Chemistry</td>
<td>5</td>
</tr>
<tr>
<td>Course coverage in organic chemistry (CHEM 531, 5 hours, or CHEM 533 and 534, 5 hours)</td>
<td>5</td>
</tr>
<tr>
<td>CHEM 661, Introduction to Biochemistry, or HS 400, Introduction to Pathophysiology</td>
<td>4</td>
</tr>
<tr>
<td>MED T 405, Medical Immunology</td>
<td>3</td>
</tr>
</tbody>
</table>

*May substitute CHEM 534 and 533, General and Analytical Chemistry (18 hours), if prerequisites are met. Check with advisor.

Admission to Professional Curriculum

Applications should be submitted to the medical technology program by May 1 for fall entry, October 1 for spring entry.

To qualify as a candidate for admission to the professional phase, the student must:
1. Be Admitted to Wichita State University
2. Be in the process, or have completed, the preprofessional requirements
3. Submit application to department
4. Submit three letters of recommendation
5. Have a minimum GPA of 2.500
6. Complete professional goal statement.

Acceptance into the professional phase of the program is determined by the Medical Technology Admissions Committee.

Professional Curriculum

<table>
<thead>
<tr>
<th>Course</th>
<th>Hrs</th>
</tr>
</thead>
<tbody>
<tr>
<td>MED T 400, Clinical Laboratory, Management/Education</td>
<td>3</td>
</tr>
<tr>
<td>MED T 405, Foundations of Laboratory Practice</td>
<td>2</td>
</tr>
<tr>
<td>MED T 450 and 451, Clinical Chemistry I and lab</td>
<td>5</td>
</tr>
<tr>
<td>MED T 452, Analysis of Body Fluids</td>
<td>3</td>
</tr>
<tr>
<td>MED T 456 and 457, Clinical Chemistry II and lab</td>
<td>5</td>
</tr>
<tr>
<td>MED T 459, Applied Clinical Chemistry</td>
<td>3</td>
</tr>
<tr>
<td>MED T 460 and 461, Hematology I and lab</td>
<td>4</td>
</tr>
<tr>
<td>MED T 466 and 467, Hematology II and lab</td>
<td>4</td>
</tr>
<tr>
<td>MED T 469, Applied Hematology</td>
<td>3</td>
</tr>
<tr>
<td>MED T 470 and 471, Immunohematology I and lab</td>
<td>4</td>
</tr>
<tr>
<td>MED T 476 and 477, Immunohematology II and lab</td>
<td>4</td>
</tr>
<tr>
<td>MED T 479, Applied Immunohematology</td>
<td>3</td>
</tr>
<tr>
<td>MED T 480, Immunology/Serology</td>
<td>1</td>
</tr>
<tr>
<td>MED T 489, Applied Clinical Techniques</td>
<td>2</td>
</tr>
<tr>
<td>MED T 490 and 491, Clinical Microbiology I and lab</td>
<td>4</td>
</tr>
<tr>
<td>MED T 494, Special Topics in Clinical Microbiology</td>
<td>3</td>
</tr>
<tr>
<td>MED T 496 and 497, Clinical Microbiology II and lab</td>
<td>3</td>
</tr>
<tr>
<td>MED T 498, Applied Clinical Microbiology</td>
<td>3</td>
</tr>
</tbody>
</table>

MLT to BSMT Progression

Graduates of a NAACLS-accredited MLT-AD program with documentation of a passing score on a national certification exam and who have met other admissions requirements for the Department of Medical Technology program should contact the department office for information concerning degree completion. Other MLT graduates who do not meet the above criteria should contact the department chairperson.

Other Requirements

Students are required to provide their own transportation to the clinical sites. Students are required to purchase professional liability insurance in the amount of not less than $100,000/$300,000. Students must provide evidence of a completed physical exam.

Medical Technology (MED T)

The medical technologist's role in the health care team is to accurately and precisely perform laboratory procedures in order to aid in the prevention, diagnosis, and treatment of diseases. Most medical technologists are employed in medical laboratories in settings such as hospitals, clinics, reference labs, and physicians' offices. The medical technologist also has the skills necessary for employment in related areas such as laboratory and pharmaceutical sales; quality assurance in industries such as food, beverage, chemicals, milling, and plastics; office laboratory consulting; forensic medicine; research; molecular diagnostics and veterinary medicine.

Bachelor of Science in Medical Technology

The Bachelor of Science program in medical technology requires a total of 131 hours, includes 72 hours of premedical technology curriculum in the basic sciences, social sciences, humanities, and communication. The University-based program includes structured lecture and laboratory experiences in the University's student clinical laboratory as well as in the program's affiliated laboratories: Wesley Medical Center, Via Christi-St. Francis Campus, Via Christi-St. Joseph Campus, the Wichita Clinic, and the Veterans Administration Medical Center, Wichita; Hutchinson Hospital Corporation, Hutchinson; Central Kansas Medical Center, Great Bend; Asbury-Salina Regional Medical Center, Salina; and St. Catherine Hospital, Garden City; Colmery-O'Neil Veterans Hospital and St. Francis Medical Center, Topeka, and Aspen Valley Hospital, Aspen, CO. Upon successful completion of the program, students are granted the Bachelor of Science in medical technology and are eligible to sit for the national certification examinations.

Preprofessional Curriculum

<table>
<thead>
<tr>
<th>Course</th>
<th>Hrs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Basic Skills</td>
<td>12</td>
</tr>
<tr>
<td>ENGL 101 and 102, College English I</td>
<td>6</td>
</tr>
<tr>
<td>COMM 111, Public Speaking</td>
<td>3</td>
</tr>
<tr>
<td>MATH 111, College Algebra</td>
<td>3</td>
</tr>
<tr>
<td>Fine Arts and Humanities</td>
<td>12</td>
</tr>
<tr>
<td>One introductory course from a Fine Arts discipline</td>
<td>3</td>
</tr>
<tr>
<td>One introductory course from each of two Humanities disciplines</td>
<td>6</td>
</tr>
<tr>
<td>A Further Study course from same discipline as Introductory course or an Issues and Perspectives course in Fine Arts or Humanities</td>
<td>3</td>
</tr>
<tr>
<td>Social and Behavioral Sciences</td>
<td>9</td>
</tr>
<tr>
<td>PSY 111, General Psychology</td>
<td>3</td>
</tr>
<tr>
<td>One introductory course from a different Social and Behavioral Sciences discipline</td>
<td>3</td>
</tr>
<tr>
<td>A Further Study course from same discipline as Introductory course or an Issues and Perspectives course in Social and Behavioral Sciences</td>
<td>3</td>
</tr>
</tbody>
</table>

Natural Sciences and Mathematics

<table>
<thead>
<tr>
<th>Course</th>
<th>Hrs</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL 210, General Biology I</td>
<td>4</td>
</tr>
<tr>
<td>BIOL 211, General Biology II</td>
<td>4</td>
</tr>
<tr>
<td>BIOL 223, Introduction to Anatomy and Physiology</td>
<td>5</td>
</tr>
<tr>
<td>BIOL 330, General Microbiology</td>
<td>5</td>
</tr>
<tr>
<td>CHEM 111, General Chemistry</td>
<td>5</td>
</tr>
<tr>
<td>CHEM 112, General and Inorganic Chemistry</td>
<td>5</td>
</tr>
<tr>
<td>Course coverage in organic chemistry (CHEM 531, 5 hours, or CHEM 533 and 534, 5 hours)</td>
<td>5</td>
</tr>
<tr>
<td>CHEM 661, Introduction to Biochemistry, or HS 400, Introduction to Pathophysiology</td>
<td>4</td>
</tr>
<tr>
<td>MED T 405, Medical Immunology</td>
<td>3</td>
</tr>
</tbody>
</table>

*May substitute CHEM 534 and 533, General and Analytical Chemistry (18 hours), if prerequisites are met. Check with advisor.

Admission to Professional Curriculum

Applications should be submitted to the medical technology program by May 1 for fall entry, October 1 for spring entry.

To qualify as a candidate for admission to the professional phase, the student must:
1. Be admitted to Wichita State University
2. Be in the process, or have completed, the preprofessional requirements
3. Submit application to department
4. Submit three letters of recommendation
5. Have a minimum GPA of 2.500
6. Complete professional goal statement.

Acceptance into the professional phase of the program is determined by the Medical Technology Admissions Committee.

Professional Curriculum

<table>
<thead>
<tr>
<th>Course</th>
<th>Hrs</th>
</tr>
</thead>
<tbody>
<tr>
<td>MED T 400, Clinical Laboratory, Management/Education</td>
<td>3</td>
</tr>
<tr>
<td>MED T 405, Foundations of Laboratory Practice</td>
<td>2</td>
</tr>
<tr>
<td>MED T 450 and 451, Clinical Chemistry I and lab</td>
<td>5</td>
</tr>
<tr>
<td>MED T 452, Analysis of Body Fluids</td>
<td>3</td>
</tr>
<tr>
<td>MED T 456 and 457, Clinical Chemistry II and lab</td>
<td>5</td>
</tr>
<tr>
<td>MED T 459, Applied Clinical Chemistry</td>
<td>3</td>
</tr>
<tr>
<td>MED T 460 and 461, Hematology I and lab</td>
<td>4</td>
</tr>
<tr>
<td>MED T 466 and 467, Hematology II and lab</td>
<td>4</td>
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<tr>
<td>MED T 469, Applied Hematology</td>
<td>3</td>
</tr>
<tr>
<td>MED T 470 and 471, Immunohematology I and lab</td>
<td>4</td>
</tr>
<tr>
<td>MED T 476 and 477, Immunohematology II and lab</td>
<td>4</td>
</tr>
<tr>
<td>MED T 479, Applied Immunohematology</td>
<td>3</td>
</tr>
<tr>
<td>MED T 480, Immunology/Serology</td>
<td>1</td>
</tr>
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Other Requirements

Students are required to provide their own transportation to the clinical sites. Students are required to purchase professional liability insurance in the amount of not less than $100,000/$300,000. Students must provide evidence of a completed physical exam.
ization, including a tuberculin skin test, rubella, rubeola titer, and hepatitis immunization prior to their clinical assignments in the affiliate laboratories.

Lower-Division Courses

MED T 160. Introduction to the Clinical Laboratory Sciences (2, 1R, 2L). A study of clinical laboratory disciplines, including hematology, immunohematology, chemistry, microbiology, cytology, and histology, through an examination of laboratory testing in each discipline considering the role of the clinical laboratory in the health care system. Suitable for majors to explore career selection and non majors who come in contact with clinical laboratories either as a health professional or as a consumer.

MED T 281. Cooperative Education (1-3). Provides a field placement that integrates theory with a planned and supervised professional experience designed to complement and enhance the student's academic program. Individualized programs must be formulated in consultation with and approved by appropriate faculty sponsors and the cooperative education coordinators. Repeatable for credit. Prerequisite: Basic requirements for admission include successful completion of the freshman year and satisfactory academic standing prior to the first job assignment.

Upper-Division Courses

MED T 310. Clinical Laboratory Services (1). An overview of the services and information provided by the clinical laboratory. Emphasizes basic procedures and interpretation of data. Prerequisite: limited to Physician Assistant students in professional program.

MED T 400. Clinical Laboratory Management/Education (3). A study of the principles and methodologies of laboratory management and supervision and teaching techniques applicable to the clinical laboratory sciences. Prerequisite: Program consent.

MED T 405. Medical Immunology (3). An introduction to the study of immunological concepts as they apply to the role of the clinical laboratory in the health care system. Suitable for those who come in contact with clinical laboratories either as a health professional or as a consumer.

MED T 410A. Special Topics in Clinical Chemistry (1). A review of current quality control procedures, biological variables, interactions, and factors affecting test results. Prerequisite: BSMT or equivalent and MT/CLS certification.

MED T 411B. Special Topics in Hematology (1). Reviews RBC, WBC, platelet morphology, and cell differentiation, along with a summary of the laboratory features associated with various anemias and leukemias. Prerequisite: BSMT or equivalent and MT/CLS certification.

MED T 411C. Special Topics in Immunohematology (2). Generalist training in immunohematology. Through lecture, discussion, and demonstration, technologist explores transfusion products and diagnostic services in a modern blood bank. Prerequisite: BSMT or equivalent and MT/CLS certification.

MED T 411D. Special Topics in Microbiology I (1). Reviews gram and stain media reactions, the new classification of organisms, rapid identification methods, and issues of antimicrobial resistance. Gram positive cocci, gram negative cocci, gram positive bacilli, enterobacteriaceae, non-fermenters, anaerobes, mycobacteria, and miscellaneous organisms. Prerequisite: BSMT or equivalent and MT/CLS certification.

MED T 411E. Special Topics in Microbiology II (1). Reviews virology, mycology, parasitology and morphological characteristics used in the identification of organisms. Focuses on laboratory methods and test interpretation used in the clinical laboratory. Prerequisite: BSMT or equivalent and MT/CLS certification.

MED T 411F. Special Topics in Urinalysis/Hemostasis (1). Urinalysis segment reviews current quality assurance requirements, urine sediment, and correlation of physical, chemical, microscopic tests with clinical significance. In hemostasis, reviews coagulation abnormalities using a case study approach. Emphasizes the laboratory tests used in diagnosing various coagulopathies. Prerequisite: BSMT or equivalent and MT/CLS certification.

MED T 411G. Special Topics in Forensic Investigation (2). An exploration of concepts and principles of forensic science related to investigation of injury and death. Specialized topics in forensic pathology and clinical practice such as medicolegal evidence, violence injury and environmental pathology are included.

MED T 411H. Special Topics in Consumer Understanding of Laboratory Values (1).

MED T 416. Special Topics in Clinical Chemistry (4). A study of the principles, concepts, and techniques of basic clinical laboratory instrumentation including absorption, spectrophotometric, ultraviolet, emission, fluorometric and nephelometric techniques utilized in the clinical chemistry laboratory for the analysis of serum, plasma, and other body fluids.

MED T 451. Clinical Chemistry I Laboratory (1). Application of the theory of the procedures and techniques used for colorimetric, spectrophotometric, and ultraviolet analysis of serum, plasma and other body fluids for clinically significant substances.

MED T 452. Analysis of Body Fluids (3). 2R, 3L. Includes the study of renal physiology, routine urinalysis, and renal function tests. Also encompasses the principles and techniques involved in the analysis of cerebrospinal fluid, feces, gastric fluid, sputum fluid, amniotic fluid, ascitic fluid, duodenal fluid, salivary fluids, and seminal fluid.

MED T 456. Clinical Chemistry II Laboratory (3). 4R. Includes advanced instrumentation principles and techniques, acid base balance, advanced enzymology, endocrinology, and toxicology. Emphasizes relationships existing between substances of the body and procedural development and evaluation. Prerequisite: MED T 450.

MED T 457. Clinical Chemistry II Laboratory (3). 4L. A laboratory course encompassing the application of the principles of technique appropriate to the evaluation of methodology, acid base balance, advanced enzymology, endocrinology and toxicology. Prerequisite: MED T 456, current enrollment, or program approval.

MED T 459. Applied Clinical Chemistry (3). Application of clinical chemistry procedures and techniques in the analysis of blood fluids in a clinical laboratory setting. Prerequisites: MED T 450 or concurrent enrollment and/or program consent.

MED T 460. Hematology I (3). Emphasizes the theory underlying basic procedures performed in the hematology laboratory and the relationship between these procedures and the diagnosis of disease. Prerequisites: BIOL 223 and program consent.

MED T 461. Hematology I Laboratory (1). 3L Emphasis on performance of the basic procedures used in the hematology laboratory, including complete blood counts, normal and abnormal differentials, and miscellaneous hematology tests. Prerequisites: MED T 460 or concurrent enrollment and/or program consent.

MED T 466. Hematology II (3). Emphasizes the clinical significance of laboratory data and its correlation with pathologic conditions. Includes in-depth discussions of anemia and leukemias. Prerequisites: MED T 460, 461, and program consent.

MED T 467. Hematology II Laboratory (1). 3L Emphasis on special testing; procedures used in the hematology laboratory for diagnosis of anemias and various white cell disorders such as leukemia. Prerequisites: MED T 466 or concurrent enrollment and program consent.

MED T 469. Applied Hematology (3). Application of the theory and technical skills of hematology in a clinical laboratory. Prerequisites: MED T 467, and program consent. Offered Cr/NC only.
MED T 478. Immunohematology I (3). An introduction to blood banking theory pertinent to assurance of quality transfusion practices in a donor service, including selection, collection, processing, and component therapy; and to a transfusion service, including application of immunology and genetics to blood group systems, compatibility testing, and clinical correlations related to transfusion reactions and to the prediction, diagnosis, and prevention of hemolytic disease of the newborn. Prerequisite: MED T 405 or equivalent or instructor's consent.

MED T 479. Immunohematology II (3). A laboratory course in techniques relevant to performance of a blood banking technologist in a donor or transfusion service. Methodology includes blood typing, antibody screening, single antibody identification, compatibility testing, prenatal testing, neocellular testing, Rh immune globulin, and quality assurance of immunohematology laboratory procedures. Prerequisite: MED T 405 or equivalent and MED T 476 or concurrent enrollment or instructor's consent.

MED T 477. Immunohematology II Laboratory (3). A laboratory course in techniques relevant to resolution of medical-legal cases, antibody identification, and problems encountered in blood typing, compatibility testing, hemolytic, hemolytic disease of the newborn, Rh immune globulin, and hemolytic anemia workshops. Prerequisite: MED T 476 or instructor's consent.

MED T 478. Immunohematology II Laboratory (3). A laboratory course in techniques relevant to resolution of medical-legal cases, antibody identification, and problems encountered in blood typing, compatibility testing, hemolytic, hemolytic disease of the newborn, Rh immune globulin, and hemolytic anemia. Prerequisite: MED T 476 or concurrent enrollment or instructor's consent.

MED T 480. Clinical Immunology/Serology I (3). The theory and technical skill of immunohematology in a clinical laboratory with experiences in prenatal testing, antibody identification, direct antiglobulin evaluation, provision of safe blood or blood components for transfusion, and resolution of discrepancies encountered in performing any of the procedures. Offered Cr/No Cr only. Prerequisites: MED T 467, 468, and program consent.

MED T 481. Co-op Education (1-3). See PT 281. Please see the Graduate Catalog for Master of Physical Therapy courses.

Lower-Division Course

PT 281. Co-op Education (1-3). A field placement which integrates course work with a professional experience designed to complement and enhance the student academic program. Programs must be formulated in consultation with and approved by faculty sponsors and cooperative education coordinators. Students follow one of two patterns: parallel, enrolling concurrently in a minimum of 6 hours of course work, or alternating, working full time one semester in a field study and returning to full school enrollment the following semester; such students need not be concurrently enrolled in other courses. Prerequisite: successful completion of freshman year and satisfactory academic standing prior to the first job assignment. May be repeated for credit.

Upper-Division Course

PT 481. Co-op Education (1-3). See PT 281.

Physical Assistant (PA)

The Department of Physical Assistant offers a graduate degree program leading to an MPA degree. Refer to the Graduate Catalog for program requirements. The bachelor degree will be phased out by summer 2005. No new bachelor degree-seeking students are being admitted.

Physicians assistants (PAs) are professional members of the health care team who, working with physicians, provide diagnostic and therapeutic patient care in virtually all medical specialties and settings.

PAs take medical histories, perform physical examinations, and order laboratory tests. After diagnosing a problem, the PA develops and implements a treatment plan. When appropriate, the PA confers with the supervising physician and other health professionals.

Students successfully completing the 24-month physician assistant professional curriculum who meet all University and college requirements receive the Bachelor of Science--Physician Assistant degree. Graduates of the program are eligible to take the examination given by the National Commission on Certification of Physician Assistants. Passage of this examination is required by most states (including Kansas) for physician assistant practice. The WSU Physician Assistant Program is fully accredited by the
Accreditation Review Commission on Education for the Physician Assistant.

Preprofessional Curriculum
The physician assistant program maintains the philosophy that persons with varied backgrounds can be successful physician assistant students. Prior health care experience is not required, but is preferred. Interested parties should contact the physician assistant program for detailed application information, including time frame for applying, references, and selection criteria. Admission to the program is highly competitive. Requirements must be complied with in complete and accurate detail. The physician assistant program curriculum builds on a foundation of liberal arts and sciences.

Course work taken longer than 10 years ago will be subject to program review. Students may be required to repeat certain prerequisite courses.

1. Applicants with any academic degree should consult a member of the program’s faculty to determine if the preprofessional requirements for admission to the program and for the Bachelor of Science degree have been met.

2. For any person holding a bachelor’s degree the following are required:
   a. BIOL 210 (4 hours), BIOL 220 (4 hours), BIOL 223 (5 hours)
   b. CHEM 111 (5 hours), CHEM 112 (5 hours)
   c. MATH 111, College Algebra or equivalent (3 hours)
3. All others complete the following:
   a. The GEC requirements
   b. BIOL 210 (5 hours), BIOL 220 (4 hours), BIOL 223 (5 hours)
   c. CHEM 111 (5 hours), CHEM 112 (5 hours)
Additional academic requirements:
1. An overall college grade point average of 3.000/4.000
2. A grade point average of 3.000/4.000 for prerequisite course work
3. A grade of C or better in all courses

Course

Basic Skills
ENGL 101 and 102, College English I and II or COMM 111, Public Speaking

Fine Arts and Humanities

One Introductory course from a Fine Arts discipline
One Introductory course from each of two Humanities disciplines
A Further Study course from same discipline as Introductory course or an Issues and Perspectives course in Fine Arts or Humanities

Social and Behavioral Sciences

One Introductory course from each of two different Social and Behavioral Sciences disciplines
A Further Study course from same discipline as Introductory course or an Issues and Perspectives course in Social and Behavioral Sciences

Natural Sciences and Mathematics

Introductory courses
CHEM 111, General Chemistry
BIOL 210, General Biology I
Further Study course
CHEM 112, General and Inorganic Chemistry

Additional requirements

BIOL 220, Introduction to Microbiology
BIOL 223, Human Anatomy and Physiology
MATH 111, College Algebra

General Information for Admission to Professional Curriculum
Students entering the physician assistant professional course of study are required to purchase malpractice insurance in an amount set by the State of Kansas. Students are also required to purchase all the diagnostic equipment needed for use during the two-year course of study as well as the required articles of dress.

Applications for the physician assistant program are submitted online to a centralized application service. Contact the program for specific details. Applicants should be aware that admission to the University is not admission to the physician assistant program.

Selection for admission to the physician assistant professional curriculum is based on many factors. Each applicant is evaluated in terms of academic performance, health care experience, references, communication skills, and so forth.

Professional Curriculum
The physician assistant program curriculum consists of both classroom and clinical courses. Courses are taught by physicians, physician assistants, and other health care professionals in locations throughout the state.

Once admitted, students must take the following courses to meet the physician assistant professional requirements. Professional courses are available only to students in the program.

Professional Curriculum (all courses are required)

Junior Year — Fall
Course
PA 388, Clinical Anatomy I
PA 390, Clinical Physiology
PA 300, Medical History and Physical Examination
PA 302, Patient Counseling

Total 13

Spring
PA 399, Clinical Anatomy II
HS 710, Applied Clinical Pharmacology
MED T 310, Clinical Laboratory Services

Total 22

Summer
PA 395, Clinical Skills II
PA 430, Clinical Conference I

Total 15

Fall
PA 410, Clinical Rotation I
PA 412, Clinical Rotation II
PA 414, Clinical Rotation III
PA 418, Clinical Rotation IV

Total 15

Spring
PA 419, Clinical Rotation V
PA 422, Clinical Rotation VI
PA 425, Clinical Rotation VII
PA 432, Clinical Conference II

Total 15

Summer
PA 440, Clinical Precceptorship

Total 6

Total Degree Hours
Preprofessional

Junior year

Senior year

Graduation Requirements
Students who meet the course requirements specified in the physician assistant curriculum receive a Bachelor of Science degree in Physician Assistant Studies.
lar of Science degree with a physician assistant major.

Other Requirements
Students must purchase laboratory jackets, identification patches, and name tags, and are required to provide their own transportation to the clinical site. Students must provide evidence of a complete physical examination including a tuberculin skin test, MMR immunization, Hepatitis B or titers, and health insurance prior to enrollment.

Lower-Division Courses
PA129. Pharmacology of Street Drugs (1). Covers most major classes of drugs of abuse including alcohol, depressants, narcotics, stimulants, hallucinogens, marijuana, and other counter medications as well as prescription medications used to treat mental disorders. The focus will be on their patterns of misuse, intoxication, mechanism of action, adverse effects, and drug interactions. Methodology includes lecture presentations, group discussions, clinical case studies, homework assignments, and quizzes.

PA158. Medical High-Risk Issues for Substance Abuse Counselors (1). Covers basic medical terminology related to the substance abuse field; etiology, transmission, and management of sexually transmitted diseases and other communicable diseases; basic pharmacology and physiology of substance use; and medical/legal implications to include patient confidentiality. Guest instructors are noted for their expertise in the area of content presented. This course does not satisfy WOU's social science requirement, nor does it count toward a psychology major.

PA201. Cooperative Education Field Study (1-3). A field placement which integrates course work with a planned and supervised professional experience designed to complement and enhance the student's academic program. Individualized programs must be formulated in consultation with and approved by appropriate faculty sponsors and cooperative education coordinators. Students may follow one of two scheduling patterns: parallel, enrolling concurrently in a minimum of 6 hours of course work in addition to their Co-op assignment, or alternating full-time one semester in a field study and returning to full school enrollment the following semester; such students need not be concurrently enrolled in any other course. Prerequisites: completion of the freshman year and satisfactory academic standing prior to the first job assignment. May be repeated for credit.

Upper-Division Courses
PA300. Medical History and Physical Examination (3). Provides the theoretical and practical knowledge that can be utilized to obtain an appropriate medical history and/or conduct a proper physical examination (complete/pertinent). Also focuses on the identification of normal and abnormal physical findings. Practice of methods and techniques learned take place in a faculty-proctored laboratory setting. Prerequisite: admission to PA professional program.

PA302. Patient Counseling (2). Considers the theories and techniques of patient counseling; emphasizes effective communication, basic counseling techniques, and basic strategies for therapeutic intervention. Deals with the philosophies of counseling for a wide range of cognitive and behavioral problems common to the primary care setting. Prerequisite: admission to PA professional program.

PA315, PA Professional Issues (1). Introduces the junior PA students to a wide variety of issues, such as legal, ethical, and professional issues regarding PA practice. Prerequisite: admission to PA professional program.

PA316. Assessment and Management of the Integument (1). Deals with the skin as a major organ. Includes wound healing, burn management, tissue reactivity, cutaneous manifestations of systemic disease, specific diagnostic techniques with regard to assessment of dermatologic disorders and introduction to dermatologic disorders through case presentations. Prerequisite: admission to PA professional program.

PA317. Assessment and Management of the Endocrine System (1). Deals with the endocrine system. Includes diseases of the pituitary gland and hypothalami; diseases of the thyroid, parathyroid, and adrenal glands; diabetes mellitus diagnostic procedures; special diets; endocrine emergencies and the treatment of endocrine diseases. Prerequisite: admission to PA professional program.

PA320. Assessment and Management of Ophthalmic and Otoneurological Problems (3). Deals with the pathophysiology of the eye, ear, nose, and throat. Emphasizes etiology, diagnosis, and treatment of ophthalmic and otoneurological (ENT) problems. Includes tumors of the ear, nose, throat, and eye; audiometry and ophthalmic manifestations of systemic diseases. Prerequisite: admission to PA professional program.

PA323. Assessment and Management of the Cardiopulmonary Systems (4). Deals with the cardiopulmonary systems. Includes the assessment and management of acute and chronic cardiopulmonary diseases, peripheral vascular disease, and emergencies. Appropriate evaluation of roentgenology studies, EKGs, laboratory studies; includes pulmonary functions and blood gases as applicable to the primary care setting. Prerequisite: admission to PA professional program.

PA325. Preventive Medicine and Community Health (2). Addresses topics in preventive medicine and community health including risk factors for the major causes of death and disability, behavioral techniques used in making health behavior change, health-risk appraisal instruments, health screening, and disease and accident prevention. Introduces community agencies with roles in disease prevention, health education, and health promotion. Prerequisite: admission to PA professional program.


PA328. Introduction to Alternative and Complementary Medicine (3). Provides a fundamental and basic knowledge of medical therapies that are alternatives to or complementary of traditional Western medicine. Covers naturopathy, traditional Chinese medicine, homeopathy, botanical medicine, massage therapy, chiropractic, etc. Examines research evidence for effectiveness and how these therapeutic approaches may blend with and complement the more traditional clinical approach. Combines didactic presentations with a mix of demonstrations by alternative health care providers, visits by patients, case studies, and small group presentations.

PA330. Assessment and Management of the Gastro-Intestinal System (4). A theory, laboratory, and clinical course; deals with the gastro-intestinal (GI) system. Includes assessment of diseases of organs in the GI tract, special problems of the newborn, relationships of the autonomous nervous system to GI symptomatology, roentgenology of the GI tract, GI manifestations of psychic disturbances, and demonstration of special diagnostic instruments. Prerequisite: admission to PA professional program.

PA333. Assessment and Management of Obstetrics and Gynecology (3). Deals with obstetrics and gynecology. Includes the menstrual cycle, pregnancy, gynecologic diseases, techniques of normal delivery, obstetrical emergencies, family planning, and infertility. Prerequisite: admission to PA professional program.

PA335. Assessment and Management of the Renal and Genito-Urinary Systems (3). Deals with the kidneys, ureters, bladder, and prostate. Includes electrolyte and fluid balances, hypertension, tumors of the genito-urinary (GI) system, infectious diseases, trauma, calculi, and special diagnostic procedures. Examines common venereal diseases emphasizing management, treatment, and epidemiology. Prerequisite: admission to PA professional program.

PA336. Applied Clinical Practice (2). Further prepares students for the senior clinical learning experience and practice beyond. Emphasizes patient management, clinical problem-solving, and critical-thinking skills in both inpatient and outpatient settings. Includes small group discussion, computer-assisted instruction, problem-oriented patient cases, patient interaction, and individual patient presentations. Prerequisite: admission to PA professional program.

PA337. Assessment and Management of the Neuro-Musculo-Skeletal Systems (3). Emphasizes the recognition, evaluation and management of neuro-musculo-skeletal diseases and injuries in primary care, emergency, and inpatient settings. Prerequisite: admission to PA professional program.

PA375. Clinical Skills I (3). IR; 4! Graded S/U. A combined theory, laboratory, and clinical experience; students apply
their knowledge to the care of patients. Includes the physical examination emphasizing applied anatomy and physiology basic to understanding the examination with examples of abnormalities; medical terminology, evaluation of patients' patient rapport and professional conduct. Emplants lecture, simulation, and clinical application. Prerequisite: admission to PA professional program.

PA 388. Clinical Anatomy (3). Fall semester. Further the understanding of the health professional in a comprehensive and/or specific area of human anatomy. Emphasizes human anatomy of the back, upper extremity, lower extremity, head, and neck. Prerequisites: BIOL 223 or equivalent and enrollment in the PA professional program or instructor's consent.

PA 389. Clinical Anatomy (2). Spring semester. A continuation of PA 388 emphasizing human anatomy of the thorax, gastrointestinal, and genital-urinary systems. Prerequisites: PA 388 and enrollment in the PA professional program or instructor's consent.

PA 390. Clinical Physiology (3). Further the understanding of the health professional in a comprehensive and/or specific area of human physiology and the clinical application of this knowledge in patient management. Departments select the number of credit hours needed for their program and offer them under this course number with a designated subsection. Prerequisites: Instructor's consent and enrollment in one of the professional programs.

PA 410. Clinical Rotation I (3). A six-week clinical experience; students participate in the care of patients in a variety of medical settings and specialties. Emphasizes orientation to medical practice-setting and obtaining and recording a complete and/or problem-oriented medical history. Students obtain and record complete and/or problem-oriented physical examination data; become familiar with common diagnostic procedures and involved in the selection of therapeutic regimens. Students are, at the discretion of the preceptor, included in all aspects of health care services offered at the site. Graded S/U. Prerequisites: admission to PA professional program and faculty approval.

PA 412. Clinical Rotation II (3). See PA 410. Emphasizes obtaining and recording complete and/or problem-oriented physical examination data. Graded S/U.


PA 418. Clinical Rotation IV (3). See PA 410. Emphasizes the selection of appropriate therapeutic regimens and their indications, availability, reliability, and limitations. Graded S/U.

PA 419. Clinical Rotation V (3). See PA 410. Emphasizes the art of medicine and gaining the confidence of the patient and family. Graded S/U.


PA 425. Clinical Rotation VII (3). See PA 410. Emphasizes integrating the skills and knowledge obtained in previous rotations, as well as health promotion, disease prevention, and patient education. Graded S/U.

PA 430. Clinical Conference I (1). 1R; 2L. Major focus on synthesis of didactic and clinical education and training as it applies to advanced cardiac life support. Graded S/U. Prerequisite: student in PA professional program.

PA 432. Clinical Conference II (0). 1R; 3L. Spring semester only; for clinical physician assistant students. Focuses on issues affecting the graduate physician assistant, which include legislative issues, professional associations and responsibilities, practice limitations, and malpractice issues. Includes review sessions for the National Board Examination utilizing lecture, demonstration, and computer-assisted instruction. Prerequisites: admission to PA professional program.

PA 448. Clinical Preceptorship (6). Eight-week course; culmination of the student's clinical training. Students are placed with a primary-care physician to enable them to function as members of the health-care team in a setting similar to that which would be encountered by the graduate physician assistant. Graded S/U.

PA 481. Cooperative Education Field Study (1-8). See PA 281.

Course for Graduate Undergraduate Credit

PA 525. Special Topics (1-4). Lecture/discussion; focuses on a discrete area content relevant to the health disciplines. In-depth study of a particular topic or concept, including didactic and current research findings and technological advances relevant to the topic. Open to non-majors; requires department consent.

Please see the Graduate Catalog for information about WSU's Master of Physician Assistant program.

Basic Emergency Medical Care Training (EMT) (Currently suspended) A certificate in basic emergency medical care training is offered. The certificate is obtained with successful completion of EMT 110 and 112. EMT graduates are prepared for state certification exams while in the program. Students who would like to enroll in this course must fulfill all requirements for admission to Wichita State.

EMT 110 and 112 encompass classroom instruction, 16 hours of hospital ER observation, and 24 hours of EMS ride-along time. Successful completion of each course meets the educational prerequisite for taking the state and/or national registry examinations for emergency medical technicians. Portions of EMT are online or asynchronous learning.

Lower-Division Courses

EMT 110. EMT Basic (3). EMT-Basic (EMT 110) is intended for individuals interested in providing care to patients in the pre-hospital setting. EMT 110 must be taken concurrently with EMT-Basic Skills (EMT 112) to prepare the student for application to challenge the state certification exam. The course will provide the participant with opportunities to achieve the cognitive and affective objectives of the US Department of Transportation EMT-B National Standard Curriculum.

A. Recognize the nature and seriousness of the patient's condition or extent of injuries to assess requirements for emergency medical care.
B. File a standardized "Patient Report" form of occurrence for use of the receiving hospital as well as a permanent record for local use.
C. Transmit necessary information from the ambulance to the receiving hospital and dispatcher in an orderly manner using mobile radio equipment.
D. Demonstrate the attitudes, values, and cognition necessary to effectively and compassionately function as an EMT-Basic.

EMT 112. EMT Basic Skills (3). EMT-Basic Skills (EMT 112) provides the instruction, practice, and evaluation necessary to prepare participants for skills practice as an EMT-Basic. The course will provide opportunities for the participant to accomplish the psychomotor and affective objectives of the curriculum in accordance with the Department of Transportation EMT-Basic National Standard Curriculum. 1994 as adopted and amended by the Kansas Board of EMS. Participant success assumes concurrent mastery of the cognitive objectives (see EMT 110, EMT-Basic course) as well as significant practice to ensure acquisition of the course objectives below.

A. Administer appropriate emergency medical care based on assessment findings of the patient's condition;
B. Lift, move and otherwise handle the patient to minimize discomfort and prevent further injury;
C. Perform safely and effectively the expectations of the job description;
D. Demonstrate the attitudes, values, and cognition necessary to effectively and compassionately function as an EMT-Basic.

Mobile Intensive Care Technicians (MICT) (Currently suspended)

A program for the training of mobile intensive care technicians (MICT) or paramedics is offered at Wichita State University in Ahlberg Hall. The basic program consists of 52 credit hours in 18 months. Completion of MICT prerequisites and the MICT program qualifies the student for the Associate of Applied Science Mobile Intensive Care Technician. Successful completion of this program does not guarantee certification but does allow one to challenge the certification examination given by the State of Kansas. In addition, students who have completed the MICT training and taken the required general education courses in
receive the AAS degree may apply to the bachelor's degree program in health sciences.

Lower-Division Courses

MCT 205. Introduction to Advanced Pre-Hospital Care (4).
An overview of the role of pre-hospital personnel, medical ethics, medical legal issues, EMS systems, communication procedures, medical terminology, patient assessment, history taking, body systems review, and fluid and electrolytes. Prerequisites: instructor and department approval.

MCT 207. Electrophysiology (3). Presents the techniques of assessment and management of the cardiac patient and associated disease processes common with the cardiac patient. Covers recognition of cardiac rhythms and management of different cardiac arrhythmias from the standpoint of emergency care. Prerequisites: instructor and department approval.

MCT 210. Pre-Hospital Pharmacotherapeutics (3). Presents the information needed for administering the medications used in pre-hospital situations, the methods of administration, conversion of various measures and information on drug regulating agencies. Prerequisites: instructor and department approval.

MCT 215. Adult and Pediatric Medical Emergencies (8).
Presents the pathophysiology and management of disorders of the respiratory system, endocrine system, central nervous system, and gastrointestinal system. Includes information on communicable diseases, exposure emergencies, geriatric emergencies, pediatric emergencies, obstetric emergencies, and psychiatric emergencies. Prerequisites: instructor and department approval.

MCT 217. Traumatology (7). Discusses the kinetics of injury and management of the adult and pediatric trauma patient, including airway and fluid management, pre-hospital treatment of various injury states including blunt and penetrating trauma, burns, and triage. Prerequisites: instructor and department approval.

Upper-Division Courses

MCT 320. Clinical Internship (6). Receive in-hospital training with physicians, nurses, and technicians in their area of expertise including ER, OR, IV Team, LDR, ICU, or other areas where skills learned are applied to pre-hospital care. Prerequisites: instructor and department approval.

MCT 322. Clinical Correlation (1). Review and discussion of experiences gained during the clinical/field internship and the application of this information to the pre-hospital setting. Prerequisites: instructor and department approval.

MCT 334. Field Internship (1). Pre-hospital training with local emergency medical services which are supervised by certified MICTs. Prerequisites: instructor and department approval.

Public Health Sciences (PHS)

Bachelor of Science in Health Services Management and Community Development

The Department of Public Health Sciences develops leadership capacity for a healthy society through both its undergraduate and graduate degree programs. At the undergraduate level, the department offers the Bachelor of Science degree in Health Services Management and Community Development as described below. This curriculum establishes a 45 credit hour professional degree program to prepare graduates for entry-level positions in the management, planning and assessment of health services delivery across the spectrum of health care, such as acute care medicine, public and community health, and long term care.

The department also offers the Master of Public Health (MPH) degree which is fully accredited by the Council on Education for Public Health. For more information on the MPH, see the Graduate School catalog.

Program Mission

Educating future health care leaders in the fundamental administrative, analytic, behavioral, and social competencies necessary to:

1. Effectively manage today's complex and dynamic health care organizations, and
2. Engage in community development initiatives essential to enhancing the health and well-being of human populations.

The Bachelor of Science in Health Services Management and Community Development prepares its graduates for entry-level positions in the management, planning and assessment of health service delivery in both the public and private sectors.

This 45 credit hour professional degree program is appropriate for individuals interested in applying the social and business sciences to a career in the health care sector. Students enrolled in this curriculum must complete a 21 credit hour core that provides the knowledge and skills sets that are basic to health services delivery and population health assessment.

Program majors complete 21 credit hours, beyond the core, in one of the program's two focused areas of emphasis, either Health Services Management or Community Development.

In addition to the program core and a selected emphasis area, all program majors must take a 3 credit hour capstone seminar at or near the end of their program of study.

Health Services Management Focus

The Health Services Management Focus provides students with the analytic, administrative, and leadership skills necessary for entry level managerial positions in acute care medicine (medical group practices, health insurance corporations, medical product companies, hospital and ambulatory care clinics, and EMS systems management), long term care (nursing homes, home health care agencies, continuing care facilities, and hospice), and public and community health (state health agencies, local health departments, and community-based health and wellness agencies).

In addition to didactic course work, students electing the Health Services Management Focus must complete a 3 credit hour practicum placement (educational work experience) in a local health care organization.

Students who select this emphasis area will graduate with a major in Health Services Management and Community Development: Health Services Management Focus. Students who are interested in the Health Services Management Focus are strongly encouraged to minor in Business Administration as an appropriate complement to this career choice. Additional information on this minor can be found under information pertaining to the Barton School of Business or can be obtained through program advisors.

Community Development Focus

The Community Development Focus addresses the needs of students who are interested in gaining entry-level competencies in designing and implementing culturally sensitive health care services, planning and assessing health programs, developing strategies for health promotion, and building advocacy relationships with those who make health policy.

Students who select this option will gain first hand experience with local community initiatives and will have significant learning opportunities in community settings.

In addition to specified course work, students electing the Community Development focus must complete a 3 credit hour community-based project (application and problem-solving experience) involving a current community health issue. Students who select this emphasis area will graduate with a major in Health Services Management and Community Development: Community Development focus.

Students who are interested in the Community Development focus are strongly encouraged to consider general education course work that emphasizes a) communication skills, b) ethnocultural factors in society, and c) the public sector. A list of general education courses suggested, as being especially compatible with this focus is available through program advisors.

Students who are interested in the Community Development focus are encouraged to work with faculty advisors to determine the most appropriate social science minor for their career path; examples of appropriate minors include, but are not limited to, psychology, sociology, anthropology, communications, political science, etc.

Undergraduate Minor

A minor in Health Services Management and Community Development is available to any student outside the program major. The minor consists of the 21 credit hour program core. It does not include selections from either of the program foci areas.
Admission Requirements
All students with a declared interest in Health Services Management and Community Development are encouraged to seek professional advising through the College of Health Profession's Advising and Student Services office.

In order to be admitted to the Health Services Management and Community Development Program, students must fulfill the following requirements:

1. Completion of at least 42 semester credit hours of college-level course work with a cumulative GPA of 2.25 or higher.
2. Have completed English 101 and 102, Communication 111 and Math 111, each with a grade of C or better.
3. Complete the designated application process to the program and be formally admitted. The application packet is available through the Department of Public Health Sciences and the College of Health Professions Advising and Student Services Office. To be considered for admission to the program, an applicant must ensure receipt of the following:
   a. Official transcripts from all institutions of higher learning attended by the applicant.
   b. A properly completed Application for Admission to the Health Services Management and Community Development program, including a personal statement.
   c. WSU Application (if transfer student).
4. Have completed program prerequisites of one course in basic statistics, one course in oral communications beyond Communication 111, and one course in basic computer applications, with a grade of C or better. Students who have not completed one course in each of these three areas may be considered for admission with deficiencies.

Students admitted with deficiencies must complete outstanding prerequisite courses within the first semester of admission to the program. The deficiency designation will be removed upon successful completion of the stipulated course work. Failure to complete deficiencies within the prescribed time frame will constitute grounds for dismissal from the program. Students admitted with a deficiency will not be allowed to take focus specific course work until the program prerequisites have been satisfied.

Courses recommended to fulfill the basic statistics prerequisite - select one:
- ECON 231 - Introductory Business Statistics
- concurrent software applications lab-highly recommended for students considering Health Services Management focus

STAT 370 - Elementary Statistics

Courses recommended to fulfill the oral communication prerequisite - select one:
- COMM 302 - Interpersonal Communication
- COMM 311 - Persuasion
- COMM 325 - Speaking in Business and the Professions
- COMM 313 - Argumentation and Advocacy

COMM 328 - Teamwork, Leadership and Group Communication
COMM 325 - Speaking in Business and the Professions

Courses recommended to fulfill the basic computer applications prerequisite:
- Accounting 260 - Introduction to Information Processing Systems for Business or the cross-listed equivalency
- CS 105 - Introduction to Computers and their Applications

Progression
Program majors must complete PHS 320, "Overview of Health Services Delivery" and at least six additional credit hours of core course work before taking any course in either of the two program focus areas. Students must have senior standing to take either PHS 460 "Health Services Management Practicum" or PHS 461 "Community Development Special Project". PHS 470, "Capstone Seminar" must be elected as close as possible to the student's final semester of study.

Students in the Health Services Management and Community Development program are required to maintain a cumulative grade point average of 2.25, with no individual course grade, in the major, lower than a C. Students failing to meet this requirement will have one semester to correct their GPA deficiency. Failure to do so will result in dismissal from the program.

General
Students do not need to declare a focused area of interest prior to beginning the program. However, a student must declare a focus area prior to electing focused course work.

Upon declaration of their focus, either Health Services Management or Community Development, a student will be assigned a faculty advisor with primary expertise in the area of interest. A student may not elect focus specific course work without input from their faculty advisor. Course work from one focus area will not transfer to the other focus area. Students must complete all course work in their selected focus to be awarded the degree.

For students in the Health Services Management focus, who are also pursuing the recommended minor in Business Administration, BLAW 431 may be counted as fulfilling the law course requirement in both the program major and the business minor. Please note, although BLAW 431 may count toward both the major and the minor, it still counts as only 3 credit hours toward the 124 credit hours required to graduate. Non-majors without instructor permission may not elect 400 level program courses.

Professional Curriculum

Required Core Courses

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours</th>
</tr>
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<tbody>
<tr>
<td>PHS 320, Overview of Health Services Delivery</td>
<td>3</td>
</tr>
<tr>
<td>PHS 325, Introduction to Epidemiology</td>
<td>3</td>
</tr>
<tr>
<td>PHS 333, Organizational Behavior and Leadership in Health Service Organizations</td>
<td>3</td>
</tr>
<tr>
<td>PHS 342, Financing Health Care Services</td>
<td>3</td>
</tr>
<tr>
<td>PHS 344, The Role of Culture in Health and Care</td>
<td>3</td>
</tr>
<tr>
<td>PHS 352, Strategic Management in Health Service Organizations</td>
<td>3</td>
</tr>
<tr>
<td>PHS 354, Health Politics</td>
<td>3</td>
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</tbody>
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Required Capstone
- PHS 470, Capstone Seminar in Health Services Management and Community Development

Required Courses in Health Services Management Focus
- PHS 328, Health Care Organization
- BLAW 431, Legal Environment of Business
- PHS 448, Concepts of Quality
- PHS 458, Long-Term Care Systems
- PHS 460, Health Services Management Practicum
- PHS 468, Quantitative Methods in Health Care
- PHS 478, Health Economics

Required Courses in the Community Development Focus
- PHS 403, Sole to Soul: Health Promotion in Action
- PHS 423, Program Planning and Development in Health Services Organizations
- PHS 443, Social Marketing
- PHS 461, Healthy Options for Communities: A Community-Based Practicum in Neighborhood Development
- PHS 643, Geographic Information Systems in Community Epidemiology
- PHS 663, Community Action Research

Required Selective in Community Development Focus

Students must select one of the following courses to fulfill the focus requirements in Community Development:

- PHS 448, Concepts of Quality
- PHS 478, Health Economics
- Total Hours Required for Major: 21 hrs required core + 21 hrs required for selected focus + 3 hr capstone seminar = 45

Graduate Credit for Seniors (Senior Rule)
Seniors who are in the undergraduate program, and who intend to pursue either the graduate certificate in Public Health or the Master of Public Health degree may take course work for graduate credit under the Senior Rule if they: 1) have an overall grade point average of 3.00 or above in their major field and in upper-division courses and 2) are within 10 hours of completing the Bachelor of Science degree in Health Services Management and Community Development. Policies and procedures for exercising this option may be found in the General Information section of this catalog.
Administrator-in-Training (AIT) Practicum Placement Program

The AIT is designed to place qualified applicants in a 9 credit hour, 490 hour practicum placement with a qualified nursing home administrator, as part of the preparation necessary for becoming a licensed nursing home administrator in the state of Kansas.

The AIT practicum placement program is available in individuals with a bachelor's degree, who have had course work in gerontology or long-term care, management concepts, and finance or accounting. The required courses are available through the Department of Public Health Sciences, for those interested applicants who have not taken such coursework prior to considering a career in a nursing home administrator. The Health Services Management Focus, in the Bachelor of Science degree in Health Services Management and Community Development, provides program majors with the course work required for AIT placement. Interested program majors may pursue the AIT requirements while completing their degree program. Additional information on the AIT is available through the Department of Public Health Sciences.

Upper Division Courses

PHS 308. Leadership in Self and Society (3). General Education Issues and Perspectives course. Examine factors influencing the effectiveness of individuals leading change, including values, conflict and power. Studies the human side of organizational change focusing on understanding how and why people react to change, and identifying opportunities for enhancing the effective implementation of change. Students reflect on their own leadership development and work in teams to recommend PH strategies for change in a project, community setting, or organization.

PHS 310. Understanding the U.S. Health Care System (3). General Education Issues and Perspectives course. The U.S. health care system has been described as a non-system. The social systems of any country are shaped by the prevailing social values of the country. The three major components of the U.S. health care system - public health, acute care, and continuing care - have evolved separately due to prevailing social values and the related political decisions unique to this country. Course provides an overview of the social, economical and political and their roles in shaping the form, function and finance of each of the three major sectors, emphasizing the problems inherent in such a fragmented system.

PHS 320. Overview of Health Services Delivery (3). For those who plan a career in the health care field, it is important that they have an understanding of the environment in which they will work. This course is designed to provide the student with an understanding of the context in which health care is delivered, how resources are allocated to, and within the system and how health care organizations function within the system.

PHS 323. Introduction to Epidemiology (3). This course introduces the students to the science and methodology of disease and risk surveillance in public health. It prevents the foundations and structures used to solve medical and environmental health problems in the community with a primary focus on the health status of individual populations and special populations as they relate to health promotion and disease prevention.

PHS 333. Organizational Behavior and Leadership in Health Organizations (3). This course is designed to familiarize students with the classic themes and perspectives from the field of organizational behavior. The course emphasizes the application of this material to leadership in health care through lecture, group and individual examination of the literature, analysis of case studies, and personal assessment.

PHS 342. Financing Health Care Services (3). Examines the principles of financial analysis and management used in health care institutions, which are most useful to non-financial personnel. Emphasizes understanding and application of general financial concepts to health setting; considers financial organization, sources of operating revenues, budgeting and cost allocation methods. Uses examples for various types of health service organizations.

PHS 344. The Role of Culture in Health and Health Care (3). This course uses a case study approach to examine the importance of culture in the way people define, react to, and treat illness, injury and health risks. Cultural beliefs and expectations influence the things we do to stay healthy, the way we feel about our bodies, the way we experience pain, the way we behave when we are sick, the actions we take to get help, and the providers from whom we seek care. Health-related customs may vary by such attributes as age, ethnicity, education, religion, income, dwelling place, and family traditions. When major cultural differences exist between patients and service providers, they can result in a host of adverse outcomes. PHS 344 reviews such cultural clashes and a variety of strategies for eliminating the negative consequences as they apply to the consumer.

PHS 352. Strategic Management on Health Services Organizations (3). To be an effective strategic manager in the health care arena, it is important to understand the scientific process of strategic planning and its role in decision-making. In this course, the five-stage scientific method of planning, Formulation, Conceptualization, Detailing, Implementation and Evaluation are critically examined by considering the various methodologies associated with each stage.

PHS 354. Health Politics (3). Examines how government policies affecting public health and medicine are created within legislatures, regulatory agencies, and courts through the actions of individuals and groups with vested interests. Uses critical case analysis and political profiling to deconstruct selected policy examples. Students learn skills and strategies for influencing policy development and implementation.

Health Services Management and Community Development majors must complete PHS 320, "Overview of Health Services Delivery" and at least six additional credit hours of core course work before taking any course at the 400 level.

PHS 403. Sole to Soul: Health Promotion in Action (3). This is a course designed to provide contemporary information regarding public and personal health challenges. These challenges include issues of violence, new threats from emerging infectious diseases, insights into chronic disease, and concerns over global health and the degradation of the environment. With these challenges comes the opportunity to assist students to become future "change" agents for health - in both personal health behaviors, and the larger realm of policy changes that can assist the global population as well. A key feature of this course is the Impact Health Activity, an activity that provides students the opportunity to actively engage in personal and community health programs and projects to promote positive individual and community health improvements. This course emphasizes understanding the role interpersonal communication, cultural values and psychosocial, socioeconomic, and political factors in promoting or hindering optimal health for individuals, communities and the environment.

PHS 421. Program Planning/Development in Health Services Organizations (3). Program Planning & Development introduces students to planning, development and evaluation of health programs through the use of lecture, group projects and individual presentations. Students will familiarize themselves with a variety of approaches available in the field of program planning. The course will emphasize the application of this material to the development of the program plan.

PHS 428. Health Care Organization (3). Covers issues of management, organization, and operations of health care organizations, stressing the unique character of health care delivery organizations. Emphasizes types of health organizations, leadership and managerial roles, organizational structures and dynamics, interactions with environments, and evaluation and planning.

Business Law 431. Legal Environment of Business (3). See Barton School of Business for course description.

PHS 443. Social Marketing (3). This course is an introduction to the field of social marketing as it is used to improve the health of the public. Students will examine the concept of social marketing and learn how to apply social marketing principles and techniques to health behavior change and improvement of public health practice. The course will include essential aspects of the social marketing process: the use of a consumer orientation to develop and market intervention techniques, audience analysis and segmentation strategies, the use of formative research in program design and pre-testing of intervention materials, channel analysis for devising distribution systems and promotional campaigns, the use of the marketing mix concept in the intervention planning and implementation, and evaluation techniques for social marketing campaigns. Students will also be introduced to the limitations, challenges and successes of social marketing.

PHS 448. Concepts of Quality (3). This course addresses the issues of quality assurance in health care institutions and not-for-profit organizations. An overview of the history and cur-
ment and Community Development (3). The class analyzes long term care in the U.S., addresses system and organizational aspects that affect organizational outcomes and quality of long term care services, and considers long term care policy and management issues. It explicitly applies a trajectory model of chronic illness, conceptualizing formal long term care services as one series of responses to chronic illnesses and disability.

PHS 460. Health Services Management Practicum (3). Provides an opportunity for an administrative field experience in the health care system. The student is introduced to the role requirements and responsibilities of a practicing health manager. Students may select, with the consent of the practicum coordinator, an internship in an appropriate health service organization. Practicum requires participation in a broad fieldwork component and completion project component and a written report of the experience.

PHS 461. Healthy Options for Communities: A Community-Based Practicum in Neighborhood Development (3). This course provides an intensive, structured and supervised community-based group practicum during which students will learn to apply community development theories and tools previously introduced in the HVS/C curriculum, while bringing real value to the local 'client' agency or group. The Community Outreach and Service Learning Center located in WSU's Southside Center will serve as the home base of the project's activity. The focus of the project will change with each offering, but will, in general, focus on one of the following: helping a community group identify its needs and assets, developing a plan and mobilizing community resources to respond to an identified problem, creating and launching an awareness campaign, collecting and analyzing data to document a specific community problem; facilitating a strategic planning process; establishing performance-based record keeping; or introducing culturally appropriate service alternatives. Each student will have the opportunity to sharpen his/her practice skills in a supportive yet challenging professional environment.

PHS 462. Quantitative Methods in Health Care (3). This class covers quantitative methods of analysis in health care. It includes concerns for employing such methods but focuses more on the interpretation of methods used by others. The class will include an introduction to certain statistical methods.

PHS 470. Capstone Seminar in Health Services Management and Community Development (3). This seminar is designed to provide students at or near the end of their program of study, with the opportunity to apply information, data from across the curriculum, to a series of multi-faceted issues and problem solving situations germane to professional practice in health services management and community development. Students from both program foci will assess and evaluate issues and concerns, which draw on the common core curriculum and on common ethical decision making situations. Students, whose course of study has emphasized health services management, will additionally evaluate issues and concerns, which integrate the program core with the knowledge and skills specific to a career in health services management. Students, whose course of study has emphasized community development, will additionally evaluate issues and concerns, which integrate the program core with the knowledge and skills specific to a career in health-related community development.

PHS 473. Health Economics (3). Being multidisciplinary in nature, the health care system may legitimately be described, explained, and evaluated by any one of a number of disciplines. Economics is a science that deals with the consequences of resource scarcity and is further specified as descriptive, explanatory, and evaluative economics. In this course, the problems of the health care system are examined through the lens of this economics perspective by exploring the application of economics theories, principles and concepts to the U.S. medical care system.

Course for Graduate/Undergraduate

PHS 643. Geographic Information Systems in Community Epidemiology (3). This skills-based course introduces a group of software tools used in health care, public health and many other professions to analyze and model spatial data. The powerful epidemiological tools provide mechanisms to track and map health and disease indicators, to explore clusters of risk factors and their relationships, and to better manage health care and social service resources. Properly applied, they illuminate community needs and promote efficient and effective program responses. Those who need to synthesize multiple information streams in their decision-making increasingly value GIS's outstanding integrative abilities. Furthermore, the resulting visual displays, with their ability to improve communications between researchers, administrators, government officials, and the public, are increasingly found in policy debates and educational forums.

PHS 660. Administrator-in-Training (AIT) Long-Term Care Practicum (3). Needs for health services will increase dramatically in the future because of the rising increase in the elderly population. A board range of services, including long-term care, is required to address the health care needs of the older population. The Administrator-in-Training (AIT) Practicum is an academic long-term care administrator-training program. The purpose of the AIT is the development of a professional competency and personal code of ethics for the field of long-term care administration. The course prepares students for the state nursing home administrator licensure examination. The 480 clock hour practicum is completed in a licensed long-term care facility, under the guidance of an approved preceptor.

PHS 663. Community Action Research (3). This course is one of a series of community epidemiology courses that focus on community assessment and development. Community action research is an applied, interdisciplinary field in which hands-on learning occurs while inviting participation of the target population to be studied. Although there are a number of types of action research, each includes three basic requirements: 1) the subject matter of the project are social practices that are potentially changeable (able to be improved); 2) the project spans through cycles of planning, acting (initiating an intervention), observing (collecting and analyzing data) and reflecting; and, 3) the project maintains collaborative activity between the researchers, those who engage in the social practice(s) of interest and those who are affected by it. The class will participate in face-to-face interviews of community residents as part of the planning process to identify social activities that our subjects define as being in need of improvement.

Please see the Graduate Catalog for courses numbered 800 and above.

School of Nursing (NURS)
The School of Nursing offers the Bachelor of Science in Nursing and the Master of Science in Nursing. For more information about the master's degree, refer to the WSU Graduate Catalog.

Bachelor of Science in Nursing
The Bachelor of Science in Nursing program is designed to prepare students for the practice of professional nursing. The graduate is prepared for beginning positions in nursing in any health care delivery system, for further study at the master and doctoral levels, and for advancement to nursing positions of increasing responsibility and leadership.

Students are admitted to the School of Nursing at the junior year after completing 38 hours of course work. Persons interested in the Bachelor of Science in Nursing may direct inquiries to: Nursing Counselor, School of Nursing, Wichita State University, Wichita, Kansas 67260-0341.

Preprofessional Curriculum
Students applying for admission to the School of Nursing must have completed the following courses. Students should consider taking 16 hours per semester or attending Summer Sessions.

Course ........................................... Hrs.
Basic Skills
MATH 111, 112 or 211 ................................ 3
ENGL 101, College English I ...................... 3
ENGL 102, College English II ...................... 3
COMM 111, Public Speaking ......................... 3

Humanities and Fine Arts
Fine Arts Appreciation ............................... 3
PHIL 103, 125, or 144 ................................ 3

Course in humanities other than philosophy 3

Social and Behavioral Sciences
PSY 111, General Psychology ........................ 3
PSY 334, Developmental Psychology .......... 3
SOC 111, Introduction to Sociology .............. 3

Natural Sciences and Mathematics
BIOL 220, Introduction to Microbiology (applies
as an Introductory General Education course for the BSN degree only) ........................................ 4
CHEM 103/111, General Chemistry ........................ 5

Other Prerequisites
BIO 223, Human Anatomy and Physiology .......................... 5
HS 331, Principles of Diet and Nutrition .................................. 3
HS 400, Introduction to Pathophysiology ................................. 4
CS 105, Introduction to Computers and Their Applications or NURS 531, Nursing and Computer Technology ................................. 4
Statistics with approval ................................................ 3
Electives
Upper-division philosophy/ethics ...................................... 3
Issues and Perspectives General Education course ..................... 3

LPN to BSN Progression Plan
The LPN to BSN plan offers advanced placement to licensed practical nurses seeking a Bachelor of Science in Nursing degree. Up to 10 hours of credit via examination can be applied to the degree. LPNs seeking admission must meet undergraduate admission requirements, be a graduate of a state-approved LPN education program, and have an active LPN license in Kansas, and have the equivalent of 1,000 hours of clinical practice as an LPN within the last year. Students seeking admission to this program should contact the School of Nursing.

RN to BSN Progression Plan
The RN to BSN plan offers advanced placement to registered nurses seeking a Bachelor of Science in Nursing degree. Twenty-five hours of retroactive credit or credit by exam in nursing courses can be applied to the degree. The RN to BSN curriculum follows the Kansas Nursing Articulation Plan.

Registered nurses must:
1. Submit verification of current license to practice as a registered nurse in Kansas
2. Submit official transcripts of college courses and records verifying completion of a nursing program.

Registered nurse students who have met admission requirements may obtain information from the School of Nursing regarding enrollment in the transition course, NURS 334, RN Bridge Course, and Advanced Placement by which they may validate 25 nursing credits at the upper-division level.

Professional Curriculum
The following course is in the School of Nursing are required for the Bachelor of Science in Nursing. A total of 124 hours of University credit is required for graduation.

Course ........................................... Hrs.
Semester 1
NURS 302, Intro to Nursing Practice ................................... 3
NURS 310, Primary Health Care ........................................ 4
NURS 520, Health Alterations I ......................................... 3
NURS 345, Health Assessment ........................................ 4
HS 301, Clinical Pharmacology ......................................... 3
Semester 2
NURS 325, Research in Nursing ........................................ 2
NURS 360, Secondary Care ........................................... 4
NURS 370, Health Alterations II ....................................... 5
NURS 420, Mental Health Nursing ..................................... 4
Semester 3
NURS 402, Leadership and Mgmt. in Nursing ....................... 2
NURS 410, Tertiary Care ............................................. 5
NURS 380, Maternal/Newborn Nursing ................................ 4
NURS 430, Nursing of Children (8 weeks) .......................... 4
Semester 4
NURS 450, Care Manager: Populations (11 weeks) ............... 3
NURS 470, Critical Care (11 weeks) .................................. 6
NURS 499, Clinical Capstone (5 weeks) ............................. 4

Electives
Upper-division philosophy/ethics ...................................... 3
Issues and Perspectives General Education course ..................... 3

Course ........................................... Hrs.
Prerequisite and General Elective Courses
Basic Skills
MATH 111, 112 or 211 .............................................. 3
ENGL 101, College English I ......................................... 3
ENGL 102, College English II ....................................... 3
COMM 111, Public Speaking ......................................... 3

Humanities and Fine Arts
Fine Arts Appreciation ............................................. 3
PHIL 100, 125, or 144 ............................................. 3
Course in humanities other than philosophy .......................... 3

Social and Behavioral Sciences
FSY 111, General Psychology ........................................ 3
FSY 334, Developmental Psychology ................................ 3
SOC 111, Introduction to Sociology .................................. 3

Natural Sciences and Mathematics
BIOL 220, Introduction to Microbiology (applies as an Introductory General Education course for the BSN degree only) .................. 4
CHEM 103/111, General Chemistry .................................. 5

Other Prerequisites
BIO 223, Human Anatomy and Physiology .......................... 5
Statistics with approval ............................................. 3
General electives .................................................. 13
Total ......................................................... 60

Upper-Division Requirements
Electives .......................... 6
Total ......................................................... 9

* Three hours of general or upper-division electives must be an
issue and Perspectives course to meet General Education require­ments.

Professional Curriculum
HS 301, Clinical Pharmacology ........................................ 3
NURS 325, Research * (fall only) .................................. 2
NURS 334, RN Bridge Course ....................................... 4
NURS 345, Health Assessment * (spring only) ....................... 4
NURS 456, Primary Prevention * (spring only) ....................... 2
NURS 461, Care Manager/RN* (fall only) ............................ 4
NURS 495, Clinical Capstone—RN ................................... 2
NURS 531, Nursing and Computer Technology ..................... 3
Career enhancement electives ....................................... 6
Total ......................................................... 30

Internet course
Upper-division nursing credits awarded retroactively on the basis of associate degree in nursing or credit by exam .................. 25
Total ......................................................... 124

Other Requirements
Uniforms are required for all clinical laboratory experiences. Students are required to provide their own transportation to and from health care agencies used for these experiences. Students are required to purchase professional liability insurance in the amount of $1 million per single claim/$3 million aggregate per year. The insurance must be renewed annually. Students must provide evidence of personal health insurance and evidence of a completed physical examination prior to clinical laboratory experiences each academic year. Additional costs for instructional materials, testing, and lab experiences may be required throughout the program. CPR certification is required. Information related to these requirements is available from the School of Nursing.

Upper-Division Courses
NURS 402, Introduction to Nursing Practice (II) This course provides an introduction to the discipline and scope of nursing as practiced in diverse settings. Dimensions of current and emerging nursing roles as they relate to legal, ethical, professional, and issues in the current and future health care system will be examined. Interaction skills related to individual and group communication will be emphasized. Corequisites: Semester 1 classes.
NURS 310. Primary Health Care (4). 3T; 6P. Focuses on teaching health promotion concepts and providing preventive care to the individual, family, and community. Introduces the nursing process as a problem-solving tool. Uses the technology lab and various primary care settings for clinical learning. Corequisites: Semester 1 classes.


NURS 334. RN Bridge Course (4). A Web-based course. Enhances the knowledge base of the RN-BSN student in leadership and management theory and application, issues in professional nursing, therapeutic communication, and nursing theory. Prerequisite: admission to WSU School of Nursing.

NURS 335. Transitions to Professional Nursing (2). Introduces the licensed practical nurse (LPN) to the study of nursing as a practice discipline and professional nursing roles. Emphasizes the nursing process and the self-care concept of nursing and its use in professional practice, education, and scholarship. Prerequisite: current license as an LPN in Kansas and admission to the School of Nursing.

NURS 345. Health Assessment (3). 3T; 3L. Emphasizes multiple methods of data collection relevant to the health status of individuals and families across the lifespan. Focuses on holistic assessment of individuals and families from diverse populations. Corequisites: Semester 1 classes.

NURS 350. Workshops in Nursing (1-4). Intensive study of special topics related to nursing practice, education, or research. Open to non-majors.

NURS 360. Secondary Care (4). 1SF; 4L. Clinical course emphasizes care for patients with acute illness and/or acute complications of chronic illness in secondary care settings. Focuses on the application of therapeutic interventions to maximize health potential in individuals from the young adult to the frail elderly. Prerequisites: Semester 1 courses. Corequisites: Semester 2 courses.

NURS 370. Health Allocations II (5). Emphasizes health alterations and chronic conditions of adults. Studies interventions which enhance the quality of life for adults with illness and chronic health alterations. Prerequisites: Semester 1 courses. Corequisites: Semester 2 courses.


NURS 402. Leadership and Management in Nursing (2). Explores leading and managing as essential components of professional nursing practice. Examines the implication of ethical, legal, and economic issues as they impact nursing practice. Prerequisites: Semester 1 & 2 courses. Co-requisites: Semester 3 courses.

NURS 404. Survival Skills for Health Care Professionals (2). Focuses on specific skills and issues related to professionals surviving and thriving in today's health care climate. Examines and identifies sources of stress, conflict, and professional dissatisfaction. Addresses conflict resolution; personal health promotion; how to cope with organizational change; ways to adapt to economic, ethical, and political issues; assertive communication; stress-reducing strategies; and ways to find professional satisfaction in less than satisfactory circumstances. Emphasizes adopting and promoting life styles conducive to optimal health, health care background recommended.

NURS 410. Tertiary Care (5). 1SF. Clinical course emphasizes patient care management of young adult to frail elderly individuals with complex health problems. Focuses on therapeutic interventions used to attain, maintain, or regain health within clients' existing capabilities in a tertiary care setting. Prerequisites: Semester 2 courses. Co-requisites: Semester 3 courses.

NURS 420. Mental Health Nursing (4). 4T; 12P. Studies mental health nursing with clinical applications in community and hospital settings. Focuses on nursing care of clients across the lifespan who have mental illness. Prerequisites: Semester 1 courses. Co-requisites: Semester 2 courses.

NURS 425-472. Special Projects in Nursing (1-6). Elective. Individual study of selected topics, didactic and/or clinical designed to enhance the student's knowledge base and competencies in nursing practice. Repeatable. Prerequisite: school consent.


NURS 431. Perioperative Clinical Management: Work-study (5). 2T; 9P. Elective. Lecture/practical course; examines the nursing needs of individuals in small groups that have various health problems requiring surgery. Focuses on the expansion of the nursing student's power to perform deliberate actions for the benefit and well-being of others in all phases of the surgical process (before, during, and after). Emphasizes the nursing student's acquisition of clinical management skills in all phases of the surgical process. Prerequisites: NURS 310, 320, 345, 360, 370, 390, or completion of 30 hours of a professional nursing program.

NURS 450. Care Manager: Care of Populations (3). 2ST; 5SP. Explores the role of the professional nurse in a population-based setting. Major component is completion of an intervention plan based on a community assessment. Intergal components are public health nursing, care functions, and care coordination principles for clients along the continuum of care. Examines issues related to professional nursing. Prerequisite: Semester 3 courses. Corequisites: Semester 4 courses.

NURS 455. Primary Prevention (2). A Web-based course. For RN students. Focuses on health promotion concepts to enhance wellness of individuals, families, and communities. Emphasizes public health concepts. Prerequisite: admission to School of Nursing.

NURS 461. Care Manager-RN (4). Web-based course. Explores the role of the professional nurse in the community setting. Students select an area of focus for community nursing enhancement and complete a community assessment project. Includes topics related to management and financing implications. Prerequisite: admission to School of Nursing.

NURS 470. Critical Care (6). 3SF; 18P. Emphasizes the preparation of the nurse for critically ill clients across the lifespan. Focuses on complex nursing interventions and clinical decision making. Prerequisites: Semester 3 courses. Co-requisites: Semester 4 courses.

NURS 481. Cooperative Education Field Study (1-6). A field placement which integrates course work with a planned supervised professional experience designed to complement and enhance the student's professional program. Individual programs must be formulated in consultation with an approved faculty sponsor and cooperative education coordinator. Students may follow one of two scheduling patterns: parallel, enrolling concurrently in a minimum of 8 hours of course work in addition to their Co-op assignment, or alternating, working full time one semester and part time in a field study and returning to full school enrollment the following semester; such students need not be concurrently enrolled in any other course. Prerequisites: successful completion of the freshman year and satisfactory academic standing prior to the first job assignment. May be repeatable for credit.

NURS 495. Clinical Capstone-RN (3). 9SP. Enhances the registered nurse's skills in the community and other settings. Provides opportunity to perform therapeutic nursing interventions in student-selected settings. Prerequisites: all required RN-BSN courses.

NURS 499. Clinical Capstone (3). 3SP. (5 weeks). An intensive clinical experience practicing full time with a preceptor in a primary, secondary, or tertiary care setting to enhance socialization into the professional nursing role. Students focus on a selected area of practice within the current health care environment. Prerequisites: Semester 3 courses and NURS 450 and 470.

Courses for Graduate/Undergraduate Credit

NURS 585. Directed Study in Nursing (1-4). Elective. Individual study of the various aspects and/or problems of parti-
NURS 506. Transcultural Nursing (3). Transcultural nursing is the provision of nursing care sensitive to the needs of individuals, families, and groups. Since health and illness are strongly influenced by an individual's cultural background, an awareness of the cultural aspects of lifestyle, health beliefs, and health practices enhance nursing assessment and care. Course examines the cultural influences on health and illness in a variety of groups, emphasizing developing more sensitive and effective nursing care. Prerequisites: admission to School of Nursing or instructor's consent.

NURS 530. Concepts of Loss (3). Elective. Strategies for helping clients and families cope with such aspects of the life span as death and dying. Emphasizes grief and mourning. Open to non-nursing majors.

NURS 531. Nursing and Computer Technology (3). Focuses on basic terminology and use of computer software for nursing education, practice, and administration. Opportunity for hands-on experience with microcomputers. Prerequisite: admission to the nursing program or instructor's consent. Previous knowledge of computers or computer technology is not required.

NURS 543. Women and Health Care (3). Cross-listed as HPRS 543. Examines the historical development of the women's health movement, focuses on current issues relevant to women and health care, and explores the roles of women in the health care system and as consumers of health care. Examines self-care practices of women and explores ways to promote positive health practices. Open to non-nursing majors.

NURS 566. Perspectives on Self-Help Groups (3). Cross-listed as PSY 566 and SCWK 566. Provides an interactive format that constitutes a community resource for health and human service professionals and promotes an interdisciplinary understanding of the nature and diversity of self-help groups for persons with virtually any health problem or personal issue. Reviews contemporary theory and research, exploring the attractiveness and effectiveness of self-help groups. Focuses on issues, resources, and methods of support group membership, and development of self-help groups in community settings.

NURS 700. Assessment of Pediatric and Adolescent Clients (3). A theoretical and clinical laboratory experience; students focus on the assessment of pediatric and adolescent clients. Open admission to RN and graduate students.

NURS 701. Advanced Health Assessment (2). Designed to assist students to refine history-taking, psychosocial assessment, and physical assessment skills. Focuses on assessment of individuals throughout the life span. Emphasizes detailed health history-taking, differentiation, interpretation, and documentation of normal and abnormal findings. Includes lecture, discussion and demonstration of history-taking, and an integrated physical assessment. Prerequisite: admission to graduate nursing program. May be taken concurrently with or prior to NURS 702.

NURS 702. Advanced Health Assessment Laboratory (1). Companion course for NURS 701. Applies history-taking and assessment skills within a laboratory setting. Emphasizes differentiation, interpretation, and documentation of normal and abnormal findings. Requires a complete history and physical examination of a client. Prerequisite: admission to graduate nursing program. May be taken concurrently with, or within one year of completion of, NURS 701.

NURS 703. Scientific Inquiry I (3). Emphasizes the role of theory in scientific inquiry in nursing. Traces the evolution of nursing theory and explores the historical development of nursing theory and nursing research. Adapts to curriculum development and research, and explores the role of theory in nursing research. Prerequisites: admission to graduate nursing program.

NURS 704. Health Maintenance of the School-Age Child (3). Examines and applies major theories, clinical concepts, and research studies related to school health nursing. Open to RN and graduate students.

NURS 705. Scientific Inquiry II (3). Builds on NURS 703. Discusses the research process in relationship to concepts, frameworks, and theories. Explores various methodological approaches to research. Emphasizes the processing of research in a preliminary proposal related to student's practice area. Prerequisite: NURS 703 or departmental consent and admission to graduate nursing program.

NURS 706. Organization and Management of the School Health Program (3). Examines and applies concepts of organizational management to the school health delivery system. Focuses on the economic, political, and social factors which influence the school health delivery system. Open to RN and graduate students.

NURS 707. Alternative and Complementary Health Care (3). Examines the theoretical and empirical basis for various alternative and complementary modalities. Includes an exploration of issues involved with the use of specific modalities within today's health care environment. Research-based discussion focuses on how to best prepare the health care professional to provide guidance to a client and the family to best achieve a physiological, mental, emotional, and spiritual state most consistent with therapeutic interventions. Emphasizes the total evaluation and support of health influencing lifestyle, environment, culture, and other cognitive, sensory, and affective factors. Open to non-nursing majors.

NURS 708. School Nurse Practicum (2). An intensive clinical experience; students analyze, design, implement, and evaluate nursing systems to promote the health of individuals in the school health delivery system and the broader community system. Open to RN and graduate students.

NURS 713. Advanced Health Assessment of the Neonate (4). A developmental and systematic approach to the advanced assessment of physiological, psychological, sociocultural, and developmental aspects of the fetus, mother in the prenatal period, and the neonate is discussed. Builds on basic assessment skills and emphasizes perinatal, genetic, and embryologic factors impacting neonatal development. Explores ways to assess the pregnant woman for problems, the use of special diagnostic tests, and the assessment of the neonate. Requires 40 laboratory/clinical hours, providing opportunities to implement various assessment and diagnostic procedures, complete health histories, perform complete physical examinations, and complete a perinatal history. Prerequisite: admission to NNP track or department consent.

NURS 715. Advanced Nursing Practice: Roles and Issues (3). Designed for students preparing for advanced practice. Discusses historical development of advanced practice role: the ethical, legal, political, and economic issues such as role and current trends and future directions. Focuses on issues ranging from concerns within the local practice setting to national policy issues related to advanced nursing practice. Prerequisite: admission to graduate nursing program.

NURS 718. Advanced Technologies (3). Focuses on the application of clinical skills and interpretation of technologies utilized in a variety of clinical settings. Nurse practitioner students practice these skills in laboratory and/or clinical settings. Prerequisite: admission to one of the NP options and departmental consent. Enrollment is limited.

NURS 720. Human Lactation (2-3). For the graduate student preparing for practice as a lactation consultant. Provides an in-depth focus on the anatomical and physiological basis of lactation and breastfeeding. Explores factors that impact maintenance of health during lactation and clinical decisions for disease prevention. Addresses preparation for lactation certification. Students work on case studies, develop a paper for publication, and take a final examination via the Internet. Open to non-nursing majors. Prerequisite: admission to graduate program.

NURS 726. Common Dermatological Conditions in Primary Care (1-3). Interactive online course guides student through an instructional program with a profile of common dermatological conditions encountered in primary care. Information is presented in brief case scenarios; student identifies the condition. Resource links are available for in-depth study of each condition. For clinical use, patient education brochures are provided. Cases give the didactic information needed to make clinical decisions. Prerequisite: senior role or admission to the Graduate School of instructor's consent.

NURS 727. Low Back Pain (1-3). Interactive online course guides students through an instructional program based on the low back pain guidelines from the Agency for Health Care Policy and Research. Case study format stimulates critical thinking. Linked information gives information needed to make clinical decisions. Prerequisite: senior role or admission to the Graduate School or instructor's consent.
NURS 731. Psychopharmacology (3). Basic brain biology, brain disorders and psychopharmacology are reviewed as a basis for assessment and administration of psychopharmacologic medications and education of clients. Prerequisite: admission to Graduate Program.

NURS 733. Diabetes Mellitus Nursing (3). Exploration of clinical theories; identifies and studies appropriate nursing systems for clients with diabetes mellitus. Emphasizes attaining and maintaining optimal levels of functioning and the psychological adjustment of the client and family to a potentially devastating disease. Open to non-nursing majors.

NURS 734. Diabetes Mellitus Nursing Practicum (3). An intensive clinical experience; the student studies, designs, and implements nursing systems for individuals or groups in the area of diabetes mellitus nursing management. A weekly one-hour seminar accompanies the practicum. Open to non-nursing majors.

NURS 750. Workshops in Nursing (1-6). An opportunity for intensive study of special topics related to nursing practice, education, or research. Open to non-nursing majors.

NURS 757. Clinical Teaching Strategies (3). Explores alternative teaching strategies for the clinical educator to accommodate the changing health care scene. Discusses clinical teaching methods. A clinical rotation plan accompanying clinical evaluation tool is constructed after the student, subject, and setting are delineated. Investigates roles of the educator in teaching clinically.


NURS 756. Health Care Information Systems Practicum (3). Provides an individualized opportunity to apply the concept/theories of information systems to a health care setting. Includes analyzing existing information programs, identifying applications for automation, and undertaking small-scale development efforts. Prerequisite or co-requisite: NURS 755.

NURS 777. Pathophysiology of the Neonate (3). Uses concepts of embryology, neonatal physiology, and pathophysiology to provide an in-depth study of normal functioning and alteration of normal physiological functioning in cells, tissues, organs, and organ systems. Alterations form the basis for understanding a variety of pathophysiological conditions and the manifestations and impact of abnormal physiological functioning on neonates. Addresses both generalized processes and major system dysfunctions. Prerequisite: admission to NNP track or department consent.

NURS 781. Pathophysiology for Acute and Critical Care (3). Examines pathophysiological concepts relevant to acute and critical care nursing practice. Explores the scientific knowledge base for selected clinical problems in acute care, and the relationship to clinical decision making. Prerequisite: admission to graduate program.

NURS 783. Assessment in Psychiatric Mental Health Nursing (3). For the student preparing for advanced practice in psychiatric mental health nursing. Explores current diagnostic issues in psychiatric nursing practice. Emphasizes application of current biological, psychological, social, and other relevant theories and knowledge within the nursing and related fields to the assessment and planning of interventions for psychiatric clients. Prerequisite: Admission to Graduate Program.

NURS 786. Advanced Health Assessment Practicum (2). A concentrated assessment practicum focusing on application of knowledge from advanced health assessment courses. Students apply history-taking and assessment skills in a specified setting. Emphasizes differentiation, interpretation, and documentation of normal and abnormal findings. Graded S/U. Prerequisite: NURS 701, 702, and departmental consent and admission to one of the NP options.

NURS 798. Pharmacology for the Neonate (3). Discusses pharmacological agents used in the management of neonates. Reviews pharmacokinetic principles and applies them to the use of drugs in the level II or III NICU. Explores the clinical use of drugs in the management of specific illnesses of the neonate. Stresses legal considerations for the Advanced Practice Nurse. Prerequisites: admission to NNP option or departmental consent.

NURS 799. Directed Readings in Nursing (1-6). Students engage in critical search of the literature in areas related to the profession and practice of nursing. Prerequisites: departmental consent.

Please see the Graduate Catalog for courses numbered 300 and above.

The following abbreviations are used in the course descriptions: S stands for theory, L for laboratory, and P for practical. 4T means 4 hours of theory and 2 hours of lab. 1P means 1 hour of practical per week.
Bachelor of Arts degrees are offered in anthropology, biological sciences, chemistry, communication, communicative disorders and sciences, computer science, economics, English, geology, history, mathematics, modern and classical languages and literatures (French, Latin, and Spanish), philosophy, physics, political science, psychology, social work, sociology, and women's studies. Concentrations in ethnic studies, geography, German, gerontology, and religion may be designed with the Bachelor of Arts Field Major or the Bachelor of General Studies degrees.

The Bachelor of Science is available in biological sciences, chemistry, computer science, criminal justice, geology, mathematics, and physics.

The Bachelor of General Studies requires breadth in distribution of coursework and allows for the development of areas of concentration which may be thematically or occupationally related. This degree is available through every college department.

Graduate

Graduate programs are offered through the Graduate School in many liberal arts and sciences areas. The Master of Arts (MA) may be earned in anthropology, communication (interdisciplinary), criminal justice, English, geology, history, psychology, social work, sociology, and Spanish. The Master of Science (MS) may be obtained in biological sciences, chemistry, computer science, and mathematics.

The Master of Computer Science (MCS) is awarded in computer science, the Master of Fine Arts (MFA) in creative writing, the Master of Arts in Liberal Studies (MALS) in interdisciplinary studies; the Master of Public Administration (MPA) in public administration and the Master of Social work in social work. The Doctor of Philosophy (PhD) degree is offered in chemistry, applied mathematics, and psychology—human factors and community/clinical.

For more information, consult the Wichita State University Graduate Catalog.

Policies

Admission

Students are admitted to Fairmount College of Liberal Arts and Sciences upon meeting the general admission requirements for Wichita State University and declaring one of three categories:

1. Degree-bound. These students enter with the intention of pursuing one of the degree programs offered by Fairmount College.

2. Degree-bound as an exploratory student. These students have not yet decided on a major area of study when they enter WSU.

3. Non-degree-bound. These students enroll in classes or programs for purposes other than achieving a degree.

See University admissions details in the introductory section of this Catalog.

Probation and Dismissal Standards

1. Students are placed on probation whenever their cumulative or WSU grade point averages fall below 2.000.
2. Probation is removed when the cumulative and WSU grade point averages reach the required 2.000 level.
3. Students continue on probation when they earn a 2.000 or better semester average but their cumulative or WSU grade point averages remain below 2.000.
4. Students on probation will not be academically dismissed unless they have attempted at least 12 hours after being placed on probation, failed to earn at least a 2.000 semester average, and if their cumulative or WSU grade point averages remain below 2.000.
5. At that point, probationary students will be dismissed.
6. When dismissed, students may re-enroll only with the permission of the University's Committee on Admissions and Exceptions.

Students who have been dismissed for academic reasons may seek readmission to the University by filing a petition—in writing—with Fairmount College's Admissions and Exceptions Committee. Fairmount College requires petitioners to meet with an academic advisor to prepare a written petition. Cases for readmission must be developed by the student after consultation with an advisor. The petition is then considered by the Fairmount College committee and forwarded to the University's committee for final action.

Because counseling and advanced planning require careful attention and much time, students must complete the petition at least ten days before the first day of enrollment in a semester.

Enrollment Limits

Students in good academic standing may enroll for a maximum of 19 hours during fall and spring semesters and a maximum of 12 hours during the summer session. Students wishing to enroll beyond these limits must request approval from an academic advisor in the LAS Advising Center.

Academic Advising

Academic advising is a sustained and comprehensive, developmental process which promotes progressive student responsibility, commitment to the pursuit of intellectual foundations, clarification of an appropriate major, disciplinary competence, academic success, and preparation for career advancement. Advising is coordinated through the LAS Advising Center for students who are degree bound, exploratory or non-degree bound.

Degree-Bound Students in Fairmount College Programs

Degree-bound students who have declared interest in any of Fairmount College's programs receive advising...
from department faculty. Students with early and sustained involvement in their major departments develop methods of inquiry, peer and mentoring relationships, and intellectual and social perspectives which deepen and enrich their Fairmount College experience and support their achievement and persistence. Students with interdisciplinary or preprofessional interests also benefit from contact with faculty advisors qualified to discuss educational programs leading to the exercise of civic and social responsibility, to the enjoyment of intellectual pursuits, and to the realization of career fulfillment.

Degree-Bound Exploratory Students
LAS Advising Center (LASAC) advisors help degree-bound exploratory students remain flexible while pursuing general education requirements so that they may transfer to any college within WSU once a major is declared. Students develop educational planning skills, remove academic deficiencies, develop effective college-level study skills and habits, choose an academic major, develop personalized academic and career/life plans, and complete part of the general education requirements. Each degree-bound student is assigned an academic advisor. When a student declares a major field of study, an immediate transfer occurs to the college that sponsors that program, and an advisor from the selected discipline is assigned. Exploratory students must declare a major or a degree preference within the first 48 hours of enrollment. Those students transferring 48 hours or more must declare a major or degree preference during the first semester of enrollment.

Non-degree-Bound Students
LASAC advisors provide non-degree-bound students the services designed to be responsive to their unique needs and interests, responsibilities, and learning styles. These may involve self-enrichment, job advancement, career change, skills updating, or professional certification. The non-degree-bound category includes college and high school guest students and high school concurrent enrollment students. The LASAC will connect a non-degree-bound student with an appropriate academic advisor upon request. Those students considering the possibility of transferring to degree programs at a later date should connect with specific college advising services as early as possible to assure the development of the best possible educational foundation.

The LASAC staff offers students assistance in becoming acquainted with departmental requirements, programs, and faculty, and assists with special advising needs and degree-completion procedures. In summary, they are a primary information resource for the University.

Application for Graduation
To ensure a close identification of each student with his or her department, the faculty of the department of a student's major or primary area of concentration provide academic advising. In addition to advising for preregistration and registration, the declared students' departmental undergraduate advisors will fill out a graduation plan with each student who has completed 90 credit hours. Completion of this senior form provides guidance to the student in meeting graduation requirements.

Students planning to receive the Bachelor of General Studies degree will declare their intention at least 30 hours before the degree is granted. A plan of study including the area of concentration should be initiated as soon as possible—but no later than 30 hours before the degree is granted—with the Bachelor of General Studies advisor in the primary department of interest (see Area of Concentration in Section XII on page 130). This plan will be submitted along with other graduation application materials to the LAS Advising Center.

Applications for graduation and degree cards may be obtained from the LAS Advising Center.

Assessment of Academic Programs
Fairmount College participates in a University-wide program to assess the effectivenss of all curricula and instruction within the University. Individual departments within Fairmount College have established assessment strategies which are shared with their majors. In most cases, assessment activities involving students occur in the final semester of enrollment before the degree is granted.

Cross-Listed Courses
Selected courses in the University curriculum are cross-listed because course content is suitable to more than one academic area. Every department or program offers cross-listed courses provides a separate catalog description. When enrolling in cross-listed courses, students—in consultation with their advisor—may select the listing under which they wish to receive credit, but credit may be earned under only one of the course listings.

Field Trips
Attendance on field trips is mandatory in any course that includes in its catalog description a statement that field trips are required or in which the instructor states that field trips are essential for earning credit. Absences are permitted only with the instructor's approval. Students may have credit withheld for a course if they do not complete the required field trips.

Credit for Life Experience
Fairmount College offers credit for life experience when a student's learning from life experiences duplicates the content of a course offered in the Catalog. The student meets with the faculty member authorized to teach that course to document the learning from that life experience. The faculty member certifies that the documentation supports the award of credit.

While some other universities fit college credit to the student's experience, Fairmount College (the only college at Wichita State to award such credit) requires that the learning from life experience fit the approved curriculum of the college. We are conservative in protecting the autonomy of the faculty and the goals of the curriculum. In keeping with these objectives, the faculty assist students in demonstrating mastery of the content of a class with means appropriate to the particular class.

Students who are authorized by faculty to develop a portfolio or other documentation to seek life experience credit must be admitted to Wichita State University and must pay a nonrefundable assessment fee in the Office of the Controller. Students will be advised of fees upon entering the program. The faculty member sends a memo authorizing the (ungraded) credit to the Fairmount College office. Credit is awarded and noted on the student's transcript.

Cooperative Education
Fairmount College participates in the Cooperative Education program which matches paid internships with undergraduate and graduate students who wish to combine their classroom studies with academically related employment. In LAS, a maximum of 12 hours of cooperative education credit may be applied to becalutare degree requirements.

Further information is available in the Cooperative Education office, 223 Grace Wilkie Hall, or the academic information section of the Catalog.

Certificate Programs
Certificate programs in Fairmount College are available to members of the community, to students who have already earned degrees, and to students pursuing degrees in Fairmount College or other degree-granting colleges. A certificate is awarded acknowledging a student's completion of a disciplinary or interdisciplinary focus consisting of courses which provide thematic coherence in a unique area of applied or theoretical work. Specific requirements for the following certificate programs may be reviewed in the departmental sections that follow:

- Applied Communication (graduate and undergraduate)—Elliot School of Communication
- Information Technology—Computer Science
- Corrections; Cross-Cultural Communication
- Forensic Criminology; Law Enforcement
- School of Community Affairs
- Film Studies—English
- Great Plains Studies (graduate and undergraduate)—Interdisciplinary Liberal Arts and Sciences
- Public Finance (graduate)—Hugo Wall School of Urban and Public Affairs
- Substance Abuse Counselor Certification
- Psychology
- Women's Studies—Women's Studies

Academic Honesty and Code of Conduct
The faculty of Fairmount College strongly endorses the statement on academic honesty appearing in the general information section of this Catalog and the Code of Conduct and appeals procedure outlined in the Student Handbook.
Requirements for Graduation

Bachelor of Arts, Bachelor of Science, and Bachelor of General Studies

The following Fairmont College requirements must be met in order for students to receive the Bachelor of Arts (BA), the Bachelor of Science (BS), or the Bachelor of General Studies (BGS) degrees from Fairmont College. Courses taken to fulfill these requirements also satisfy the University's general education distribution requirements. The requirements for the BA, BS, and BGS fulfill all University graduation requirements except the following:

1. Basic skills — The following courses must be completed in the first 48 Fairmont College hours with a grade of C or above:
   - ENGL 100 or 101 and 102, English Composition
   - COMM 111, Public Speaking
   - MATH 111, College Algebra, or MATH 131, Contemporary Math or higher-level math class
   - Upper-Division — at least 45 semester hours of credit in courses numbered 300 or above.
   - Residence — at least 30 semester hours of course credit at Wichita State. At least 24 of the last 30 semester hours or 50 of the last 60 semester hours must be completed at Wichita State.
   - Four-year institution — a minimum of 60 credit hours must be completed in a four-year degree-granting college or university.
   - D Grades — no students are allowed credit toward graduation for D grade work in excess of one-quarter of the total hours needed for the degree.

The Schedule of Courses produced each semester before enrollment outlines specific courses approved in each of the following categories:

I. Fine Arts and Humanities*. Candidates for the BA, BS, and BGS degrees must take 12 hours of courses with the following distribution: 1) one introductory course from a fine arts discipline listed below; 2) one introductory course from two different humanities disciplines listed below; plus 3) a further study course from the same discipline as one of the introductory courses or an Issues and Perspectives course in fine arts or humanities. BA and BGS candidates may take an additional 3 hours to complete the total of 27 required in humanities/fine arts and social sciences. This extra course may be from the major department.

Fine Arts: art history, dance (history), musicology, composition, theater; other approved discipline for an Issues and Perspectives class.

Humanities: communication (non-basic skills), English (non-basic skills), history, linguistics, modern and classical languages and literature, philosophy, religion, women's studies, other approved discipline for an Issues and Perspectives class.

II. Literature. All BA, BS, and BGS candidates must complete at least one course in English or foreign language literature. Inclusion of this course should be considered in general education course planning in humanities.

III. American Political System. All BA, BS, and BGS candidates must demonstrate proficiency in the field of the American political system and institutions by passing either HIST 131 or 132 (humanities) or POL S 121 (social sciences) or by passing an examination offered each semester by the history and political science departments. Inclusion of one of these three courses should be considered in general education course planning.

IV. Social and Behavioral Sciences*. Candidates for the BA and BGS degrees must take 12 to 15 hours in three different departments with the following distribution: 1) one introductory course from two different social and behavioral science disciplines listed below; plus 2) a further study course from the same discipline as one of the introductory courses or an Issues and Perspectives course in the social and behavioral sciences; 3) one or two additional courses may come from the student's major or from any other elective courses within social science departments of the college.

Candidates for the BS degree must take a minimum of three courses (9 hours) following the first two distributions above. Courses within the student's major may not apply to this University general education requirement.

V. Social and Behavioral Sciences anthropology, criminal justice, economics, ethnic studies, geography, political science, psychology, social work, sociology, other approved discipline for an Issues and Perspectives class.

Other Social and Behavioral Sciences for elective use: gerontology.

* A total of 27 hours must be taken in the fine arts/humanities and social and behavioral sciences disciplines by candidates for the BA and BGS degrees.

V. Natural Sciences and Mathematics. Candidates for the BA, BS, and BGS degrees who have completed at least two years of high school laboratory science classes (exclusive of general and physical science) must take a minimum of 9 hours of courses with the following distribution: 1) one introductory course from two different natural science disciplines listed below (one of which must be a biological science and the other a physical science); plus 2) a further study course from the same discipline as one of the introductory courses or an Issues and Perspectives course in natural sciences. One of the above courses must include a laboratory experience.

Candidates for the BA, BS, and BGS degrees who have not completed at least two years of high school laboratory science must take 12 hours following the minimum distribution given above. Should a fourth course be necessary to complete the 12 hours, this class may come from any of the elective disciplines indicated below.

Natural Sciences and Mathematics biology, chemistry, geology, physics, other approved discipline for an Issues and Perspectives class.

Other Natural Sciences and Mathematics for elective use: ANTH 101 and 106 (counts as biology); GEOG 201 and 235 (count as physical science).

VI. Students must complete at least one and not more than two Issues and Perspectives courses to fulfill University general education program requirements. In addition, courses within the student's major discipline do not count toward University general education program requirements.

VII. Foreign Languages. Candidates for any BA degree and for the BS degree in criminal justice must demonstrate proficiency at a level equivalent to 5 hours beyond the 112 course in one foreign language or equivalent to the completion of the 112 course in two foreign languages. This proficiency may be demonstrated in the following ways:

1. Students may successfully complete 111 and 112, plus 5 additional hours in one foreign language, or 111 and 112 in two foreign languages.

2. Other foreign language experience, or high school foreign language study at the rate of one high school unit for each college semester, may apply toward the required proficiency.

3. Students who have completed three or more years of one language in high school may fulfill the foreign language requirement by successfully completing a 3-hour intermediate-level class in the same language.

4. Students with English as their second language have met the college's foreign language requirement for a baccalaureate degree.

Language 210 classes, although approved to count towards humanities requirements in the University general education program, will not fulfill a humanities course requirement for Fairmont College students. Any language course from the 220 or above level will count as general education humanities credit if on the approved list of classes published in this Catalog.

Students with sufficient high school background in language study to merit placement in a Fairmont College language class beyond the 111 level may qualify for retroactive credit in language. Please see guidelines for retroactive credit outlined in the Modern and Classical Languages and Literatures departmental section of the Catalog.

A student who has credit in two years of a high school foreign language may enroll in 111 and 112 for credit without departmental consent.

A student who has credit in three or more years of high school foreign language may take 111 and 112 for credit only if departmental consent has been received in writing. Otherwise, a student who has credit in three or more years of a high school foreign language may enroll in any 200-level course for credit without departmental consent.

Candidates for the BS within the division of natural sciences and mathematics have no foreign language...
requirement unless it is required by the department. The BGS also has no foreign language requirement.

VIII. BA, BS Major. All specific departmental major courses and requirements are listed in the Catalog by departments. While the department controls its own requirements for the major, the following expectations apply to all majors:

1. A 2.000 grade point average is required in the major.
2. No more than 6 hours from the major may be used to satisfy Fairmount College distribution requirements.
3. Of the 45 hours of upper-division credit required for each degree, a minimum of 12 upper-division hours are required in the major or area of concentration.
4. No more than 45 hours in the major may be used for graduation with a BA degree, and no more than 50 hours in the major may be used for graduation with a BS degree.
5. The same hours cannot be used to satisfy requirements for two or more majors or minors or combination thereof.

IX. Combined Major. A BA degree with a combined major, consisting of 24 hours from one field of study and 12 hours from an allied field of study, may be designed with the assistance of the primary department's academic advisor. A minimum of 12 upper-division hours must be included in the combined major.

X. Field Major. Students may select a major that correlates three or more fields of study to receive a broad appreciation of the cultural and dynamic factors of human conduct. The selection of courses must be made with an advisor from the primary department of interest and with the dean's office approval. Although such a major cuts across departmental lines and is determined by the field of specific interest, the combination of courses must be acceptable to the college.

Thirty-six hours are required for the field major, with 18 hours in the major department, at least 9 in each of the two allied departments, and 9 in the third field.

XI. Minor. Minors are offered in all fields of study in which a major may be earned as well as in ethnic studies, geography, German, gerontology, linguistics and religion. The number of hours required for a minor is set by each department. A 2.000 minimum grade point average is required in the minor. Minors from other colleges are acceptable and must meet minimum requirements of those colleges.

XII. BGS: Area of Concentration. The Bachelor of General Studies degree allows students to design their own programs of study crossing departmental or even college lines. The BGS degree allows the student to become a generalist and may allow preprofessional or nontraditional career students greater flexibility in planning for their unique future.

With the assistance of the BGS advisor in the department of primary interest, each student pursuing a BGS degree will develop a plan of study which outlines an area of concentration incorporating a minimum of 33 hours. No fewer than 15 and no more than 21 of these hours will be taken in a "local" or primary department.

The remaining 12 to 18 hours must be divided between at least two other departments. Concentrations may cross departmental or college lines in that they may be thematically or occupationally related, but the first two departments of the area of concentration must be LAS.

A minimum of 12 upper-division hours must be included in the concentration.

BGS students are given an opportunity to summarize their academic and intellectual goals in an assessment essay.

Distribution requirements limit coursework to no more than 30 hours from one department, to no more than 60 hours in one division, and to no more than 30 out-of-college hours.

XII. Non-Liberal Arts and Sciences Courses. Students may count only 24 hours of non-liberal arts and sciences courses toward either the BA or BS degree. Thirty hours of non-liberal arts and sciences courses may count toward the BGS degree. Any non-liberal arts and sciences courses required by a major within Fairmount College will apply to LAS hours required for the degree.

Communicative Disorders and Sciences

Students desiring an emphasis in applied language study should see requirements and curriculum for a major in communicative disorders and sciences through Fairmount College listed in the College of Education section of the Catalog.

Special Preprofessional Programs

Advisors in the various preprofessional fields and closely related departments provide specific information regarding courses and requirements.

Pre-law

The Association of American Law Schools states that students interested in pursuing a law degree should get a broad undergraduate education that provides "comprehension and expression in words, critical understanding of the human institutions and values with which the law deals, and creative power in thinking." These qualities are to be achieved through disciplined study in fields of the student's choice. Requirements for the bachelor's degree provide students with both a general education and a concentration in a major field of study.

Law school admission requires completion of a baccalaureate degree. Many majors provide appropriate foundation for the study of law, and college advisors offer pre-law students assistance in contacting departments for academic advising.

Premedical Professions—Medicine, Dentistry, Optometry, Pharmacy, Veterinary Medicine, Podiatry, Chiropractic

Medical programs encourage students to obtain a broad education in addition to the prerequisite studies in the sciences. Preparation for a professional program should include courses that develop disciplined thinking, intelligent appreciation of values, and sympathetic understanding of society and human interaction. Students may choose to major in any field of interest in preparation for medical studies. The primary core of prerequisite courses necessary for admission to most professional schools includes one year each of English composition, math, biology, inorganic chemistry, organic chemistry, and physics.

Completion of a bachelor's degree is a general...
Admissions section is not included.

Preparation for Secondary Education

Students planning to teach in high school may pursue a Fairmont College degree program while preparing to meet State Board of Education requirements for secondary education licensure. Programs for secondary education are outlined in the College of Education section of the Catalog. Liberal arts and sciences majors form the base for many certified teaching fields, while the College of Education provides all professional education coursework required for licensure. For further details and information, contact a major department advisor in Fairmont College or a teaching field advisor in the College of Education.

Anthropology (ANTHR)

Anthropology offers perspectives on issues of the origins, history, and diversity of the dynamics of culture and behavior, people, and places, personal and community identity, origins, and the biological history of humankind in all of its manifestations in all times. Anthropology is holistic and explores psychological, biological, social, and cultural—including technological, economic, religious, political, and artistic aspects of human action.

Anthropologists examine the vast diversity of human cultures, striving to understand and appreciate the myriad ways of life that constitute alternative solutions to the universal problems of human existence. By combining the perspective of science and the humanities, archaeology, socio-cultural, linguistic, and biological anthropologists take an interdisciplinary evolutionary and humanistic approach to the study of human beings and human societies.

The department offers a broad range of courses for majors, minors, and general education requirements. The curriculum spans socio-cultural, archaeological, and biological emphases, but also includes complementary courses in medical, linguistic, and museum studies in anthropology. The coursework provides students with opportunities to learn about, appreciate, and understand the values and perspectives of people from cultural traditions other than their own and also addresses their ability to interact cross-culturally.

The program offers a Bachelor of Art (BA) degree major, an interdisciplinary field major, and a minor in anthropology. A BA in anthropology prepares students for a variety of professional careers in and outside anthropology. The minor effectively complements a diverse number of majors within Fairmont College and across colleges. Elective and general education courses in anthropology seek to broaden the student's Fairmont College experience by offering them an opportunity to appreciate the strength of human cultural and biological history and diversity through socio-cultural, bio-cultural, and cultural-historical perspectives to understanding the living world in the framework of its past and present circumstance.

Major. A major in anthropology consists of at least 30 semester hours, 9 semester hours of which must include ANTHR 101, Biological Anthropology; ANTHR 102, Cultural Anthropology; and ANTHR 103, Introduction to Archaeology. Students must also take an additional three courses (9 semester hours) including one upper-level biological anthropology course (chosen from ANTHR 306, 355, 357, 397R, and 600); one upper-level cultural anthropology course (chosen from ANTHR 303, 307, 312, 318, 327, 344, 361, 388, 506, 511, 515, 516, 522, 526, 530, and 542); and one upper-level archaeology course (chosen from ANTHR 305, 313, 335, 508, 511, 512, and 613). All majors must take a course in method and theory (ANTHR 647). An additional 9 semester hours of electives can be distributed across catalog listings for anthropology to match the student's interest in a particular sub-discipline(s).

A maximum of 6 semester hours of certain coursework in related departments can be counted toward an anthropology major if they meet discipline-specific requirements and if approved by a committee of the anthropology department faculty.

Minor. A minor in anthropology consists of 15 semester hours in anthropology (including at least 6 hours of upper-division work) chosen in consultation with the student's anthropology advisor. Students minoring in anthropology are encouraged to take ANTHR 101, 102, and 103.

Field Major. A field major in anthropology allows undergraduate students to combine studies from three separate departments. The anthropology field major consists of 18 credit hours in anthropology, including ANTHR 101, 102, 103, and at least 9 semester hours of upper-division coursework. To complete the field major, students must take 9 semester hours of related coursework in two departments other than anthropology. All anthropology and non-anthropology courses must be chosen in consultation with the student's anthropology advisor.

Lower-Division Courses

> ANTHR 100. Anthropology of American Culture (O). General education introductory course. Introduces the concept of culture and its role in shaping and patterning human behavior. Students learn to apply tools and methods of anthropology in studying the culture of the United States.

> ANTHR 101. Biological Anthropology (O). General education introductory course. Provides an introduction to the understanding of biological evolution and behavioral development of humans. Introduces the history and basic concepts of biological/evolutionary thought; genetics and cell biology; human origins; ecology; and culture, along with the types of data and modes of analysis currently used in biological anthropology. Formulates explanations of physical and cultural developments of human and non-human primates in the last 70 million years. Explores patterns of human variation in biological and behavioral traits among present-day populations and discusses current issues (e.g., the social and biological meaning of variations).

> ANTHR 102. Cultural Anthropology (O). General education introductory course. The meaning of culture, its significance for human beings, and its diverse forms among peoples of the world, past and present.

> ANTHR 103. Introduction to Archaeology (O). General education introductory course. Introduces the philosophy, theory, tools, and techniques of the practicing archaeologist. Illustrates the role or archaeology in understanding cultural change through time, and explains how archaeological method draws on natural science and humanities to demonstrate how we learn about past cultures from the material they left behind.

> ANTHR 106. Biological Anthropology Laboratory (O). Students collect and analyze data while learning to apply current techniques to the study of human and/or non-human primate skeletal, dental, and biological specimens. Prerequisite or corequisite: ANTHR 101.

> ANTHR 107. Cultural Anthropology Laboratory (O). Students participate in organizing, collecting, and analyzing data derived from cultural anthropological investigations. Prerequisite or corequisite: ANTHR 102.

> ANTHR 150. Workshop in Anthropology (1-3). Provides specialized instruction using a variable format in an anthropologically relevant subject. Repeatable for credit.

> ANTHR 165. The Blues Art and Culture (O). Cross-listed as MUS C 165. The blues is a uniquely American musical form that has made an immense contribution to world popular culture. The history of the blues is also the history of Black America from the late 19th century to the present day. Focuses on major blues artists, both rural and urban, to trace the history and development of the blues as a folk art form that expresses both the joy and the despair of the people who created it.

> ANTHR 200. Intercultural Relations (O). General education further study course. Examines anthropological perspectives on the contact of individuals and societies which have different cultural histories. Examples are drawn widely from varied contemporary contexts: family life, international business, health and health care, the movement of populations, education in formal and informal contexts, and cultural strategies for survival in the global village.

Upper-Division Courses

> ANTHR 301. World Cultures (O). General education further study course. Comparative case studies of the cultures of
existing societies of varying types, including non-literate peoples, Third World nations, and modern industrialized countries.

ANTHR 305. World Archaeology (3). General education further study course. Introduces the basic concepts, methods, techniques, and modes of analysis of scientific archaeology. These are applied to a series of problems of increasing complexity: the emergence of human culture, the development of domestic plants and animals, and the evolution of cities and complex societies.

ANTHR 307. Peoples of Africa (3). General education further study course. Describes and analyzes the culture areas of Africa south of the Sahara Desert from ethnographic and ethnographic sources.

ANTHR 312. Asia Pacific Cultures (3). General education further study course. Studies the cultures and nations in eastern Asia bordering the Pacific Ocean, focusing on historical background, cultural beliefs and practices, and the distinctive patterns of each.

ANTHR 313. Archaeology of East Asia (3). A broad survey of archaeology throughout eastern Asia from the early hominid fossils at Peking and Java to the development of Chinese and Southeast Asian civilizations. Emphasizes China (through the Han Dynasty), southeast Asia, and Australia/New Guinea. Includes recent archaeological finds of the Peoples Republic of China.

ANTHR 318. Psychological Anthropology (3). General education further study course. The relationship of individual psychology (personality, emotion, cognition), both normal and abnormal, to group membership and cultural context.

ANTHR 327. Magic, Witchcraft, and Religion (3). General education further study course. Cross-listed as REL 327. An examination of various concepts concerning the realm of the supernatural as held by various peoples around the world. Relates such religious beliefs and the resultant practices to the larger patterns of cultural beliefs and behaviors.

ANTHR 335. Archaeology of North America (3). General education further study course. A survey of the prehistoric cultures of North America north of Mexico from the earliest peopling of the continent to the time of European colonization.

ANTHR 344. Ecological Anthropology (3). General education further study course. Investigates the relationships of people both to their physical and sociocultural environments, including the effects of these relationships on economic activities, social organizations, and beliefs and behaviors emphasizing the evolutionary development of survival strategies.

ANTHR 347. History of Anthropology (3). An overview of the history of anthropology from the enlightenment through the middle of the 20th century. Emphasizes seminal events, theory, and contributions that shape the modern discipline of anthropology. Prerequisites: ANTHR 100 or 101 or 102 or 104.

ANTHR 350. Workshop in Anthropology (3). Focuses on anthropological topics. Repeatable for credit.

ANTHR 351. Linguistics and Foreign Languages (3). Cross-listed as MCLL 351 and LING 351. Introduces general linguistic principles as they apply specifically to the study, acquisition, and analysis of foreign languages offered as major concentrations at WSU (French, German, Latin, and Spanish). Introduces acoustic phonetics (narrow transcription of foreign languages) and principles of phonology; morphemes and principles of morphology; and syntax and semantics. Prerequisite: LING 151.

ANTHR 366. Human Variability and Adaptation (3). General education further study course. A critical examination of the biological aspects of contemporary human variation, stressing human adaptations. Prerequisite: ANTHR 101 or BIOL 210 or equivalent.

ANTHR 367. Law, Politics, and Society (3). Studies legal and political systems in non-Western societies. Includes the origin of the state, precocial law and politics, the impact of colonialism, and problems in state building.

ANTHR 388. Cognitive Anthropology (3). General education further study course. Concentrates on a trans-cultural comparison of the cognitive constructions of life-space, social reality and world view in foraging, agricultural, and industrial societies focusing on the socioculturally conditioned aspects of intellectual functioning and perceptually based behavior.

ANTHR 397. Topics in Anthropology (3). Studies current issues in anthropology. Content varies with interests of instructor. Consult current Schedule of Courses for topics.

ANTHR 398. Travel Seminar (1-4). An interdisciplinary travel seminar that allows a student to gain credit for the study of one of the following: culture, art, literature, architecture, politics, society, science, and economics while visiting historic places of interest. Utilizes the archaeological, biological, linguistic, and sociocultural perspectives to develop an understanding of overseas cultures. Prerequisite: departmental consent.

ANTHR 481. Cooperative Education in Anthropology (1-4). See ANTHR 281.

ANTHR 498. Readings in Anthropology (2-3). Repeatable up to 6 hours. Special problems in anthropology. Prerequisite: 12 hours of anthropology.

Courses for Graduate/Undergraduate Credit

ANTHR 502. Introduction to Archaeological Laboratory Techniques (1-3). Minimum of 3 hours. An introduction to the laboratory processing of archaeological materials. Direct experience in all phases of preparing excavated materials for analysis, including cleaning, restoring, preserving, numbering, and cataloging of ceramic and flinty artifacts and other remains. Prerequisite: ANTHR 365.

ANTHR 506. Peoples of the Pacific (3). General education further study course. A survey of the races, languages, and cultures of non-literate peoples of Polynesia, Micronesia, and Indonesia.

ANTHR 508. Ancient Civilizations of the Americas (3). General education further study course. A cultural survey of the Aztecs, Maya, and Incas. Prerequisite: instructor's consent.

ANTHR 511. The Indians of North America (3). General education further study course. A survey of tribal societies and native contemporaries north of Mexico from the prehistoric through the historic period. Prerequisite: ANTHR 102.

ANTHR 514. Anthropology of Aging (3). Cross-listed as GERON 514. An anthropological analysis of the latter stages of the life cycle with historical and cross-cultural perspectives.

ANTHR 515. China (3). General education further study course. An introduction to the people of China and aspects of their culture: economy, government, society, religion, and the arts. Historical attention on the many adjustments the Chinese made during the 20th century following political revolutions, industrialization, and expanding trade relations.

ANTHR 516. Japan: People and Culture (3). General education further study course. An introduction to the culture of Japan including its history and prehistory, aspects of traditional culture and 20th century Japan, its economy, politics and social organization.

ANTHR 519. Applying Anthropology (3). The application of anthropological knowledge in the solution of social problems in industry, public health, and public administration. Prerequisite: ANTHR 102.

ANTHR 522. Art and Culture (3). General education further study course. A survey of the visual and performing arts of non-Western peoples with special attention to their relationships in the cultural setting. Prerequisite: ANTHR 102.

ANTHR 526. Social Organization (3). A survey of the varieties of social organization among non-industrialized peoples throughout the world. Deals with family systems, kinship, residence patterns, and lineage, clan, and tribal organizations. Prerequisite: 6 hours of anthropology.

ANTHR 528. Medical Anthropology (3). General education further study course. Studies the health and behaviors of various human societies, especially in, but not limited to, those outside the western scientific tradition. Covers attitudes toward the etiology of disease, the techniques of healing, the use of curative drugs and other agents, the roles of healers and therapists, and the attitudes of the community toward the ill. A library or field research project is required. Prerequisite: 3 hours of nursing or 3 hours of anthropology or instructor's consent.

ANTHR 538. Early Man in the New World (3). A critical examination of facts and theories concerning early man in the New World from the peopling of the continent to the begin-
ANTHR 540. The Indians of the United States: Conquest and Survival (3). An anthropological inquiry into four centuries of cultural contact, conflict, resistance, and resurgence. Prerequisite: ANTHR 102 or instructor's consent.

ANTHR 542. Women In Other Cultures (3). Cross-listed as WOM S 542. Deals with the place of women in primitive and other non-Western societies, in various aspects of culture: political, economic, social, religious, domestic, intellectual, psychological, and aesthetic. Compares and contrasts societies in order to see how different kinds of roles for women are related to different kinds of societies.

ANTHR 555. Paleoanthropology and Human Paleontology (3). A detailed examination of human evolutionary history as evidenced by fossil remains and a survey of various interpretive explanations of the fossil record. Prerequisite: ANTHR 101 or BIOL 203 or equivalent.

ANTHR 557. Human Osteology (3). Deals with human skeletal and dental materials with applications to both physical anthropology and archaeology. Lecture and extensive laboratory sessions include bone and tooth identifications, measurement and analysis, and skeletal preservation and reconstruction. Individual projects are undertaken. Prerequisite: ANTHR 101 or equivalent.

ANTHR 559. Topics in Anthropology (3). Detailed study of topics in anthropology. Content varies with interest of instructor. Consult Schedule of Courses for current topic.

ANTHR 605. Biological Anthropology Laboratory Analysis (1-3). Students analyze archaeological materials, including ceramic, lithic, faunal, and vegetal remains according to accepted methods. Students learn to apply standard methods of identification and modes of interpretation to the materials to produce an acceptable archaeological report. Prerequisites: ANTHR 502 and instructor's consent.

ANTHR 606. Museum Methods (3). An introduction to museum techniques relating to the acquisition of collections and related procedures, such as accessioning, cataloging, documentation, presentation, and storage. Emphasizes current trends in museological philosophy concerning purpose, function, and relevance of museums, as well as career opportunities. Prerequisite: instructor's consent.

ANTHR 607. Museum Exhibition (3). Contemporary philosophy of exhibition design and the application of recent concepts to the planning and installation of an exhibit. Prerequisite: ANTHR 606 or instructor's consent.

ANTHR 609. Biological Anthropology Laboratory Analysis (1-3). Analyzes biological anthropology materials including human and non-human skeletal material of both contemporary or prehistoric origin according to standardized methods for recording and collecting data in biological anthropology. Learn methods of identification, analysis, and interpretation and prepare a standard technical report. Prerequisites: Anthropology 101, 106, 356, or 557.

> ANTHR 611. Southwestern Archaeology (3). General education further study course. A comprehensive survey of the prehistoric, historic, and living cultures of the American Southwest particularly emphasizing the cultural continuities and changes covering 11,000 years. Prerequisite: one introductory course in anthropology or departmental consent.

> ANTHR 612. Indians of the Great Plains (3). An investigation of the cultural dynamics of the Great Plains area from the protohistoric period to the present. Prerequisites: 6 hours of anthropology and departmental consent.

> ANTHR 613. Archaeology of the Great Plains (3). General education further study course. The archaeology of the Great Plains area from earliest evidence to the historic period. Prerequisite: one introductory course in anthropology or departmental consent.

ANTHR 647. Theories of Culture (3). A survey of the main theoretical movements in cultural anthropology, including both historical and contemporary schools of thought. Prerequisite: 6 hours of anthropology.

ANTHR 651. Language and Culture (3). Cross-listed as LING 551 and MCLL 651. An introduction to the major themes in the interactions of language and society and language and culture, including ethnography of communication, linguistic relativity, and determinism; types of language contact; the linguistic repertoire; and cross-cultural discourse analysis. Content may vary with instructor. Prerequisite: 3 hours of linguistics or MCLL 351 or 6 hours of anthropology.

ANTHR 667. English Syntax (3). Cross-listed as ENGL 667 and LIN 667. Examination of aspects of the structure of English and their relation to linguistic theory. Prerequisite: ENGL 315 or MCLL 577 or ANTHR 577 or instructor's consent.

ANTHR 690. Field Methods in Anthropology (3-4). A maximum of 6 hours can be counted as anthropology hours toward either degree. Instructs the student in archaeological and ethnological field methods through actual participation in a field research program. The project depends upon the specific Summer Session and varies from year to year. Prerequisite: instructor's consent.

ANTHR 736. Advanced Studies in Archaeology and Ethnohistory (3). Special area and theory problems in a historical approach to culture. Prerequisites: graduate standing and 6 hours of anthropology.

ANTHR 746. Advanced Studies in Cultural Anthropology (3). Entails an in-depth coverage of selected topics in cultural anthropology, including social structure, economic and political organization, religion, personality, arts and knowledge systems, and current research methods. Prerequisites: graduate standing and 6 hours of anthropology.

ANTHR 750. Workshop (1-4). Short-term courses focusing on anthropological problems. Prerequisite: instructor's consent.

ANTHR 756. Advanced Studies in Biological Anthropology (3). In-depth coverage of selected topics in biological anthropology, including the history of evolutionary thought, human variation, growth and development, population dynamics, paleoanthropology, and primatology. Focuses on current issues, method, and theory in biological anthropology. Prerequisites: graduate standing and 6 hours of anthropology (must include ANTHR 101 or instructor's consent).

ANTHR 776. Advanced Readings (0-3). Provides opportunities for additional student research and reading on concepts and topics covered in the core graduate courses, AntHR 736 (Advanced Studies in Archaeology and Ethnohistory), AntHR 746 (Advanced Studies in Cultural Anthropology), and AntHR 756 (Advanced Studies in Biological Anthropology). Repeatable up to six hours. Prerequisites: Full graduate standing, completion of one core course (AntHR 736, AntHR 746, or AntHR 756), and department consent.

ANTHR 781. Cooperative Education (1-4). Provides practical experience that complements the student's academic program. Requires consultation with and approval by an appropriate faculty sponsor. Offered Cr/No Cr only. Prerequisite: graduate status.

ANTHR 785. Introduction to Research (3). Research methodology in Anthropology, including bibliography, research design, and the philosophy of research. Prerequisites: Full graduate standing and completion of at least one of the following core courses: ANTHR 736, ANTHR 746, or ANTHR 756.

Please see the Graduate Catalog for courses numbered 800 and above.

Biological Sciences (BIOL)

The Department of Biological Sciences offers a broad and flexible curriculum leading to the Bachelor of Arts (BA), the Bachelor of Science (BS), the field major in biochemistry (BS), and the bachelor degree programs (BA and BS) to teach in secondary education. Students interested in an interdisciplinary program with a biological focus are encouraged to consider the Fairmount College field major (BA) or the Bachelor of General Studies (BGS) programs. All students who intend to pursue one of the programs within the Department of Biological Sciences should contact the department as early in their educational careers as possible for assignment to a faculty academic advisor. Candidates for all degrees are required to take the Field Achievement Test in Biology during the senior year and contribute
Major in Biological Sciences with Biological/Biomedical Emphasis. A major in biological sciences leading to the BA with a biological/biomedical emphasis requires a minimum of 30 semester hours of biological sciences coursework; up to 40 semester hours may be taken for credit. A major in biological sciences leading to the BS with a biological/biomedical emphasis requires a minimum of 40 semester hours of biological sciences coursework; up to 50 semester hours may be taken for credit. Candidates for either degree must complete BIOI 210, 211, 418, 419, 420; either BIOI 497 or 499; and one course chosen from the following: BIOI 502, 503, 523, 524, or 532. Candidates for either degree must also complete CHEM 111, 112, 331, and 532. Candidates for the BS degree must also complete PHYS 213 and 214.

Major in Biological Sciences with Ecological/Environmental/Organismal Emphasis. A major in biological sciences leading to the BA with an ecological/environmental/organismal emphasis requires 35 semester hours of biological sciences coursework. A major in biological sciences leading to the BS with an ecological/environmental/organismal emphasis requires 50 semester hours of biological sciences coursework. Candidates for either degree must complete BIOI 210, 211, 418, 419, 420; either BIOI 497 or 499; and one course chosen from the following: BIOI 502, 503, 523, 524, or 532. Candidates for the BA degree must also complete a minimum of 5 additional hours of courses chosen from among those approved for the ecological/environmental/organismal emphasis (see academic advisor or departmental offices for approved courses); CHEM 111, 112, and 531. Candidates for the BS degree must also complete 15 additional elective hours from biological sciences courses in consultation with a departmental advisor; CHEM 111, 112, and 531; and PHYS 213.

Minor in Biological Sciences. Candidates for a minor in biological sciences must complete BIOI 210, 211, and any two of the following: BIOI 418, 419, or 420; or one course chosen from the following: BIOI 502, 503, 523, 524, or 532.

Biochemistry Field Major. The departments of biological sciences and chemistry participate jointly in this program. Required courses are BIOI 210, 211, 419, and 420; CHEM 111, 112, 523, 531, 532, 662, 663, and 664; PHYS 213 and 214; and MATH 112 (or 111 and 123). Also required are BIOI (CHEM 666 and 669 (two enrollments); and 21 elective hours chosen in consultation with a biochemistry academic advisor.

Major in Biological Sciences: Secondary Education. This major allows for the completion of the requirements for a degree in biological sciences and the certification requirements to teach biology grades 6-12. Students selecting this option should work closely with the teacher education advisor. The major requires the completion of BIOI 210, 211, 330, 418, 419, 420; either BIOI 502 or 503; and either BIOI 523, 524, or 527. Also required are CHEM 111, 112, and 531; PHYS 213 and 502, GEOL 300; the professional education requirements for majors in science as outlined by the College of Education; and additional hours to complete the requirements for either the Bachelor of Arts or the Bachelor of Science with an emphasis in either Biological/Biomedical Biology or Ecological/Environmental/Organismal Biology.

Field Major (BA) or Bachelor of General Studies (BGS). Students interested in such interdisciplinary programs should consult with a departmental advisor early to design a curriculum with a focus in biological sciences that will satisfy Fairmount College requirements for these degrees.

Non-major Courses. The Department of Biological Sciences offers courses designed primarily to meet the needs of students in other departments. These are listed below as "Non-major Courses." These courses, or their equivalents at other institutions, cannot be used to satisfy the biological sciences coursework requirements for the major or the minor.

Non-major Courses
(May not be used to satisfy the requirements for the major)

Lower-Division Courses

> BIOI 103, Microbes and You (3). General education introductory course. Surveys general information about microbial physiology, biochemistry, and ecology that support more detailed discussion of interesting topics in food, medical, and environmental microbiology. Includes subjects of general interest and current newsworthy topics. Credit will not be given if the student has completed BHY 209, Introductory Microbiology, or ENVI 206, Microbiology. Recommended for general education requirements, but cannot be used for credit toward the major or minor in biological sciences.

> BIOI 106, The Human Organism (3). General education introductory course. Introduces the non-science major to certain biological principles as they relate to the human organism, provides biological information and an understanding of subjects which are relevant to the student's own well-being and role as a world citizen, and increases awareness of the human place in the biosphere. Concurrent or subsequent enrollment in BIOI 107 is recommended for students needing general education credit for a natural science laboratory experience. Credit for this course may not be applied toward the requirements for a major or minor in biological sciences. Only one of the following may be taken for credit: BIOI 104, 105G, 106 and/or 107. Students wishing to repeat BIOI 104 or 105G (no longer offered) should enroll in BIOI 106 and 107.

> BIOI 107, The Human Organism Laboratory (1). 2L General education introductory course. For the non-science major. Supplements and reinforces the material covered in BIOI 106 with a laboratory experience. Uses a hands-on approach and covers topics relevant to the students and their role in the biosphere. Includes cell structure, human organ systems, the role of microorganisms in our environment, nutrition, metabolism, genetics, and ecology. Requires no animal dissection. Credit for this course may not be applied toward the requirements for a major or minor in biological sciences. Only one of the following may be taken for credit: BIOI 104, 105G, 106, 107, 209, and/or 107. Students wishing to repeat BIOI 104 or 105G (no longer offered) should enroll in BIOI 106 and 107.

> BIOI 140, Topics in Biological Science (2-4). Selected offerings in the biological sciences for the non-science major. Consult Schedule of Courses for current offering. Credit for this course may not be applied toward the requirements for a major or minor in biological sciences.

> BIOI 220, Introduction to Microbiology (4). 3L. Provides an introduction to the microbial world. Introduces bacterial, fungal, protozoan, and viral parasites and their role in disease, and their importance in the industrial world. Focuses on microorganism structure, physiology, growth, metabolism, genetics, and disease. Credit earned in this course may not be applied toward the requirements for a major or minor in biological sciences. Students may not receive credit for both BIOI 120Q (no longer offered) and BIOI 220. Students wishing to repeat BIOI 120Q may enroll in this course. Prerequisite: CHEM 111 or 103 or 111.

BIOI 223, Human Anatomy and Physiology (5). 4H. 2L. Presents the structure and function of the major human body systems. Demonstrates the structure and function of certain systems further in the laboratory setting. For students majoring in programs other than biological sciences or biochemistry. Students who have completed BIOI 225 or 226 (both no longer offered) may not receive credit for prior enrollment in these courses and subsequent enrollment in BIOI 223. Students seeking to repeat BIOI 225 or 226 may enroll in this course, subject to the credit limitations indicated above. Prerequisite: CHEM 101 or 103 or 111.

Upper-Division Courses

> BIOI 309, Foundations of Human Heredity (3). General education general education course. Provides an introduction to the mechanisms and societal significance of development, transmission, and population genetics of humans. Draws attention to inborn errors of metabolism and development and the roles of genetic counseling and genetic engineering in their management. Designed for students majoring outside of the natural sciences and cannot carry credit toward a biological sciences major or minor.

> BIOI 310, Human Reproduction: Issues and Perspectives (3). General education general education course. Provides a comprehensive survey of the many biological aspects of reproduction. Covers structure and function of the reproductive system, as well as information on in vitro fertilization, fertility testing, contraception, population problems, AIDS, cancer, reproductive issues, ethical problems, and other concerns about the control of human reproduction. Prerequisite: any one of the following: BIOI 106, 210, or 223.
Courses for Graduate/Undergraduate Credit

BIOL 518. Biology of Aging (3). Cross-listed as GERON 518. An introduction to the phenomenon of aging, including a survey of age-related processes and mechanisms of senescence emphasizing humans. Students earning graduate credit produce a term paper based on the technical literature on a topic chosen in consultation with the instructor. Prerequisite: a basic course in biological sciences that satisfies general education requirements.

Major Courses
(Used to satisfy the requirements for the major)

Upper-Division Courses

BIOL 365. Introductory Plant Physiology (3). Introduces the physiological mechanisms which control higher plant functions. Includes a review of basic physiological principles; gas exchange; water absorption, transport and loss; organic nutrition and the process of photosynthesis and respiration, including variant mechanisms in plants adapted for particular environments; transport of organic nutrients; mineral assimilation and nutrition; and factors affecting the survival of higher plants. Emphasizing structure as it relates to function and the physical/chemical mechanisms involved in maintenance physiology. The laboratory emphasizes experimental techniques and approaches to investigations of plant physiological phenomena discussed in the lecture and the development of scientific writing skills. Prerequisites: BIOL 204 or 211 and CHEM 112.

BIOL 380. General Microbiology (3). 3R; 3L. Introduces the structure, function, systems, ecology, and population dynamics of microorganisms emphasizing prokaryotes. Prerequisites: BIOL 204 or 211 and CHEM 112.

BIOL 340. Special Topics in Biology (2-4). Selected offerings for undergraduate majors in the biological sciences. Consult Schedule of Courses for current offerings. Prerequisites: BIOL 204 or 211 and CHEM 112.

BIOL 418. General Ecology (4). 3R; 3L. Principles underlying the interrelationships of living organisms and their environment from the biosphere to the population level of organization. Some laboratory exercises and class projects conducted at local field sites. Prerequisites: BIOL 204 or 211 and CHEM 112.

BIOL 419. Genetics (4). 3R; 3L. The mechanisms of heredity and variation in animals, plants, and prokaryotes with a critical review of gene structure and function. Prerequisites: BIOL 204 or 211 and CHEM 112.

BIOL 420. Molecular Cell Biology (4). 3R; 2L. Concerned primarily with the molecular biology of eukaryotic cells. Covers individual cellular components (organelles) and processes includes the plasma membrane, mitochondrion and energy conversion, intracellular sorting, the cell nucleus and genetic mechanisms, control of gene expression, cell signalling, cell growth and division, cancer, and cellular mechanisms of development. Reviews and demonstrates current techniques and experimental approaches for studying cells. Prerequisites: BIOL 204 or 211 and CHEM 112.

BIOL 471. Wildlife Management (4). 3R; 3L. Presents both theoretical and practical principles of wildlife management. Includes wildlife legislation, ecological rules applicable to wildlife populations, procedures for habitat analysis and inventory, and wildlife restoration. Conduct laboratory exercises and class projects at local field sites. Emphasizes habitat analysis and restoration during the field portion. Prerequisite: BIOL 418.

BIOL 481. Cooperative Education (2-4). Course complements and enhances the student's academic program by providing an opportunity to apply knowledge gained through coursework to job-related situations. For information, contact the coordinator of undergraduate studies or the Cooperative Education program office. No more than 4 credit hours earned in BIOL 481 may be applied toward satisfying the requirements for a major in biological sciences. Prerequisite: applicant and cooperative education position approved by the departmental affairs committee. Offered CR/NC only.

BIOL 497. Biology Colloquium (1). S/U grade only. Research seminars presented by graduate students, faculty, and visiting researchers. Requires a written term paper on one of the presented topics. Repeatable once for credit. Prerequisites: two of the following—BIOL 418, 419, 420.

BIOL 498. Undergraduate Independent Reading (2-4). S/U grade only. Students perform library scholarship under the direct supervision of faculty and write a report. No more than 6 credit hours earned from BIOL 498, 499, or equivalent independent study courses may be applied toward departmental major graduation requirements. Prerequisites: at least 20 hours of biology coursework that satisfies the major requirements, instructor's consent, a Directed Independent Study Abstract form, and departmental consent.

BIOL 499. Undergraduate Research (2-4). S/U grade only. Students perform laboratory or field research under the direct supervision of faculty and write a report. No more than 6 credit hours earned from BIOL 498, 499, or equivalent independent study courses may be applied toward departmental major graduation requirements. Prerequisites: at least 20 hours of biology coursework that satisfies the major requirements, instructor's consent, a Directed Independent Study Abstract form, and departmental consent.

Courses for Graduate/Undergraduate Credit

BIOL 502. Vascular Plants (4). 2R; 4L. An introduction to the structure, reproduction, and evolution of the major groups of living and extinct vascular plants. Includes an introduction to flowering plant systematics. Students earning graduate credit perform a primary literature survey on a topic selected in consultation with the instructor and deliver a 30-minute oral presentation to the class. Prerequisites: BIOL 204 or 211 and CHEM 112.

BIOL 503. Taxonomy and Geography of Flowering Plants (4). An introduction to the principles and methods of plant taxonomy and to the study of the patterns of plant distribution and the origin of these patterns. Class time is divided among lectures, laboratories, and field work. Field trips throughout Sedgwick County and to the Flint and Chautauqua Hills provide an opportunity to collect specimens and to observe ecology and distribution of native species of flowering plants. Prerequisites: BIOL 204 or 211 and CHEM 112, or instructor's consent.

BIOL 523. Freshwater Invertebrates (4). 2R; 4L. Emphasizes the ecology, taxonomy, and form and function of free-living freshwater invertebrates. Half of the course deals with arthropods. Includes methods of collecting, culturing, and preserving specimens. Part of the course grade is based on a collec-
tion of invertebrates correctly prepared and identified. For graduate credit, students submit a term paper or a more extensive collection within a given taxon. Prerequisites: BIOL 204 and CHEM 112.

BIOL 524. Vertebrate Zoology (4). 3R; 4L. Evolution, distribution, systematics, natural history, and special characters of vertebrate animals. Students earning graduate credit produce a term paper based on the technical literature on a topic chosen in consultation with the instructor. Prerequisites: BIOL 204 or 211 and CHEM 112. BIOL 527 is also recommended.

BIOL 525. Introduction to Ecolology (4). 2R; 2L. An overview of concepts and methodology for conducting tests in the field of ecotology. Examines tests at the molecular, individual, and population level. Covers basic ecological assessments, such as Index of Biological Integrity, Index of Biological Well-Being, and Rapid Bioassessment Protocols; and toxicological protocols like acute and chronic bioassays, biomarkers, and modeling techniques using Quantitative Structure Activity Relationships. Recommended for students interested in learning about the applied methodology used in the rapidly evolving field of ecotology. Prerequisites: BIOL 418 or equivalent and CHEM 531 or equivalent, or instructor's permission.

BIOL 526. Endocrinology (4). 3R; 3L. The hormonal regulation of bodily functions is considered in representative vertebrate systems, including humans. Students enroll in both lecture and laboratory portions of class. Students earning graduate credit submit a term paper on a topic chosen in consultation with the instructor. Prerequisite: BIOL 204/211 and CHEM 112.

BIOL 527. Comparative Anatomy (6). 3R; 4L. An intensive study of representative chordates emphasizing vertebrate anatomy. Students earning graduate credit complete additional assignments chosen in consultation with the instructor, such as a term paper based on technical literature, dissection of additional animals, etc. Prerequisites: BIOL 204 or 211 and CHEM 112.

BIOL 528. Parasitology (4). 2R; 4L. The parasites of man and other vertebrate hosts. Students earning graduate credit produce a term paper based on the technical literature on a topic chosen in consultation with the instructor. Prerequisites: BIOL 204 or 211 and CHEM 112.

BIOL 530. Applied and Environmental Microbiology (5). A characterization of the roles of microbes in natural and man made environments. Discussions of microbial ecology and communities, interrelationships with higher organisms, bio-geochemical cycling, biotechnology, and bioremediation. Students earning graduate credit produce an additional research paper based on primary literature on a topic chosen in consultation with the instructor. Prerequisites: BIOL 204 or 211 and CHEM 112.

BIOL 532. Entomology (6). 3R; 4L. An introduction to the morphology, physiology, life cycles, behavior, ecology, and economic significance of insects. Students earning graduate credit produce a term paper based on the technical literature on a topic chosen in consultation with the instructor or developer proficiency in a specific taxon by performing an individual systems project. Prerequisites: BIOL 204 or 211 and CHEM 112.

BIOL 533. Mammalian Physiology (3). An organ systems approach to mammalian—primarily human—physiology. Emphasizes nerves and endocrine control systems and the coordination of body functions. Students earning graduate credit submit a term paper based upon library research on a topic in mammalian physiology chosen in consultation with the instructor. Prerequisites: BIOL 204 or 211 and CHEM 331, or instructor's consent.

BIOL 535. Mammalian Physiology Laboratory (2). 4L. An empirical approach to mammalian physiology. Students seeking graduate credit submit an additional laboratory report relating the results of a laboratory experiment to those found in the current technical literature. Prerequisites or corequisites: BIOL 534.

BIOL 540. Developmental Biology (4). 2R; 4L. Developmental processes in animals emphasizing vertebrates. Centered on the cell interactions controlling differentiation and morphogenesis. Students earning graduate credit complete additional assignments chosen in consultation with the instructor. Prerequisites: BIOL 204 or 211 and CHEM 112. BIOL 420 recommended.

BIOL 553. Ecological Risk Assessment (4). Risk assessment is the process of assigning magnitudes and probabilities to the adverse effects of human activities or natural catastrophes. It involves global climate change, habitat loss, and acid rain, deforestation, reduced biological diversity, and the ecological impacts of pesticides and toxic chemicals. It uses measurements, testing, and mathematical models to quantify the relationship between the initiating event and the effects. Course is an overview of the basic framework for conducting an Ecological Risk Assessment, and a discussion of individual case studies involving several important environmental issues. An introductory class for students interested in assessing the effects of various stressors on environmental health. Prerequisites: BIOL 418 or equivalent and CHEM 531 or equivalent, or instructor's consent.

BIOL 560. Plant Ecology (2). 2R; 2L. An examination of the relationship of plants to their environment at the organism, population, community, and ecosystem levels. For graduate credit, a student must prepare and present a thirty-minute lecture over one of the topics covered in this course. Prerequisites: BIOL 418 and CHEM 112 or instructor's consent.

BIOL 561. Plant Ecology Laboratory (2). Laboratory component of BIOL 560. Field trips are an integral part of the course. Emphasizes an experimental approach to plant ecology. For graduate credit, a student must present the results of the laboratory/project orally, as well as in writing. Prerequisite: prior or current enrollment in BIOL 560.

BIOL 572. Computer Methods in Biology (3). Includes mathematical modeling of biological systems, tools for recording and retrieving experimental results, computer-assisted instruc-
are required, as is an all-day Saturday field trip during spring migration through the Central Flyway, which includes south-central Kansas. Graduate students must write a term paper on an approved topic in avian biology. Prerequisites: BIOL 204 or 211 and CHEM 112, or instructor's consent.

BIOL 610. Topics in Botany (3-9). Selected offerings in botany. Consult the Schedule of Courses for current offerings. (5) Students wishing to enroll in courses not listed in the current Schedule must complete a Directed Independent Study Abstract form and obtain approval prior to enrollment. Students earning graduate credit produce a term paper based on the technical literature on a topic chosen in consultation with the instructor. Prerequisites: BIOL 204 or 211, CHEM 112 and instructor's consent.

BIOL 626. Reproductive Biology (3). Covers the basic organization and function of vertebrate reproductive systems. Includes current concepts and contemporary research from the molecular to the population level. Students earning graduate credit prepare a term paper based on the technical literature on a topic chosen in consultation with the instructor. Prerequisite: BIOL 420. BIOL 526 is strongly recommended.

BIOL 630. Behavioral Ecology (3). A study of the biological bases of social behavior, stressing the underlying evolutionary and ecological mechanisms. Lectures examine altruism and kin selection, kin recognition mechanisms, sexual behavior, sexual selection and mate choice, mating systems, and reproductive strategies from the perspective of natural selection. Students earning graduate credit write a term paper based on the technical literature and present this in a class seminar. Prerequisite: BIOL 418.

BIOL 640. Topics in Zoology (3-9). Selected offerings in zoology. Consult the Schedule of Courses for current offerings. (6) Students wishing to enroll in courses not listed in the current Schedule must complete a Directed Independent Study Abstract form and obtain approval prior to enrollment. Students earning graduate credit prepare a term paper based on the technical literature on a topic chosen in consultation with the instructor. Prerequisites: BIOL 204 or 211, CHEM 112 and instructor's consent.

BIOL 654. Pathogenic Microbiology (4, 2R-4L). An introduction to the important pathogenic microorganisms and their relationships to health and disease in humans. Students earning graduate credit prepare a term paper based on the technical literature on a topic chosen in consultation with the instructor. Prerequisite: BIOL 300.

BIOL 660. Topics in Microbiology (2-3). See BIOL 610. Prerequisites: BIOL 350 and instructor's consent.

BIOL 666. Special Topics in Biochemistry (3). Primarily for students who choose the biochemistry field major. Discusses a small number of current problems in biochemistry in depth. Requires reading published research papers in the field. Students earning graduate credit produce a term paper based on the technical literature on a topic chosen in consultation with the instructor. Prerequisites: BIOL 204 or 211, CHEM 662 and 665.

BIOL 669. Research in Biochemistry (2). Cross-listed as CHEM 669. S/U grade only. Primarily for students who choose the biochemistry field major. Requires participation in a biochemistry research project under the direction of a faculty member and a written report summarizing the results. May be repeated once for credit. Prerequisites: BIOL 620 or 500, CHEM 662 or 663, CHEM 664, and instructor's consent.

BIOL 702. Environmental Science I (5). 3R; 4L. Cross-listed as GEOL 702 and CHEM 702. Advanced theoretical and applied principles of the interdisciplinary study of environmental science. Includes chemical cycling, atmospheric chemistry, aquatic chemistry, and phase interactions. The laboratory portion addresses local environmental problems from a risk assessment perspective. BIOL 702 and 703 (or equivalent) are required for all graduate students in the master's of environmental science program. Prerequisite: acceptance into the master of environmental science program or instructor's consent.

BIOL 703. Environmental Science II (5). 3R; 4L. Cross-listed as GEOL 703 and CHEM 703. Advanced theoretical and applied principles of the interdisciplinary study of environmental science. Includes environmental chemical analysis, environmental toxicology, aquatic microbial biochemistry, environmental biochemistry, marine biology, chemical and hazardous waste chemistry. The laboratory portion addresses local environmental problems from a risk assessment perspective. BIOL 702 and 703 (or equivalent) are required for all graduate students in the master's of environmental science program. Prerequisite: BIOL 702 or instructor's consent.

BIOL 704. Environmental Science Colloquium (1). Cross-listed as GEOL 704 and CHEM 704. Students in the master's program in environmental science are required to enroll each semester (maximum 6 credit hours). Includes presentations by guest speakers and required readings for class discussion. May also include student involvement in environmentally related community groups and projects. Graded S/U only. May be repeated for up to four hours each semester.

BIOL 706. Environmental Science Internship (3-6). Cross-listed as GEOL 706 and CHEM 706. Students in the master's program in environmental science may gain interdisciplinary skills in environmental science by participating in applied and/or basic research and internship projects with local businesses, industry, or government agencies. Internship option is an alternative to thesis research for degree requirements. Enrollment in internship projects requires an approved proposal. Completion of an internship for graduation requires a formal oral presentation of the internship activity and a written report. Prerequisites: BIOL 702 and 703 or equivalent.

BIOL 710. Glycobiology (3). Introduction to glycoprotein biosynthesis, structure, and function. Covers the various roles of carbohydrates in modifying protein structure and function. Students earning graduate credit prepare a term paper based on the technical literature on a topic chosen in consultation with the instructor. Prerequisite: BIOL 420.

BIOL 720. Neurobiology (3). Basic course in contemporary neurobiology emphasizing learning and memory. Exploration of the current research literature covering all levels of organization from complex behavior to brain information processing pathways, neuronal cell biology, and molecular biology. Each student chooses a topic, completes a written report, and gives an oral presentation to the class. Graduate students do more reading in the primary neurobiology literature. Prerequisites: BIOL 420 and 534 or equivalents and instructor's consent.

BIOL 728. Cancer Biology (3). The basic mechanisms of carcinogenesis will be covered by discussing the control of normal and abnormal cell growth in several model systems. Students earning graduate credit will also submit a term paper dealing with a specific topic to be determined by discussion with the instructor. Prerequisite: BIOL 420.

BIOL 735. Aquatic Toxicology (4). 2R; 2L. The qualitative and quantitative study of the fate and effects of toxic agents in the aquatic environment. Class examines the concentrations or quantities of chemicals that occur in the aquatic environment and includes a detailed study of the transport, distribution, transformation, and ultimate fate of various environmentally important chemicals. Class is for undergraduate or graduate students interested in advanced training in toxicology. Prerequisites: BIOL 525 or equivalent and CHEM 531 or equivalent or instructor's consent.

BIOL 750. Biology Workshop (1-3).

BIOL 760. Experimental Molecular Biology (4). 2R; 6L. Introduces upper-level undergraduate and graduate students to molecular biology techniques. The methodology primarily involves the manipulation of DNA and the expression of genetic material in prokaryotic and eukaryotic systems. Prerequisite: BIOL 419 or 420.

BIOL 767. Mechanisms of Hormone Action (3). The mechanism of action of several hormones is described and used to illustrate the major intracellular signal transduction pathways. Includes growth hormone and insulin, sex steroid hormones, thyroid hormone, and prostaglandins. Graduates complete an oral presentation of a research paper in journal club format. Students earning graduate credit write a term paper describing in detail a hormone not described in class and its mechanism of action. Prerequisites: BIOL 420 and CHEM 662 or their equivalents, plus either BIOL 534 or 526 or their equivalents, and instructor's consent.

BIOL 771. Evolutionary Ecology (4). 3R; 2L. Presents a synthesis of basic principles in population genetics and ecology as a framework for the study of topics in evolutionary ecology. Emphasizes (1) the maintenance and structure of population level genetic variation; (2) mating structure and the evolutionary advantages of sex; (3) individual, kin, group selection; (4) population demographic structure; (5) population
regulation and dispersal; (6) life history strategies in heterogeneous environments; and (7) demographic and genetic covariance. Teaches basic techniques in population ecology on several short field trips throughout the semester. Prerequisite: BIOL 418, 419, or instructor's consent.

**BIOL 780. Molecular Genetics (3).** Studies the physicochemical nature of genetic material and the mechanisms of genetic regulation of metabolism. Students earning graduate credit produce a term paper and deliver a class seminar based on the technical literature on a topic chosen in consultation with the instructor. Prerequisite: BIOL 419 or 584.

**BIOL 786. Advanced Immunology (3).** Contemporary problems in immunologic research. Includes lectures, assigned readings, and reports. Students earning graduate credit produce a term paper based on the technical literature on a topic chosen in consultation with the instructor. Prerequisite: BIOL 590 and instructor's consent.

**BIOL 787. Departmental Seminar (1).** Forum for the weekly presentation and discussion of the ongoing research projects performed by departmental faculty, graduate students, and guest scientists from outside departments and institutions. All MS degree-bound graduate students are required to attend the seminar each semester and must enroll for credit during the two semesters in which they give presentations that are the basis for their grade. One of these presentations may be their thesis defense. Prerequisite: acceptance into MS program.

**BIOL 788. Biology Seminar (2-4).** Reviews of current research in biological sciences. Students earning graduate credit produce a term paper and deliver a class seminar based on a topic chosen in consultation with the instructor. No more than 4 credit hours earned in BIOL 788 may be applied toward completion of the departmental major requirements or the departmental Master of Science degree requirements.

Please see the Graduate Catalog for courses numbered 800 and above.

**Chemistry (CHEM)**
The chemistry department offers a broad and flexible curriculum leading to a variety of degrees and options: Bachelor of Science (BS) in chemistry; Bachelor of Science (BS) in chemistry-pre-med; Bachelor of Arts (BA) in chemistry; biochemistry major (BS), and chemistry/business field major (BS).

**Bachelor of Science in Chemistry**
This program requires CHEM 111, 112, 524, 532, 547, 548, 615, 616, and 661, 2 credit hours of 690, and their necessary prerequisites, including MATH 344 and PHYS 313, 314, 315, and 316, or their equivalents. An additional 4 credit hours of professional elective courses must be taken. Courses that will satisfy the professional elective requirement are (a) CHEM 601, 602, 605, 606, 663, 664, 666, 669, and 1 additional credit hour of 690; (b) mathematics courses with MATH 344 prerequisite or MATH 555; (c) physics courses with PHYS 314 prerequisite; (d) one academic year of German or French; and (e) other courses as approved by the Undergraduate Affairs Committee.

In agreement with the American Chemical Society Committee on Professional Training, the chemistry department strongly encourages students studying for the BS degree to select courses in computer science, economics, marketing, and business and to utilize every opportunity to develop competence in technical writing and oral communication.

The curriculum for the BS in chemistry is approved by the American Chemical Society for the professional training of chemists. Students completing the program receive certification from the American Chemical Society. Students should consult with an advisor for details.

**Bachelor of Science in Chemistry—Pre-medical**
Students in premedical, predental, pre-veterinary, pre-pharmacy, pre-optometry, or other pre-professional programs may desire this option for which the following courses are required: CHEM 514, 524, 532, 547, and 663 and their necessary prerequisites; MATH 144 or 242 and a one-year sequence of physics courses above 200; 6 additional credit hours of chemistry courses numbered above 500 (CHEM 605 is recommended); and 8 credit hours consisting of BIOL 210 and 211.

This program is designed for students not expecting to become professional chemists and therefore does not necessarily meet standards of certification by the American Chemical Society or entry requirements for graduate work in chemistry.

**Bachelor of Arts in Chemistry**
This degree requires CHEM 524, 532, 547, and 548 and the necessary prerequisites, including MATH 344 and one year of physics (PHYS 313, 314, 315, and 316) or their equivalents. Students with a substantial interest in the biological sciences may be able to satisfy the BA requirements by substituting CHEM 662 and 664, or CHEM 663, for CHEM 524 (then CHEM 523 is required) or by substituting CHEM 662 or 663 for CHEM 548. This degree requires foreign language (5 hours beyond 111-112 in one language or equivalent to 111-112 in two languages).

Students who meet the requirements of the BA program may be certified by the American Chemical Society. They may also take CHEM 514, 524, 547, 615, and 616 and 6 hours of professional development courses. Students planning to become teachers of chemistry should complete the Bachelor of Arts program.

**Biochemistry Field Major**
The departments of biological sciences and chemistry participate jointly in this program. Students selecting this major should seek the advice of one of the departmental chairpersons as early as possible. The required courses are: BIOL 210, 211, 419, and 420; CHEM 111, 112, 524, 532, 547, 663, and 664; PHYS 213 and 214; and MATH 112 (or 111 and 123). Also required are CHEM 660 and 669 (two enrollments), which are cross-listed in the Department of Biological Sciences, and 21 hours of biochemistry electives.

**Chemistry/Business Field Major**
The Charles M. Buess program in chemistry/business is designed for students who wish to pursue careers in chemical sales, management, advertising, and other related areas. This program requires 30 hours of business courses as follows: ACCT 210 and 220; ECON 201 and 202; B LAW 431; FIN 340; MGMT 360; and MKT 300, 405, and 608. In addition, approximately 30 hours of chemistry and mathematics are required: CHEM 111, 112, 523, 661 or 662, 531, 532, and 603 and MATH 144 or 242.

Students selecting this option should contact the chairperson of the Department of Chemistry as early as possible for advice.

**Minor.** The chemistry minor consists of at least 16 hours of chemistry courses and must include at least 6 hours from CHEM 514, 524, 532, 547, 615, and 616. A 2.000 GPA in chemistry is required.

**Advising.** All students pursuing one of the above degrees should consult closely with the Department of Chemistry in planning their program.

**Minimum Requirements—Chemistry Programs**

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<th>Bachelor of Science</th>
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<td>CHEM 111, 112</td>
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<td>CHEM 546, 548</td>
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</tr>
<tr>
<td>CHEM 547</td>
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<td>CHEM 615</td>
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<tr>
<td>CHEM 616</td>
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<tr>
<td>CHEM 661</td>
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<tr>
<td>CHEM 690</td>
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<tr>
<td>PHYS 313, 314, 315, 316</td>
<td>10</td>
</tr>
<tr>
<td>MATH 112, 242, 243, 234</td>
<td>18</td>
</tr>
<tr>
<td>Professional elective</td>
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</table>

**Typical Course Sequence**

**Freshman**

<table>
<thead>
<tr>
<th>Term</th>
<th>Course Name</th>
<th>Credits</th>
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<tbody>
<tr>
<td>First</td>
<td>CHEM 111, General Chemistry</td>
<td>5</td>
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<tr>
<td></td>
<td>MATH 112, Pre-calculus Mathematics</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>ENGL 101, College English I</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>COMM 111, Public Speaking</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>16</td>
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*Not needed if two years of high school algebra, one year of high school geometry, and one-half year of high school trigonometry taken.

<table>
<thead>
<tr>
<th>Second</th>
<th>Course Name</th>
<th>Credits</th>
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<tbody>
<tr>
<td>CHEM 112, General and Inorganic Chemistry</td>
<td>5</td>
<td></td>
</tr>
<tr>
<td>MATH 242, Calculus I</td>
<td>5</td>
<td></td>
</tr>
<tr>
<td>ENGL 102, College English II</td>
<td>3</td>
<td></td>
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<tr>
<td>HIST 131, or 132, History of the U.S.</td>
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<tr>
<td>Total</td>
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</table>
CHEM 523, 524 ........................................ 8
CHEM 531, 532 ........................................ 10
CHEM 662, 663 ........................................ 6
CHEM 500-800 (605 recommended) .................. 6
MATH 144 or 242 ........................................ 3-5
Physics (one year) ........................................ 10
BIOI 210, 211 ........................................... 8

Bachelor of Arts
Course Hrs.
CHEM 111, 112 ........................................ 10
CHEM 531, 532 ........................................ 10
CHEM 546, 548** ...................................... 6
CHEM 547 ................................................ 2
Physics (one year) ........................................ 10
MATH 112, 242, 243, 344 ............................. 18

*Combinations of CHEM 662, 663, and 664 may be substituted for CHEM 524 or 546 (see description above).

Biochemistry Field Major
Course Hrs.
CHEM 111, 112 ........................................ 10
CHEM 525 ................................................ 4
CHEM 531, 532 ........................................ 10
CHEM 662, 663 ........................................ 6
CHEM 664 ................................................ 3
CHEM (BioI.) 666 ........................................ 3
BIOI (BioI.) 669 ........................................ 3
BIOI 210, 211 ........................................... 8
BIOI 419 .................................................. 4
BIOI 420 .................................................. 4
MATH 112 or 111, 123 ................................. 5-6
PHYS 213, 214 ........................................... 10
Biochemistry electives ................................. 21

Chemistry/Business Field Major
Course Hrs.
CHEM 111, 112 ........................................ 10
CHEM 525 ................................................ 4
CHEM 531, 532 ........................................ 10
CHEM 661 or 662 ...................................... 3
CHEM 603 ................................................ 3
MATH 144 or 242 ...................................... 3-5
ACCT 210 and 220 ...................................... 6
ECON 201 and 202 ...................................... 6
MKT 300, 405, 608 ..................................... 9
FIN 340 .................................................. 3
MGMT 360 ............................................. 3
B LAW 431 ............................................... 3

All programs require additional courses to satisfy general education curriculum requirements and the graduation requirements in Fai-
mount College of Liberal Arts and Sciences.

Lower-Division Courses

>CHEM 101. The Science of Chemistry (3). General education introductory course. Teaches the basic concepts of chemistry that will aid in understanding the physical world. No attempt
to teach basic computational or laboratory skills instead emphasizes such concepts as atom and molecular theory, energy, structures, and theories regarding why reactions occur.

>CHEM 103. General Chemistry (3). 3R; 4L Lab fee. General education introductory course. A survey of inorganic, organic, nuclear, and biological chemistry. Recommended for the student who plans to take only one course in chemistry. Students who expect to major in the natural sciences should take the CHEM 111-112 sequence. Credit is not granted for both CHEM 103 and 111. Prerequisite: one year of high school algebra or MATH 011.

CHEM 110. Preparatory Chemistry (3). A general chemistry course for students who have not had adequate preparation in chemistry or physics. Enables students to improve their problem-solving skills and to briefly review mathematics relevant to general chemistry. Introduces the basic chemical concepts of atoms, molecules, chemical reactions, chemical equations, gas laws, and solutions. Credit is allowed in only one of the following: CHEM 103, 110, or 111. Prerequisites: one and a half units of high school algebra or MATH 011.

>CHEM 111. General Chemistry (3). 3R; 4L Lab fee. General education introductory course. An introduction to the general concepts of chemistry. Includes chemical stoichiometry, atomic and molecular structure, bonding, gas laws, states of matter, and chemical periodicity. CHEM 111-112 meets the needs of students who may wish to take more than one course in chemistry. Credit is allowed in only one of the following: CHEM 111, 110, or 110. Prerequisites: a college-level chemistry course such as CHEM 110, 101, or 103, or high school chemistry or physics and concurrent enrollment in MATH 111 or two units of high school algebra or MATH 011.

>CHEM 112. General and Inorganic Chemistry (3). 3R; 4L Lab fee. General education further study course. Continuation of CHEM 111. Includes thermodynamics, gaseous and ionic equilibria, kinetics, nuclear chemistry, electrochemistry, qualitative analysis, and an introduction to theories of bonding. Prerequisite: CHEM 111 with a grade of C or better.

CHEM 301. Issues and Perspectives in Chemistry (3). Students explore the chemical concepts involved in a minimum of four current national and international scientific, social, and economic issues, and analyze the complexity of the possible solutions of these issues. Prerequisites: CHEM 101, 103, or 111.

CHEM 481. Cooperative Education in Chemistry (1-4). Permits chemistry students to participate in the Cooperative Education program. Offered Cr/NC only.

Courses for Graduate/Undergraduate Credit

>CHEM 514. Inorganic Chemistry (3). General education further study course. Basic inorganic chemistry emphasizing molecular symmetry and structure, fundamental bonding concepts, ionic interactions, periodicity of the elements, systemsatics of the chemistry of the elements, acid-base chemistry, and non-aqueous solvents, classical coordination chemistry.
and introductory bioorganic chemistry. Prerequisite: CHEM 112 with a C or better.


>CHEM 524. Instrumental Methods of Chemical Analysis (4). 2R; 6L. Lab fee. Introduction to instrumental chemistry and optical methods of analysis and separation of complex mixtures, both inorganic and organic. Also discusses basic computer programming as it applies to analytical chemistry. Prerequisite: CHEM 523.

>CHEM 523. Organic Chemistry (4). 3R; 6L. Lab fee. General education further study course. An introduction to the study of carbon compounds emphasizing reaction mechanisms, stereochemistry, and spectrographic analysis. Prerequisite: CHEM 112 with a C or better.

CHM 532. Organic Chemistry (5). 3R; 6L. Lab fee. A continuation of CHEM 531 emphasizing the structure and reactions of principal functional groups and compounds of biological interest. Prerequisite: CHEM 531.

>CHEM 533. Elementary Organic Chemistry (3). General education further study course. Basic organic chemistry emphasizing topics of importance to health professions and education majors. Special emphasis to carbohydrates, proteins, drugs, pesticides, and energy production. Students should enroll in CHEM 534 simultaneously. Credit is not allowed for both CHEM 533-534 and 531. This course does not meet the needs of chemistry majors or premed students. Prerequisite: CHEM 112 or equivalent.

>CHEM 534. Elementary Organic Chemistry Laboratory (2). Lab fee. A basic laboratory course to provide pertinent experiences in the laboratory to fortify the survey lecture course CHEM 533. Prerequisite or corequisite: CHEM 533.

>CHEM 546. Physical Chemistry (3). Kinetic theory, kinetics, transport phenomena, quantum theory, spectroscopy, and statistical thermodynamics. Prerequisites: CHEM 112, one year of college physics and MATH 344 or its equivalent.

>CHEM 547. Physical Chemistry Laboratory (2). 6L. Lab fee. Physical chemistry experiments that illustrate principles learned in CHEM 546 and 548. Prerequisite or corequisite: CHEM 546.


>CHEM 549. Numerical Methods (2). Application of numerical methods to problems in chemistry and physics. Roots of equations, curve fitting, interpolation, extrapolation, and smoothing of experimental data; numerical differentiation and integration; and computer programming. Prerequisite: instructor's consent.

>CHEM 563. Industrial and Polymer Chemistry (3). Bridges the industrial-academic gap. Includes petroleum refining processes and distillation technology. Inorganic topics include glass technology, electro-refining and electroplating, and battery chemistry. Discusses cellulose (biomass)-based products such as gelling polysaccharides and natural fibers along with industrial adsortants (clays, zeolites, ion exchange resins, carbon blacks), and emulsion technology. Topics in polymer chemistry include ways of making polymers, resins, elastomers, and synthetic fibers; methods of polymer analysis, structure-property relationships (how structure influences physical properties), plastics recycling, and methods of plastics and composites processing. Prerequisite: corequisite: CHEM 532.

>CHEM 605. Medicinal Chemistry (3). For students interested in chemistry related to the design, development, and mode of action of drugs. Course describes those organic substances used as medicinal drugs and explains the mode of action and chemical reactions of drugs in the body; illustrates the importance and relevance of chemical reactions as a basis of pharmacological activity, drug toxicity, allergic reactions, carcinogenicity, and other important understanding of drugs. Includes transport, basic receptor theory, metabolic transformation of drugs, discussion of physical and chemical properties in relation to biological activity, drug design, structure-activity relationships, and discussions of a select number of organic medicinal agents. Prerequisite: CHEM 532 or 533, or equivalent; a semester of biochemistry (CHEM 661 or 662) and a year of biology are strongly recommended.

>CHEM 615. Advanced Inorganic Chemistry (3). Includes modern bonding theories, structure and spectra of inorganic compounds, coordination and organometallic chemistry, boranes, inorganic ring systems and polymers, inorganic environmental chemistry, mechanisms of inorganic reactions, and solid state chemistry. Prerequisites: CHEM 514 and 546.

>CHEM 616. Inorganic Chemistry Laboratory (2). 6L. Lab fee. Experimental methods of inorganic chemistry. Prerequisite or corequisite: CHEM 615.

>CHEM 641. Advanced Physical Chemistry (3). Quantum chemistry, atomic and molecular spectra, statistical thermodynamics, and reaction rate theory. Prerequisite: CHEM 548.

>CHEM 661. Introductory Biochemistry (3). General introduction to further study course. An introductory course for chemistry majors including chemistry/business majors and students in life sciences. Not recommended for the BS in chemistry for health sciences or biochemistry field majors for whom CHEM 662 and 663 are required. Introduces thermodynamics and biological oxidation-reduction reactions: structure, metabolism, and synthesis of proteins, carbohydrates, lipids, and nucleic acids; enzyme kinetics, photosynthesis, and transfer of genetic information. Prerequisite: CHEM 532.

>CHEM 662. Biochemistry of Cell Constituents, Catalysis, Oxidation, Photosynthesis (3). Study of major constituents of the cell: protein, carbohydrate, glycoprotein, lipid, nucleic acid, nucleoprotein, enzyme catalysis; biological oxidations; photosynthesis; and introduction to intermediary metabolism. A fundamental background of biology or microbiology is recommended but not essential. Prerequisites: CHEM 523 or 532 or equivalents.

>CHEM 663. Biochemistry of Cell Metabolism, Biosyntheses, Structure, Function, and Regulation of Proteins and Nucleic Acids (3). Study of metabolism and control of carbohydrates, lipids, phosphoglycerides, sphingolipids, steroids, amino acids and proteins; synthesis of porphyrins, amides and polynucleotides; synthesis and metabolism of purines, pyrimidines, and nucleotides; synthesis and structure of lipids, ketones, and ketosteroids. Organization and functioning of genes; evolution of proteins and nucleic acids; hereditary disorders of metabolism; biochemistry of endocrine glands; major nutrients and vitamins; body fluids and general physiological and pathological tissues. A fundamental background of biology or microbiology is recommended but not essential. Prerequisite: CHEM 662.

>CHEM 664. Biochemistry Laboratory (3). R; 6L. Lab fee. Practical training in biochemical procedures and literature searching; experiments include isolation, characterization and assay of biopolymers and use of centrifugation, chromatography, electrophoresis, spectrophotometry, enzyme kinetics, and radioactive labeling techniques. Should be taken concurrently with CHEM 662 or 663. Prerequisite: CHEM 532 or equivalent.

>CHEM 665. Special Topics in Biochemistry (3). (Offered fall semester in even-numbered years.) Discusses a small number of current problems in biochemistry in depth. Requires reading of published research in the field. Prerequisites: BIOL 211 and CHEM 662 and 663.

>CHEM 666. Research in Biochemistry (2). Cross-listed as BIOL 666. 5U grade only. Students in the biochemistry lab major, who wish to participate in a biochemistry research project under the direction of a faculty member. Requires a written report summarizing the results. May be repeated once for credit. Prerequisites: BIOL 420 and CHEM 662 or 663 and 664.

>CHEM 690. Independent Study and Research (2-3). Studies performed must be directed by a faculty member in the Department of Chemistry. Reportable for credit. A maximum of 3 credit hours may be counted toward graduation. Prerequisite: departmental consent.
CHEM 700. Chemistry Seminar (1). S/U grade only. Students give seminars on either papers recently published in the literature or on their own research. Repeatable for credit.

CHEM 701. Chemistry Colloquium (1). S/U grade only. Speakers for the colloquium consist of outstanding chemists from other institutions and faculty. Repeatable for credit.

CHEM 702. Environmental Science I (4). 2R-2L. Cross-listed as BIOL 702 and GEOl 702. Advanced theoretical and applied principles of the interdisciplinary study of environmental science. Includes chemical cycling, atmospheric chemistry, aquatic chemistry, and phase interactions. Prerequisite: acceptance into the master's program in environmental science or instructor's consent.

CHEM 703. Environmental Science II (4). 2R-2L. Cross-listed as BIOL 703 and GEOl 703. Advanced theoretical and applied principles of the interdisciplinary study of environmental science. Includes environmental chemical analysis, environmental toxicology, aquatic microbial biochemistry, environmental biochemistry, water treatment, photochemical smog, and hazardous waste chemistry. Prerequisite: acceptance into the master's program in environmental science or instructor's consent.

CHEM 704. Environmental Science Colloquium (1). Cross-listed as BIOL 704 and GEOl 704. Students in the master's program in environmental science are required to enroll each semester (maximum 4 credit hours). Includes presentations by guest speakers and required readings for class discussion. May also include student involvement in environmentally related community groups and projects.

CHEM 705. Environmental Chemistry Internship (3-6). Cross-listed as BIOL 705 and GEOl 705. Students in the master's program in environmental science may gain interdisciplinary skills in environmental science by participating in applied and/or basic research internship projects with local business, industry, or government agencies. Internship option is an alternative to thesis research for degree requirements. Enrollment in internship projects requires an approved proposal. Completion of an internship for graduation requires a formal oral presentation of the internship activity and a written report. Prerequisites: CHEM 702 and 703.

CHEM 706. Special Topics in Chemistry (2-3). A discussion of topics of a special significance and interest to faculty and students. Offerings announced in advance. Repeatable for credit.

CHEM 712. Coordination Chemistry (3). The study of the synthesis, characterization, and properties of coordination compounds. Includes nomenclature, fundamental bonding concepts, principles of synthesis, mechanisms of substitution and electron transfer reactions, catalysis, and solid-state phenomena. Prerequisite: CHEM 615 or equivalent.

CHEM 713. Physical Methods in Inorganic Chemistry (3). An introduction to electronic and vibrational spectroscopy, magnetic susceptibility, EPR, NMR, Mossbauer spectroscopy, and X-ray crystallography as applied to inorganic systems. Emphasis on interpretation of results for understanding the electronic and molecular structure of compounds.

CHEM 731. Physical Organic Chemistry (3). Discussion of advanced topics in stereochemistry and conformational analysis and organic reaction mechanisms. Prerequisite: CHEM 532.

CHEM 732. Advanced Organic Synthesis (3). Discussion of modern synthetic methods in organic chemistry, including carbon-carbon forming reactions, oxidation and reduction reactions, protective groups, and organometallic chemistry. Prerequisite: CHEM 532.


CHEM 741. Quantum Chemistry (3). Theoretical basis of atomic and molecular structure. Includes the postulates of quantum mechanics, exact solutions for the particle-in-a-box and the hydrogen atom, variation and perturbation techniques, electron spin, Hartree-Fock and configuration-interaction methods, molecular-orbital and valence-bond wave functions, and virtual and Heitler-London theorems. Prerequisites: CHEM 546, MATH 344 or equivalent. Corequisite: CHEM 716 or equivalent.

CHEM 744. Computational Quantum Chemistry (3). An introduction to molecular orbital procedures and methods for calculating a wide range of physical, chemical, and electronic properties of systems large enough to be of interest to inorganic and organic chemists. Using commercial molecular orbital software programs such as MOPAC, SPARTAN, and GAUSSIAN, students learn to select appropriate "model" computational procedures to predict properties of molecules and reactions. By comparison with experiment, students learn to assess the range of applicability and accuracy of the "model" methods as applied to various categories of chemical systems. Properties considered include energies and structures of molecules, ions, and transition states; vibrational frequencies, IE and RAMAN spectra; thermochemical properties; heat of formation, bond and reaction energies, ionization energy barriers; reaction pathways; molecular orbitals, atomic charges, dipole and multipole moments, ionization potentials; bond orders; orbital energies and photoelectron spectroscopy; excited state properties, singlet and triplet surfaces. Prerequisite: CHEM 546 or equivalent (MATH 344 is necessary).

CHEM 751. Chain Growth Polymerization (3). Mechanisms, kinetic, and thermodynamic aspects of polymerization processes which proceed by a chain growth mechanism, free radical, anionic, cationic, and zeolite Natta and group transfer polymerization. Prerequisites: CHEM 531 and 548.

CHEM 752. Step Growth Polymerization (3). Polymerization process which proceed by a step growth or ring-opening mechanism. Preparation of thermoplastics, including relationships between molecular weight and reaction condition. Preparation of thermosets including relationships between structure, conversion, and gelation. Discusses individual systems such as nylon, epoxies, resins, and polynides in detail. Prerequisites: CHEM 531 and 548.

Please see the Graduate Catalog for courses numbered 800 and above.

Communication (COMM), Elliott School of

The Elliott School of Communication offers an integrated major in communication leading to the Bachelor of Arts (B.A.) degree. Students can develop a special (open) emphasis that respects their background and experience and is consistent with their educational and professional goals, or choose a structured emphasis in strategic communication, broadcast journalism, electronic media, integrated marketing communications, or print journalism.

This comprehensive communication degree has three distinguishing characteristics:

1. It is interdisciplinary in nature, reflecting the contemporary belief that all communication media are engaged in essentially the same functions (gathering information and creating and disseminating messages) and that the present-day communication professional must be schooled in the basic skills—writing, speaking, and visual communication—and must develop the ability to plan, organize, evaluate, and think strategically. Founded on the principle that communication specialists should also be communication generalists, this degree program combines disciplinary strengths in an inter-disciplinary matrix.

2. It is consistent with the mission of Wichita State University to offer programs that are responsive to the needs of the urban community that the University serves. The Kansas communication industry has its focus in Wichita, the major media center of the state.

3. Its location allows the program and its students to take full advantage of the communication opportunities afforded by the largest city in Kansas. The region of the state served by WSU includes one public and four commercial television stations, more than 15 radio stations, nine daily and 32 weekly newspapers, more than 25 advertising agencies, and a range of international, national, regional, and local industries, businesses, and public agencies, many with substantial communication operations. This setting allows students to combine academic and professional interests in a program that matches concept with example, education with experience.

Degree Requirements

Major. Students majoring in communication must maintain a 2.500 grade point average (overall and in the major), complete a minimum of 40 credit hours in communication, including 22 credit hours in the communication core, and submit a portfolio of their work during their senior year (see portfolio requirement below).
All students must take the communication core courses: COMM 130, 301, 305, 325, 472, 535, and two courses from 430, 630, and 631. At least 18 credit hours must be in either a structured or an open emphasis area. Specific course requirements in the emphasis areas are listed below:

a. Broadcast Journalism: COMM 401, 422, 622, one course from 304, 500, 522, 604, and 609; and 6 hours of upper-division communication elective credit.

b. Electronic Media: COMM 303, 304, 332, 604, 609, and 3 hours of upper-division communication elective credit.

c. Integrated Marketing Communications: COMM 324, 502, 510, 525, 626, and 3 hours of upper-division communication elective credit. Outside course requirements: MKT 300 and 405.

d. Print Journalism: COMM 310, 401, 500, 510, one course from 340, 550, 571, 660; and 3 hours of upper-division communication elective credit.

e. Strategic Communication: One course from 311, 328, or 511 (Foundation cluster); choose one course from 290, 302, and 312 (Interpersonal Communication cluster); choose one course from 640, and 650 (Organizational Communication cluster); choose one course from 313, 502, and 632 (Public Affairs cluster); choose one course from the following or two courses that combine for three credits from 398, 402, 481, 581, 622, and 690 (Practicum) or choose one additional course selected in consultation with your advisor (Elective).

f. Open Emphasis: Students can develop and propose an open emphasis more appropriate for their interests and needs than a structured emphasis area and which respects their backgrounds and experience. These proposals must be developed by students in consultation with a faculty advisor, be substantially different from the structured emphasis areas available, and be coherent and justifiable to a committee, which will review and act on these proposals at specified times during the academic year. Each student must submit for approval an Open Emphasis Plan of Study to the Undergraduate Admissions Committee of the Elliott School of Communication at the beginning of the student’s junior year or upon completion of 18 credit hours in the major.

Minor. A minor in communication consists of two courses from the communication core plus at least 12 hours of electives in communication chosen with the approval of a faculty advisor (6 of the 12 hours must be at the 300-level or above). A minor in graphic design communications is available to any student working toward a bachelor of fine arts graphic design degree. This minor consists of 15 credits made up of the following three-hour courses: COMM 301, 324, 510, 525, and 626. An additional one-hour course, COMM 672, is strongly recommended to students who pursue this minor.

Field Majors. Students seeking a field major may elect either an 18-hour concentration in communication (as the major area of study) or a 9-hour concentration in communication (as one of two allied departments taken in addition to the major area of study). Some or all of the upper-division coursework may be in the communication core courses.

Bachelor of General Studies. Students seeking a BGS degree may elect either a 15- to 21-hour concentration in communication (as the focal or primary concentration) or a 6- to 12-hour concentration (as one of two secondary concentrations taken in addition to the primary concentration). Some or all of the upper-division coursework may be in the communication core courses.

Certificate in Applied Communication. This certificate program is designed for supervisors, managers, and other professionals who work with employees and coworkers. The six courses (18 hours) offered in this program concentrate on applied communication, a key component of successful management. These are standard college classes offering practical tools for professionals. Many are offered in the evenings, on weekends, or in condensed formats. The certificate program requires successful completion of the following courses: COMM 302, 312, 325, 328, 360, and 550. COMM 111, Public Speaking, or the equivalent is a prerequisite for the certificate program.

Admission Requirements

Students planning to pursue a major in communication must file formal application for admission to major status. To be admitted, applicants must be students in Fairmont College; have an overall grade point average of 2.500 or better; pass a standardized departmental English Proficiency Test (the Grammar, Spelling, and Punctuation test, or CSP); and file an Application for Admission to Major Status form. With the Elliott School of Communication, additional information regarding the application process and procedures is available from the main office of the Elliott School.

Advising Requirements

The undergraduate coordinator will advise all pre-majors in communication to help students understand and attempt to meet the requirements for admission to major status in communication (see Admission Requirements above). Upon admission to major status, students will be assigned a faculty advisor who will help them select their emphasis area or develop an open emphasis, which requires preparation of an undergraduate plan of study. Students are strongly encouraged to meet with their advisors at least once a semester while they are enrolled.

Portfolio Requirement

Students majoring in communication must successfully complete COMM 472, Senior Portfolio Seminar. The seminar will assist students to prepare a resume and portfolio that reflects their academic and professional work in communication, and which can be used in seeking employment or opportunities for further study upon graduation. The portfolio, which can include videotapes, interactive media, brochures, and scholarly papers, will be reviewed by a three-member committee of communication faculty and professionals. Students should enroll in the seminar upon achieving senior status (i.e., finished 90 hours of coursework) and after completing at least 18 hours of communication coursework.

Communication Core Courses

COMM 130. Communication and Society (3). Introduces the functions, processes, and effects of individual and mass communication in American society. Explores economic, social, and governmental impacts of such communication. Includes a survey of the media and communication industry.

COMM 301. Writing for the Mass Audience (3). A hands-on introduction to writing for the mass audience, including print and broadcast journalism, advertising, and public relations. In this survey-style course, students become acquainted with various news and promotional writing techniques and formats, develop reporting and interviewing skills, and learn to apply media judgment and ethics. Course is a prerequisite to many specialized Elliott School courses. Prerequisite: grade of C or better in ENGL 101, ENGL 102, and COMM 130 and pass the department's Grammar, Spelling, and Punctuation (CSP) exam.

COMM 305. Visual Technologies (3). Examines the importance and meaning of visual symbols in modern society. Explores the methods by which visual images inform, educate, and persuade readers.

COMM 325. Speaking in Business and the Professions (3). A study of the basic concepts of public speaking and discussions as they apply to the business and professional person. Emphasizes public presentations, group leadership, and interpersonal communication as appropriate to business and professional oral communications. Prerequisite: COMM 111 with a grade of C or better.

COMM 400. Communication Research and Inquiry (3). General education further study course. Introduces the process of research and inquiry across the discipline of communication. Helps students in communication become more intelligent consumers of research and investigative inquiry, and to become more adept at designing their own research projects. Includes information gathering, structuring inquiry with qualitative and quantitative research designs, and processing and reporting information. Prerequisite: junior standing and COMM 130 or instructor's consent.

COMM 472. Senior Portfolio Seminar (3). Students prepare a resume and portfolio of their best work to be evaluated by faculty members and communication professionals in their area of emphasis. Ideally completed in a student's final semester before graduation. Graded Cr/NC. Prerequisites: senior standing, completion of 18 hours of communication coursework, and departmental consent.

COMM 535. Communication Analysis and Criticism (3). General education further study course. Introduces the methods used for the analysis and critique of various linguistic, pictorial, and aural elements of communication to become more
COMM 600. Communication Law and Responsibility (3).
Emphasizes both oral and written aspects of communication law and responsibility. Addresses general functions of the law including the right to communicate, broadcast law, and law of the press. Includes discussion of the First Amendment rights, libel, privacy, copyright, advertising, obscenity, pornography, and corporate communication concerns. Prerequisite: COMM 301 with a C or better or instructor's consent.

>COMM 631. Historical and Theoretical Issues in Communication (3). General education further study course. Examines the development of various issues in communication in historical context. Emphasizes different humanistic and scientific theories of communication and the historical development of mediated communication. Uses selected theories to generate critiques of specific communication events. Prerequisite: junior standing and COMM 130 or instructor's consent.

Lower-Division Courses

COMM 101. Reducing Fear of Speaking (2). For students who feel an unwarranted degree of fear, nervousness, or stage fright when confronting situations calling for oral communication, especially but not exclusively, before groups of people. Goal is to reduce the fear of such situations through practice in supportive settings and other specific methods developed in the fields of counseling and speech communication that have been demonstrated effective in reducing communication anxiety.

>COMM 111. Public Speaking (3). General education basic skills course. Studies basic concepts of speech communication as applied to public speaking. For students wishing to enhance leadership potential by improvement in traditional public speaking situations (the University's requirements in oral communication must be fulfilled by completion of COMM 111). For especially qualified students, an exemption or advanced standing examination is available. (For further information, contact the Elliott School of Communication.)

>COMM 111H. Public Speaking (1). General education basic skills course. Counts as an Honors Seminar. Studies basic concepts of speech communication as applied to public speaking and critical analysis. Goal is to learn basic strategies for tailoring messages to overcome obstacles in a variety of public speaking situations. Prerequisite: Honors standing.

COMM 150. Debate Workshop (2). Instruction in theory and techniques of debate and preparation for debating the national high school debate topic. Not repeatable for credit. Prerequisite: departmental consent.

>COMM 199. Introduction to Human Communication (3). General education introductory course. Explores several alternative frameworks by which humans cope with and control the communication environment. Use observational and experiential opportunities to discover the variety of patterns used by humans to symbolically interact with themselves, each other, and entire cultures. Utilizes multimedia instructional procedures.

COMM 202. Debate and Forensics (3). Research and preparation for debate and individual speaking events, participation in intercollegiate debate and/or forensics competition, and debate and forensics squad meetings. Repeatable for a maximum of 6 hours credit. May not be counted toward a major. Prerequisite: departmental consent.

COMM 220. Introduction to Film Studies (3). Emphasizes the nature and function of film as a mode of communication with attention to film theory and technical criticism. Selected films are shown in class.

>COMM 221. Oral Interpretation (3). General education further study course. Cross-listed as THEA 221. Develops the mental, vocal, and analytical techniques essential to the oral interpretation of literature.

COMM 222. Improving Voice and Diction (3). Cross-listed as THEA 222. For students wishing to improve their speaking voices and gain greater control over their pronunciation of spoken English. Course is performance oriented; however, the anatomy of the vocal mechanism and the International Phonetic Alphabet are studied for practical application in the improvement of voice and diction.

COMM 260. Seminar in Communication (1-3). Special seminars dealing with current problems, issues, or interests in various areas of communication. For the introductory student in communication. Repeatable for credit in different topics only.

Upper-Division Courses

>COMM 302. Interpersonal Communication (3). General education further study course. Develops an awareness of the elements of interpersonal communication and aids the student in establishing more meaningful and effective interpersonal relationships, both personally and professionally.

COMM 303. Audio Production (3). Production and direction of audio programs. Hands-on use of all standard audio production equipment to learn techniques of sound blending and reproduction.

COMM 304. Studio Video Production (3). 3R, 2L. Basic principles, procedures, and techniques of video production, including operation of studio equipment and direction of television programs and other video productions. Prerequisite: COMM 303 or Instructor's consent.

>COMM 310. Introductory Photojournalism (3). 3R, 3L. Lab fee. Basic photographic theory and technique emphasizing aspects of importance to journalists, writers, and editors. Students take, develop, and prepare pictures for publication. Prerequisite: COMM 301.

>COMM 311. Persuasion (3). General education further study course. Explores the history, development, and manifestation of persuasive techniques through the study and/or creation of persuasive messages in speeches, mass media, advertising, politics, and organizations. The student becomes a better user and critic of persuasive messages and strategies. Prerequisite: COMM 111.

>COMM 312. Nonverbal Communication (3). General education further study course. Studies the principles of effective oral and written communication, and the development of skills for identifying and evaluating communication behavior in small group situations emphasizing the dynamics of teamwork and group leadership.

COMM 324. Introduction to Integrated Marketing Communications (3). Introduces the theory and practice of the integrated fields of advertising and public relations viewed from the perspective of integrated marketing communications. Includes audience research, the creation of specialized messages, and message delivery systems. Prerequisite: COMM 301 or departmental consent.

COMM 328. Teamwork, Leadership, and Group Communication (3). Studies the nature and functions of groups and the development of skills for identifying and evaluating communication behavior in small group situations emphasizing the dynamics of teamwork and group leadership.

COMM 332. Writing for Electronic Media (3). Writing formats, commerce, continuity, and drama for the electronic media, including audio and video programs and productions. Prerequisite: COMM 301 with a C or better or instructor's consent.

COMM 340. Applied Photojournalism (3). 3R, 3L. Lab fee. Covering photographic assignments for the campus newspaper and other publications, under the overall supervision of a journalism instructor. Prerequisite: COMM 310.

COMM 398. Travel Seminar (1-4). An interdisciplinary travel seminar that allows a student to gain credit for the study of one of the following: culture, art, literature, architecture, politics, society, science, or economics while visiting historic places of interest. Prerequisite: departmental consent.

COMM 401. Beat Reporting (3). Reporting and writing about events in the community. Stories assigned and handled under the instructor's direction may be used in various publications. Prerequisite: COMM 301 with a C or better.

COMM 402. Debate and Forensics (3). Research and preparation for debate and individual speaking events, participation in intercollegiate debate and/or forensics competition,
and debate and forensics squad meetings. Repealtable for a maximum of 6 credit hours. Three hours may be counted toward the major. Prerequisite: departmental consent.

COMM 422. Broadcast News (3). Theory and techniques of preparing news for the electronic media, including preparation of news reports for radio and television. Prerequisite: COMM 301 with a C or better.

COMM 460. Seminar in Communication (1-3). Special seminars dealing with current problems, issues, or interests in various areas of communication. For the intermediate student in communication. Repeatable for credit in different topics only.

COMM 481. Cooperative Education (1-2). Credit for cooperative field placement that integrates theory with a planned and supervised professional experience designed to complement and enhance the student’s academic program. Individualized programs must be formulated in consultation with and approved by appropriate faculty sponsors. May be repeated, but limited to a total of 4 credits in COMM 481 and COMM 690. Graded Cr/NC; Prerequisite: departmental consent.

Courses for Graduate/Undergraduate Credit

COMM 500. Advanced Reporting (3). 3R; 4L. For juniors and seniors; the techniques of reporting and writing the more complex and important types of news stories. Covers police beat stories, sports, and economic reporting; includes the study and practice of journalistic interviewing. Prerequisites: junior standing, COMM 301 with a C or better, and either 401 or 422.

COMM 502. Public Information Writing (3). Uses basic journalistic skills of clear, precise writing to communicate effectively with various audiences. Students write press releases, speeches, and popularizations of complex documents. Techniques learned are valuable in writing grant proposals, committee reports, pamphlets, and journal articles. Prerequisites: COMM 301 with a C or better, junior standing, or departmental consent.

COMM 510. Editing for Print (3). Selection, evaluation, and preparation of copy and pictures for publication. Covers copy editing, rewriting, headline and caption writing, and page layout. Prerequisites: junior standing and COMM 301 with a C or better.

COMM 511. Strategic Communication in Organizations (3). Emphasizes the importance of effective communication in building meaningful relationships, grooming civic leadership and producing marketable employees. Human communication skills taught include: how to give effective presentations, facilitate small group discussions, handle conflict, manage diverse constituencies at various levels of organizational, interpersonal, small group; public and contemporary topics and issues. Prerequisite: COMM 310 or instructor’s consent.

COMM 522. Advanced Broadcast News (3). 3R; 3L. Advanced techniques of preparing news for radio and television presentation emphasizing actual work in radio and television newsrooms. Lab periods arranged with instructor. Prerequisite: COMM 422.

COMM 525. Advertising Copywriting (3). Detailed practice at writing various kinds of advertising copy, including print and broadcast forms. Emphasizes the written work that sells response sought by the advertiser. Prerequisites: COMM 324 and COMM 301 with a C or better or departmental consent.

COMM 526. Media Buying and Selling (3). Principles, methods, and strategies of buying and selling media for advertising, including the study of reach and frequency of the various mass media and specialized media, budgeting, research, rates, market share, and other tools of current buying and selling strategies. Prerequisite: COMM 324 or instructor’s consent.

COMM 550. Opinion Writing (3). Studies editorial judgment, including practice in the writing of print, broadcast, and electronic opinion pieces, and the examination of traditional and new technology research materials available to opinion writers. Prerequisites: COMM 301 with a C or better and junior standing.

COMM 570. Magazine Production (3). Magazine production including the choosing of subjects, approaches and illustrations, the shooting and editing of photographic stories, layout, the handling of production and management concerns. Prerequisites: COMM 301 and 510 or departmental consent.

COMM 571. Feature Writing (3). Writing features for newspapers and magazines. Nonfiction topics may include personal experience essays, consumer pieces, travel articles, and personality profiles. Prerequisites: COMM 301 with a C or better and junior standing.

COMM 581. Communication Practicum (1-3). Application of theory, principles, and practices to professional settings where students work under instructor supervision to continue their professional preparation in various areas of media and communication. Prerequisites: COMM 301 and instructor’s consent.

COMM 604. Video Storytelling (3). Application of video equipment and techniques for field productions. Execution of visual and audio expression in relation to effective video productions in a field setting. Prerequisite: COMM 304 or instructor’s consent.

COMM 609. Interactive Media Production (3). Investigation and application of production techniques for educational and instructional broadcasting, emphasizing television. Prerequisite: COMM 304.

COMM 612. School Publications Advising (3). Assists those who are preparing to advise teachers who currently supervise a student newspaper or yearbook. Emphasizes techniques for teaching various forms of writing and design, duties relating to production and finance of school publications, and methods to help students become better communicators. Prerequisite: COMM 301 with a C or better or instructor’s consent.

COMM 622. Studio B: Live Television News (3). Reporting and writing about events in the University and community. Story assignment and preparation under the instructor’s guidance; story broadcast over WSU Cable Channel 13. May be repeated for credit with advisor’s consent. Prerequisite: COMM 422 or instructor’s consent.

COMM 626. Integrated Marketing Communications Campaigns (3). Instruction and practice in planning and developing integrated advertising and public relations campaigns. Teaches students to perform a situation analysis, identify objectives, develop strategies and tactics, and write a plan book, as well as produce advertising and public relations campaign materials. Prerequisites: COMM 324 and 525 or instructor’s consent.

COMM 635. Leadership Techniques for Women (3). Co-listed as WOM 635. Provides the female student experience in decision making and improves skills in leadership through role playing and exercise in group dynamics.

COMM 638. Advanced Public Speaking (3). Skills development in a variety of advanced presentation methods, including speaking from a TelePrompTer, using PowerPoint technology, spokesperson/presentation, conducting a training session, formal manuscript speaking, after dinner speaking, and writing a speech for another person. Prerequisite: COMM 325.

COMM 640. Issues in Corporate Communication (3). Examines how corporations craft messages that are persuasive to their various publics. Special attention to how companies use communication strategies to cope with situations that threaten their reputations.

COMM 650. Communication Training and Development (3). An examination of communication concepts, processes, technologies, and strategies related to training and development. Includes the application of these elements to formal instruction across disciplines and at various educational levels as well as in most professional training settings.

COMM 660. Seminar in Communication (1-3). Special seminars dealing with current problems, issues, or interests in various areas of communication. Repeatable for credit in different topics only.

COMM 661. Directing the Forensics Program (3). A study of the methods and procedures in coaching and directing the high school and collegiate forensics programs (debate and individual events). The future coach is made aware of the literature and professional organizations in the field.

COMM 675. Directed Study (1-3). Individual study or projects. Repeatable for credit with departmental consent. Prerequisite: departmental consent.

COMM 689. Communication Internship (1-2). Credit for professional experience that integrates theory with a planned and supervised professional experience designed to complement and enhance academic program. Individualized programs must be formulated in consultation with and approved by appropriate faculty sponsors. May be repeated, but limit-
Communicative Disorders and Sciences (CDS)

For students desiring an emphasis in applied language study, see requirements and curriculum for a major in communicative disorders and sciences through WSU listed in the College of Education section of the Catalog.

Community Affairs, School of

WSU’s School of Community Affairs, created in 1999, brings together the departments of criminal justice, ethnic studies, and gerontology to form a unique and diverse curriculum to better serve the needs of students to work in an ever-changing urban and global community. Additionally, the Midwest Criminal Justice Institute (MCJ), the Regional Community Policing Training Institute (RCTTI), and the Juvenile Justice Research Center provide opportunities to blend teaching, research, and service. As a result, the School of Community Affairs not only serves as a quality educational unit for students, but also functions as a research and service unit that assists with a broader range of needs identified in the community.

Criminal Justice (CJ)
The Criminal Justice Program offers the Bachelor of Science and Master of Arts degrees in criminal justice. These degree programs are designed to provide pre-service and inservice students with a broad educational background in all aspects of the criminal justice field.

The Bachelor of Science degree program is described below.

Major. The major in criminal justice consists of at least 36 hours (but not more than 50 hours) will count toward the BS degree) with at least 21 semester hours of upper-division coursework in criminal justice. ENGL 210 and ETHS 360 are additional requirements to be taken during the first two semesters as a criminal justice major. Students who plan to graduate with a BS in criminal justice must also satisfy Fairmount College requirements (including the foreign language requirement) and the University requirements for the Bachelor of Science degree. The curriculum is divided into two areas:

1. Core courses: CJ 191, 391, 392, 394, and 407; and CJ 407 or 497.
2. Students must complete the 18 hours of core courses and 18 hours of electives. Students may take 14 additional credit hours beyond the 36 hours required for the major (for a total of 50 hours). There is a maximum of 6 hours in each of the following: 481, 482, or 483; and there is a maximum of 12 hours total in any combination of 481, 482, and 483.

Minor. The minor in criminal justice consists of at least 18 hours of criminal justice courses, of which at least 6 hours must be at the upper-division level (300 and above). The following requirements must be met for the minor:

1. CJ 191
2. A minimum of two and a maximum of three of the following courses: CJ 391, 392, 394, and 407.

Certificate Programs in Criminal Justice
Certificate programs are designed to enhance the career needs of law enforcement and other criminal justice system professionals or those who contemplate a career in the criminal justice profession. A certificate is not a substitute for an academic degree and will not qualify a person for a position which requires a degree.

Certificate in Forensic Criminology
The Certificate in Forensic Criminology is a four-course sequence that provides a study of the application of the natural sciences to assist law enforcement and the criminal justice system. It is designed for:

- Individuals who want to work as crime scene investigators, criminal investigators, and crime laboratory personnel;
- Individuals who have an interest and future career plans in policing and scientific crime detection;
- Individuals who want exposure and knowledge of forensics as a possible career choice.

To qualify for a Certificate in Forensic Criminology, students must complete four of the following courses with an average grade of B or better. CJ 191, Introduction to Criminal Justice, is a prerequisite for all courses.

- CJ 341, Criminalistics and Scientific Crime Detection
- CJ 343, Special Investigations
- CJ 541, Medical and Legal Aspects of Death Investigation
- CJ 600, Forensic Anthropology
- CJ 641, Forensic Psychiatry
- CJ 643, Forensic Science

Certificate in Cross-Cultural Communications in Criminal Justice
The Certificate in Cross-Cultural Communications in Criminal Justice provides learning experiences that will prepare practitioners to promote favorable interaction between criminal justice agencies and the minority groups they serve. This emphasis area prepares students to develop empathetic responsiveness, combined with humanistic insights, and to develop and maintain mutually dependent helping and working relationships between criminal justice agencies and a variety of minority groups.

Students majoring in criminal justice also may obtain the Certificate in Cross-Cultural Communications in addition to the BS in criminal justice degree. Those students seeking this certificate must satisfactorily complete ETHS 520, Fundamentals of Cross-Cultural Communication, and one of the following: ETHS 531, The Black Family, ETHS 532, The Native American, ETHS 533, Issues in the Chicano Community, ETHS 534, Ethnic American in the Twentieth Century.

Also, students must take 12 additional hours in ethnic studies coursework, 9 of which must be in upper-division courses.

Certificate in Corrections
The Certificate in Corrections is designed to enhance the career needs of:

- Individuals who are employed as correctional practitioners;
- Individuals who want exposure to corrections as a possible career choice.

To qualify for a Certificate in Corrections, students must complete four of the following courses with an average grade of B or better. CJ 191, is a prerequisite for all courses.

- CJ 391, Corrections
- CJ 310, Community-Based Corrections or CJ 896, Seminar in Corrections
- CJ 610, Correctional Counseling
- CJ 652, Juvenile Justice and Social Policy

Certificate in Law Enforcement
The Certificate in Law Enforcement is designed to enhance the career needs of:

- Law enforcement officers;
- Individuals who want exposure and knowledge of law enforcement as a career choice.

To qualify for a Certificate in Law Enforcement, students must complete four of the following courses with an average grade of B or better. CJ 191 is a prerequisite for all courses.

- CJ 392, Law Enforcement
- CJ 895, Seminar in Policing
- CJ 341, Criminalistics and Scientific Crime Detection or CJ 343, Special Investigations
- CJ 692, Community Policing
- CJ 861, Police Administration
Lower-Division Course

>CJ 191. Introduction to Criminal Justice (3). General education introductory course. Introduces crime and the criminal justice system by discussing the nature of crime and by identifying multiple facets of the justice system, including the police, the courts, and correctional agencies. Studies the role of the criminal justice system as it relates to the individual and to society. Students become acquainted with criminal justice careers.

Upper-Division Courses

>CJ 191, unless otherwise noted, is a prerequisite or corequisite for all criminal justice courses.

>CJ 310. Community-Based Corrections (3). Focuses on the analysis and evaluation of programs in community settings such as diversion, probation, parole, halfway houses, faithful, study release, work release, and restitution. Discusses programs in terms of their definition, history, purpose, administration/operation, problems, cost, and effectiveness. Prerequisite: CJ 191.

>CJ 315. Criminal Law (3). History, scope, and nature of law; parties to crime; classification of offenses; act and intent; capacity to commit crime; and defenses. Examines elements of major criminal statutes and an overview of criminal processes and rules of evidence. Prerequisite: CJ 191.


>CJ 343. Special Investigations (3). Care, collection, and preservation of evidence. Studies sources of information and locating subjects, crime scene recording, and investigative techniques applicable to specific offenses. Prerequisite: CJ 191.

>CJ 351. The Victim in Criminal Justice (3). General education further study course. Examines the relationship of crime victims to the criminal justice system. Considers the role of the victim in crime occurrences, as well as theoretical developments in the field. Prerequisite: CJ 191.

>CJ 353. Organized and White Collar Crime (3). Surveys the history, scope, and impact of organized and white collar crime in America; areas of influence, remedial practices, and methods of legal control. Reviews the societal conditions involved in the appearance, spread, and expansion of organized and white collar crime in America and the overlap and interrelation between corporate and business crimes (white collar and organized crime). Emphasizes the processes of infiltration, fraud, and corruption that are characteristic of these conspiratorial crimes. Prerequisite: CJ 191.

>CJ 355. Special Populations in the Criminal Justice System (3). Cross-listed as ETHS 355. General education further study course. Examines the role of women and minorities as employees of the criminal justice system. Also explores the role of women, minorities, juveniles, and elders citizens as individuals who commit crime and are apprehended and sanctioned by the criminal justice system. Considers the unique challenges of each of the four identified populations, including their interactions with law enforcement, the judiciary, and corrections. Prerequisite: CJ 191.

>CJ 381. Special Topics (1-3). Detailed study of topics in criminal justice with particular emphasis established according to the expertise of the various instructors. Prerequisite: CJ 191.

>CJ 382. Workshop in Criminal Justice (1-3). Prerequisites: CJ 191 and instructor's consent.


>CJ 392. Law Enforcement (3). Examines the interaction of police and citizens as regulated by constitutional provisions and other legal and social constraints. Prerequisite or corequisite: CJ 191.

>CJ 393. Serial Killers (3). Examines the history, dynamics, causation, investigation, and control of the phenomena of serial crimes, particularly homicide. Emphasizes investigative techniques including psychological and geographic profiling. Prerequisites: CJ 191.

>CJ 394. Courts and Judicial Systems (3). General education further study course. Consists of a case study approach of an individual defendant from the time the crime is committed through the defendant's parole (of an actual homicide case in California). Includes legal analysis of the procedures and rules involved throughout the criminal justice process. Student plays the role of the decision maker for the law enforcement, court, and correction agencies, resulting in an in-depth analysis of the adversary procedures which form the basis for the criminal justice system. Prerequisite: CJ 191.

>CJ 401. Management of Criminal Justice Agencies (3). An intensive examination of a variety of emerging administrative and management concepts and the processes related to the determination and implementation of management philosophy. Prerequisite: CJ 191.


>CJ 420. Criminal Evidence (3). Concepts of criminal evidence rules as they pertain to kinds and degrees of evidence—procedure for admitting or excluding evidence; witnesses and privileged communications; the hearsay rule and its exceptions; and judicial notice, burden of proof, and presumptions. Emphasizes the rules of evidence that govern the criminal justice process. Prerequisite: CJ 191.


>CJ 453. Crime Prevention (3). General education further study course. A study of the theories of crime prevention efforts by governmental and nongovernmental agencies. Analyzes factors which contribute to the reduction of crime; crime analysis and prediction; the methodology of gathering crime data; and the relationship between the criminal justice system and the public. Prerequisite: CJ 191.

>CJ 481. Cooperative Education (1-4). Provides a field placement which integrates theory with a planned and supervised professional experience designed to complement and enhance the student's academic program. Individualized programs must be formulated in consultation with and approved by the cooperative education coordinator. Prerequisites: Criminal Justice major, 15 hours of CJ courses, junior or senior standing, and consent of the Criminal Justice agency. Offered on NC only.

>CJ 482. Internship (1-3). Supervised field placement with a governmental or private law enforcement, court, correctional, juvenile justice, forensic science, or security agency. Provides a learning experience in which the student can integrate and apply knowledge and theory derived from the Criminal Justice curriculum. Interns work 56 hours for 3 credit hours; there is a maximum of 9 credit hours. Prerequisites: 15 hours in Criminal Justice, junior or senior standing, consent of the Criminal Justice agency, and internship coordinator's consent.

>CJ 483. Individual Directed Study (1-3). Study in a specialized area of the criminal justice system emphasizing the student's research project. Repeatable for credit not to exceed a total of 6 hours. Prerequisites: 15 hours in the Criminal Justice core and individual directed study coordinator's consent.


Courses for Graduate/Undergraduate Credit

>CJ 501. Integrity in Public Service (3). Cross-listed as ETHS 501, GERON 502, P ADM 501. Exposes the student to basic principles of personal and professional integrity and the application of these principles to their daily life as a member of the community and as an employee of a government or social service agency. Emphasizes a case study method, using cases and examples from a wide range of government and non-profit agency experiences. Students become aware of the moral and ethical issues which may arise in their professional and per-
criminal and delinquent activity and the response of the criminal justice system to such behavior. Discusses the significant contributions of outstanding criminologists, as well as elaborating the application of these perspectives to criminal justice agencies. Prerequisite: CJ 191.


CJ 600. Forensic Anthropology (3). Cross-listed as ANTH 600. Encompasses the area of criminal investigation involving biological evidence: blood, hair, fingerprint, dentition, and skeletal system. Covers procedures of collection, preservation, marking, transportation, referral, laboratory analysis, classification, and identification emphasizing anthropological interpretation. Prerequisite: CJ 191.

CJ 610. Correctional Counseling (3). Analysis of the role of a correctional counselor. Emphasizes current practices in community-based and institutional correctional counseling. Discusses application of theories of counseling which are widely used in correctional settings, rehabilitative programs, and special needs of offenders. Prerequisite: CJ 191.

CJ 621. Environmental Law (3). Cross-listed as ETH S 621 and P ADM 621. An in-depth analysis of emerging federal, state, and local legislation; judicial decisions, and administrative policies in environmental protection. Explores the roles of a variety of governmental agencies and nongovernmental organizations as related to prevention and enforcement processes of environmental protection. Includes issues in the development and implementation of environmental policy. Prerequisite: an approved methods class.


CJ 641. Forensic Psychiatry (3). Analysis of the role of psychiatry in the criminal justice process. Introduces the student to concepts and procedures of forensic psychiatry. Prerequisite: CJ 191.


CJ 651. Dispute Resolution (3). Cross-listed as ETH S 651, GERON 651, P ADM 651. Examines a range of topics including causation, typologies, communications, mediation, arbitration, and other dispute resolution techniques. Includes criminal and victim mediation and both inter-group and inter-organization relations and dispute resolution techniques. Analyzes case studies.

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boundaries. Basic to the development of those knowledges, attitudes, and skills is an understanding of and appreciation for the unique experiences of the various ethnic groups in the larger context of United States Society. This discussion helps the students understand the role of past experiences in influencing current race and ethnic relations. Students from all backgrounds engage in constructive debates and critical thinking and work diligently with dedicated faculty to develop strategies for harmonious living.

The Ethnic Studies Program offers the undergraduate degrees through the field major and the Bachelor of General Studies options. A minor in Ethnic Studies is also offered at the undergraduate level. A field major requires 18 hours of coursework including ETH 100, 210, 320, 331, 333, 380, 381, 384, or 400. A minor in ethnic studies consists of at least 18 hours. The courses are to be approved by the student's advisor in the program.

Lower-Division Courses

> ETH S 100. Introduction to Ethnic Studies (3). General education introductory course. Orientation to the nature and scope of ethnic studies. Emphasizes the unique nature of the experience of ethnic groups in this country. Also studies communication and its relationship to behavior in the United States.

> ETH S 210. Fundamentals of Cross-Cultural Communications (3). General education introductory course. Examines the effects of different cultures on language and methods of communicating. Also studies communication and its relationship to behavior.

ETH S 240. Ethnic Women in America (3). Cross-listed as WCM S 240. An examination of the lives, talents, and contributions made by ethnic women to the American culture. Analyzes the misconceptions about ethnic women that have been generated and perpetuated through the ages. To help people relate better to ethnic women in America and understand their attitudes, sensitivities, and emotions.

Upper-Division Courses

ETH S 320. Martin Luther King (3). Studies the life and philosophy of the Rev. Dr. Martin Luther King, Jr. Emphasizes Dr. King's motivation, obstacles he faced, and the impact of his life on the civil rights movement and race relations in the United States.

> ETH S 332. The Native American (3). General education further study course. Cross-listed as HIST 332. An introduction of the ethnic experience from the 1500s to the 1920s. Themes include the context of emigration, immigration laws, nativism and exclusion, adaptation and acculturation, community development, and political empowerment.

> ETH S 333. The Black Family (3). General education further study course. Examines the fictional and factual images of black American families from slavery to the present. Focuses on the adaptive abilities of poor, working class, and middle class black families. Prerequisites: ETH S 100, 210, or instructor's consent.

> ETH S 334. The Native American (3). General education further study course. Examines contemporary issues facing the Native American focusing on the Osage tribe. Prerequisites: ETH S 100, 210, or instructor's consent.

> ETH S 336. Ethnic America in the Twentieth Century (3). General education further study course. Cross-listed as HIST 336. An in-depth study of the ethnic experience in the twentieth century. Major historical topics include identity formations, inter-generational conflict, class differentiation, and social mobility; the politics of ethnicity, resistance, and opening movements; the racialization of immigration laws; and transnationalism.

ETH S 350. Workshop (1-4). Focuses on the nature and scope of ethnic studies. Emphasizes the unique nature of the experiences of specific American ethnic groups.

> ETH S 355. Special Populations in the Criminal Justice System (3). Cross-listed as CJ S 355. General education further study course. Examines the role of women and minorities as employees of the criminal justice system. Examines the role of women, minorities, juveniles, and older citizens as individuals who commit crimes are apprehended and sanctioned by the criminal justice system. Considers the unique challenges of each of the four identified populations, including their interactions with law enforcement, the judiciary, and corrections.

> ETH S 360. Dealing with Diversity (3). General education further study course. Discusses the pluralistic nature of U.S. society. Equips students with skills to live and work within a diverse society, with particular attention to the global community.

> ETH S 361. Prominent Ethnic People in the Making of America (3). General education further study course. Explores, compares, and contrasts ethnic thought and processes for social, economical, and political reform. Delves into the social perceptions of prominent American ethnic people as portrayed in popular novels, biographies, autobiographies, and rhetoric, etc. Prerequisite: ETH S 100.

ETH S 370. The Black Experience in America (3). Examines the status of blacks in American society. Emphasizes the status of blacks in the current and historical social, economic, and political framework of this country. Prerequisites: ETH S 100, 210, or instructor's consent.

ETH S 380. Native American Tribal Systems (3). An overview of three tribes from different parts of the U.S. Covers historical background, discussion of governments, and information about culture and prominent individuals through lecture, discussion, and movies.

ETH S 381. Special Topics (1-3). Detailed study of topics in ethnic studies with particular emphasis established according to the instructor's expertise. Prerequisite: ETH S 100.


ETH S 400. The Black Child (3). Examines the historical impact of the black experience on black childhood, growth, and development. Emphasizes the social, educational, and psychological theories, perspectives, and interventions applied to black childrearing. Exposes student to good practices at home and in urban communities that build a healthy sense of self among children. Focuses on contemporary issues and concerns of parents, professionals, and others assisting black children with the transition into adult life. Prerequisites: ETH S 100, 210, or equivalent, or instructor's consent.


ETH S 490. The African American Male (3). Examines the impact of racism on the role and lifestyle of the African American male in American society. Prerequisites: ETH S 100, 210, or instructor's consent.

ETH S 491. Cooperative Education (1-4). Allows the student to examine the impact of minority status in the work environment. Examines interpersonal interactions, communication, and acceptance in and adjustment to the multicultural work environment. Offered Cr/NCr only. Prerequisite: program consent.

ETH S 491. Urban Seminar (3). Explores students to contemporary literature on urban problems in the context of the Wichita community. Instructors and neighborhood leaders familiarize students with the history, demographics, and culture of the neighborhood. Students required to devote 15 hours per week for three months with a neighborhood-based agency. WSU will make a $3/hour tuition (in-state only) gift to the student upon acceptance to the course. Prerequisites: 1000 GPA; must be currently enrolled in at least 3 hours in addition to ETH S 491; ETH S 100 or 210 or instructor's permission.

Courses for Graduate/Undergraduate Credit

ETH S 501. Integrity in Public Service (3). Cross-listed as CJ S 501, GERON 502, P ADM 501. Explores the student to basic principles of personal and professional integrity and how those principles apply to their daily life as a member of the community and as an employee of a government or social
of aging and its impact on individuals, families, and society to students preparing for or engaged in careers in which they will plan, manage, and deliver services for the aging through public- or private-sector organizations, agencies, or institutions.

The gerontology program offers the undergraduate degrees through the Field Major and Bachelor of General Studies options. A minor in Gerontology is also offered at the undergraduate level. The Master of Arts degree in gerontology is offered at the graduate level.

Recommended Courses for BGS/Field Study Major (18 hrs.)

GERON 100Q, Introduction to Gerontology ............................................. 3
GERON 404, Psychology of Aging ......................................................... 3
GERON 501, Field Experience (or elective) ............................................. 3
GERON 513, Sociology of Aging .............................................................. 3
GERON 518Q, Biology of Aging ................................................................. 3
GERON 560, The Aging Network ................................................................. 3

Minor. The minor in gerontology consists of at least 15 hours of gerontology courses, including GERON 100 and 560, and 9 hours selected from the following: GERON 401, 404, 513, and 518Q.

Lower-Division Courses

GERON 100, Introduction to Gerontology (3). A multidisciplinary overview of the field of aging, with attention to cultural, social, psychological, biological, and economic factors which influence the circumstances of the elderly.

GERON 150, Workshop in Gerontology (1-3). Provides specialized instruction, using a variable format in a gerontologically relevant subject. Repeatable for credit.

Upper-Division Courses

GERON 401, Aging, Work, and Retirement (3). Examines the impact of population aging upon the nation; income and poverty among the elderly; retirement and work choices; the impact of lifetime income, Social Security, Medicare, private pensions, and health on the income security of the elderly. Prerequisite: GERON 100.

GERON 402, Computer and Statistical Applications (3). Cross-listed as CJ 402, ETH 5402, and P ADM 402. Introduces computer and statistical applications used in public agencies. Emphasizes availability and use of data sources, quantitative decision-making techniques, and interpretation of statistical analyses. Prerequisite: MATH 111 or equivalent.

GERON 404, Psychology of Aging (3). Cross-listed as PSY 404. An examination of the issues surrounding the adult aging process. Includes personality and intellectual change, mental health of the elderly, and the psychological issues of extending human life. Emphasizes the strengths of the elderly and prevention of psychological problems of the elderly. Prerequisite: PSY 111.


GERON 481, Cooperative Education (1-3). Provides practical field experience, under academic supervision, that complements and enhances the student's academic program. Repeatable up to 6 hours. Offered Co/NC only. Prerequisites: GERON 100 and instructor's consent.

Courses for Graduate/Undergraduate Credit

GERON 501. Field Experience (3-6). A supervised field experience in an agency or organization planning or providing services to older people, individually designed to enhance each student's skills and knowledge of the aging service network. Repeatable for 6 hours credit. Prerequisite: 12 hours of gerontology credit and instructor's consent.

GERON 502. Integrity in Public Service (3). Cross-listed as CJ 501, ETH 501, or P ADM 501. Explores the student to basic principles of professional and personal integrity and how those principles apply to their daily life as a member of the community and as an employee of a government or social service agency. Employs a case study method, using cases and examples from a wide range of government and non-profit agency experiences. Students become aware of the moral and ethical issues which may arise in their professional and personal lives; begin to develop critical thinking and analytical skills regarding ethical behavior; and become more personally and professionally responsible. Prerequisite: junior- or senior-level or instructor's permission.

GERON 532. Women in Ethnic America (3). General education further study course. Cross-listed as HIST 532 and WOM S 532.

An in-depth, thematic understanding of the historical experiences of women of color across space and time in U.S. history. Employing a female-centered framework of analysis, course explores the intersections of race, class, gender, and sexuality in women's lives.


ETH S 545. Cross-Cultural Communications Theory (3). An examination of current cross-cultural communication theory and its impact on contemporary cross-cultural issues.

ETH S 550. Individual Projects (5). Student conducts independent research related to a specific ethnic group. Prerequisite: 50 hours of Wichita State credit or program consent. Repeatable for a total of 6 hours.


ETH S 725. Concepts of Cross-Cultural Communications (3). A critical survey of the concepts of cross-cultural communications. An in-depth examination of the rationale used to evaluate different ethnic groups' language and behavior. Course provides a conceptual understanding of special implications and necessary adaptations of communications to, between, and among diverse ethnic groups in our society.

ETH S 750. Workshop (1-4). Focuses on the nature and scope of ethnic studies. Emphasizes the unique experiences of ethnic groups in this country.

Gerontology (GERON)

The instructional mission of degree programs in gerontology at Wichita State is to provide knowledge and understanding of aging and its impact on individuals, families, and society to students preparing for or engaged in careers in which they will plan, manage, and deliver services for the aging through public- or private-sector organizations, agencies, or institutions.

The gerontology program offers the undergraduate degrees through the Field Major and Bachelor of General Studies options. A minor in Gerontology is also offered at the undergraduate level. The Master of Arts degree in gerontology is offered at the graduate level.

Recommended Courses for BGS/Field Study Major (18 hrs.)

GERON 100Q, Introduction to Gerontology ............................................. 3
GERON 404, Psychology of Aging ......................................................... 3
GERON 501, Field Experience (or elective) ............................................. 3
GERON 513, Sociology of Aging .............................................................. 3
GERON 518Q, Biology of Aging ................................................................. 3
GERON 560, The Aging Network ................................................................. 3

Minor. The minor in gerontology consists of at least 15 hours of gerontology courses, including GERON 100 and 560, and 9 hours selected from the following: GERON 401, 404, 513, and 518Q.

Lower-Division Courses

GERON 100, Introduction to Gerontology (3). A multidisciplinary overview of the field of aging, with attention to cultural, social, psychological, biological, and economic factors which influence the circumstances of the elderly.

GERON 150, Workshop in Gerontology (1-3). Provides specialized instruction, using a variable format in a gerontologically relevant subject. Repeatable for credit.

Upper-Division Courses

GERON 401, Aging, Work, and Retirement (3). Examines the impact of population aging upon the nation; income and poverty among the elderly; retirement and work choices; the impact of lifetime income, Social Security, Medicare, private pensions, and health on the income security of the elderly. Prerequisite: GERON 100.

GERON 402, Computer and Statistical Applications (3). Cross-listed as CJ 402, ETH S 402, and P ADM 402. Introduces computer and statistical applications used in public agencies. Emphasizes availability and use of data sources, quantitative decision-making techniques, and interpretation of statistical analyses. Prerequisite: MATH 111 or equivalent.

GERON 404, Psychology of Aging (3). Cross-listed as PSY 404. An examination of the issues surrounding the adult aging process. Includes personality and intellectual change, mental health of the elderly, and the psychological issues of extending human life. Emphasizes the strengths of the elderly and prevention of psychological problems of the elderly. Prerequisite: PSY 111.


GERON 481, Cooperative Education (1-3). Provides practical field experience, under academic supervision, that complements and enhances the student's academic program. Repeatable up to 6 hours. Offered Co/NC only. Prerequisites: GERON 100 and instructor's consent.

Courses for Graduate/Undergraduate Credit

GERON 501. Field Experience (3-6). A supervised field experience in an agency or organization planning or providing services to older people, individually designed to enhance each student's skills and knowledge of the aging service network. Repeatable for 6 hours credit. Prerequisite: 12 hours of gerontology credit and instructor's consent.

GERON 502. Integrity in Public Service (3). Cross-listed as CJ 501, ETH S 501, or P ADM 501. Explores the student to basic principles of professional and personal integrity and how those principles apply to their daily life as a member of the community and as an employee of a government or social service agency. Employs a case study method, using cases and examples from a wide range of government and non-profit agency experiences. Students become aware of the moral and ethical issues which may arise in their professional and personal lives; begin to develop critical thinking and analytical skills regarding ethical behavior; and become more personally and professionally responsible. Prerequisite: junior- or senior-level or instructor's permission.

GERON 532. Women in Ethnic America (3). General education further study course. Cross-listed as HIST 532 and WOM S 532.

An in-depth, thematic understanding of the historical experiences of women of color across space and time in U.S. history. Employing a female-centered framework of analysis, course explores the intersections of race, class, gender, and sexuality in women's lives; begin to develop critical thinking and analytical skills regarding ethical behavior; and become more personally and professionally responsible. Prerequisite: junior- or senior-level or instructor's permission.

GERON 560, The Aging Network (3)....

Liberal Arts & Sciences
chosen in consultation with the instructor. Prerequisite: a basic course in biology that satisfies the general education requirements.

GERON 520. Family and Aging (3). Cross-listed as SOC 520. An analysis of the families and family systems of older people. Emphasizes demographic and historical changes, widowedness, caregiving, and intergenerational relationships as these relate to the family life of older people. Prerequisites: GERON 100, SOC 111, or junior standing.

GERON 550. Selected Topics in Gerontology (1-6). Study in a specialized area of gerontology with the focus upon preprofessional programs and current issues in the field of aging. Emphasizing knowledge and skills in applied areas of gerontology as they relate to an emerging area of research and application. Repeatable up to 6 hours. Prerequisite: instructor's consent.

GERON 551. Workshop (3). Specialized instruction using a variable format in relevant gerontology subjects. Repeatable for credit up to 6 hours.

GERON 560. The Aging Network (3). An overview of federal, state, and local programs concerned with planning, managing, or direct delivery of services to the older population. Prerequisite: 9 hours of gerontology credit or instructor's consent.


GERON 651. Dispute Resolution (3). Cross-listed as CJ 651, ETH S 651, and P ADM 651. Examines a range of topics including conflict, typologies, communications, mediation, arbitration, and other dispute resolution techniques. Includes criminal and victim mediation and both intergroup and interorganization relations and dispute resolution techniques. Analyzes case studies.

GERON 663. Economic Insecurity (3). Cross-listed as ECON 663. Personal economic insecurity, such as unemployment, old age, health care, displacement, and erratic economic fluctuations. Includes costs and benefits of government action to aid in meeting such insecurities. Prerequisites: ECON 202 or instructor's consent, and junior standing.

GERON 700. Grant Proposal Preparation (3). Concerned with the process of research and project proposal development, including response to published guidelines, project planning, and proposal development and submission. Examines grant funding, including types of funding sources and their purposes and methods and processes of proposal evaluation. Students write and evaluate proposals.

GERON 702. Research Methods (3). Cross-listed as CJ 702, ETH S 702, P ADM 702. Acquaints students with applied public policy research methods. Emphasizes locating, collecting, analyzing data, and utilizing both primary and secondary sources of data in the type used in policy, planning, and administrative research. Students must complete several short research projects.

GERON 715. Adult Development and Aging (3). Explores the life cycle of adults and to the aging process. Using an interdisciplinary perspective, the course examines the process of change, transition, growth, and development across the adult lifespan. Prerequisites: GERON 508 or 6 hours of gerontology.

GERON 728. Independent Readings in Gerontology (1-3). Directed study in a specialized topic in gerontology. Repeatable up to 6 hours. Prerequisite: 12 hours of gerontology credit and departmental consent.

GERON 750. Workshop in Gerontology (1-3). Provides specialized instruction, using a variable format in a gerontology-related subject. Repeatable for credit.

GERON 781. Cooperative Education (1-6). Provides practical field experience, under academic supervision, that is suitable for graduate credit and complements and enhances the student's academic program. Repeatable up to 6 hours. Prerequisites: 12 hours of gerontology and instructor's consent.

GERON 798. Multidisciplinary Perspectives on Aging (3). Introduction to the advanced study of the process of aging from a multidisciplinary point of view. Not open to students with an undergraduate major or minor in gerontology. Prerequisite: admission to Graduate School.

Please see the Graduate Catalog for courses numbered 800 and above.

Computer Science (CS)

The Department of Computer Science offers a broad and flexible curriculum that emphasizes core computer science technologies and their applications. Students may earn either the Bachelor of Science (BS) or the Bachelor of Arts (BA) degree in computer science. Both degrees provide in-depth preparation for professional work in business, industry, or government. The BS degree also provides a good preparation for graduate study in computer science or related areas.

Students must take a minimum of twelve credit hours of computer science core courses or advanced computer science electives in residence at Wichita State University to qualify for a computer science Bachelor of Science or Bachelor of Arts degree.

Major: Bachelor of Science (BS)
1. Computer science: The following computer science courses are required: 211, 212, 300, 312, 320, 410, 411, 501, 540, 510, 540. This mix of theoretical and practical courses establishes a strong foundation for advanced courses in the discipline. In addition, students complete 15 hours of required courses in advanced electives in computer science. These 15 hours provide students with a depth and breadth of knowledge, beyond what they receive in core courses, by exposing them to advanced topics in some of the major areas of computer science. Advanced courses fall in seven areas: artificial intelligence, software engineering, theoretical computer science, computer systems, computer hardware, information systems, and symbolic and numeric computation. The choice of advanced electives should span at least three of these areas.

2. Mathematics: The following required mathematics courses add strength to the major in computer science.
MATH 242, MATH 243, and STAT 460.

3. Science: The science requirement for the BS degree provides a solid grounding in scientific studies, including the concepts of the scientific method and the practical skills acquired in a one-semester lab sequence.

Choose one of the following options:
A. BIOL 210 (4)
   BIOL 211 (4)
   Any one of the following:
   CHEM 111 (5)
   GEOL 111 (4)
   PHYS 213 (5)
   PHYS 313 (4)
B. PHYS 313 (4)
   PHYS 315 (4)
   PHYS 314 (4)
   PHYS 316 (4)
   ANTH 101 (3) or BIOL 210 (4)
C. CHEM 111 (5)
   CHEM 112 (5)
   ANTH 103 (3) or BIOL 210 (4)
D. GEOL 111 (4)
   GEOL 112 (4)
   ANTH 101 (3) or BIOL 210 (4)
E. PHYS 213 (5)
   PHYS 214 (5)
   ANTH 101 (3) or BIOL 210 (5)
   ANTH 106 (1)
   One additional course chosen from any option.
F. PHYS 213 (5)
   PHYS 214 (5)
   ANTH 101 (3) or BIOL 210 (5)

5. Additional required course for CS majors: PHIL 354: Ethics and Computers, gives students an ethical context for their professional work.

Major: Bachelor of Arts (BA)
1. Computer science: The following required core computer science courses provide a good foundation for the discipline: 105, 210, 211, 300, 312, 320, 410, 411, 501, 540.

2. Mathematics: The following required mathematics courses add strength to the major in computer science:
MATH 111, MATH 144, and STAT 370.

3. Engineering: ECE 194
4. Additional required course for the major: PHIL 354, Ethics and Computers, gives students an ethical context for their professional work. ENGL 210, Composition: Business, Professional, and Technical Writing, improves students’ workplace communication.

5. Sequence electives: In addition, students complete 15 hours of sequence electives. These courses can be chosen from fields such as computer science information systems, software engineering, systems analysis, or some application area such as business administration. Other choices are also possible. Students should choose sequence electives in consultation with and with the approval of the departmental academic advisor.

Minor

The minor provides a valuable addition to other majors and can help a student demonstrate ability in the computer science discipline. Students complete a required minimum of 18 hours of computer science courses. These 18 hours must include CS 210, CS 211, and two CS courses numbered above 300. CS workshops are not counted toward meeting the minor requirements. Also, students may count no more than one 497 course toward the minor.

Example Schedule for BS in Computer Science

Students must complete ENGL 100 or ENGL 101 and MATH 111, College Algebra, with a C or better, or have equivalent CLEP or transfer credit before taking any computer science courses toward the BS degree.

First Semester

ENGL 101, College English I (lower than 30 credit hours earned) ........................................ 3
MATH 242, Calculus I ........................................ 5
COMM 111, Public Speaking .................................. 3

Second Semester

ENGL 102, College English II .................................. 3
CS 210, Introduction to Computer Science .................. 4
CS 211, Problem Solving and Programming in C .............. 4
MATH 243, Calculus II .......................................... 3

Senior Year

(60-89 credit hours earned)

Advanced CS elective ............................................. 3
Advanced CS elective ............................................. 3
Humanities Introductory course (literature) ...................... 3
Social and Behavioral Sciences Further Study or Issues and Perspectives course (PHIL 354) ...... 3
Elective .................................................................. 3

Third Semester

ENGL 102, College English II .................................. 3
CS 210, Introduction to Computer Science .................. 4
CS 211, Problem Solving and Programming in C .............. 4
MATH 144, Business Calculus .................................... 3

Second Semester

ENGL 102, College English II .................................. 3
CS 210, Introduction to Computer Science .................. 4
CS 211, Problem Solving and Programming in C .............. 4
MATH 144, Business Calculus .................................... 3

Sophomore Year

(30-59 credit hours earned)

CS 300, Data Structures and Algorithms I ................. 4
CS 320, Discrete Structures in Computer Science .......... 4
Math 243, Calculus III ............................................ 3

Second Semester

CS 500, Operating Systems ...................................... 3
Advanced CS elective ............................................. 3
'Technology elective .............................................. 3
Humanities Introductory course (literature) ...................... 3
Social and Behavioral Sciences Further Study or Issues and Perspectives course (PHIL 354) ...... 3
Elective .................................................................. 3

Freshman Year

(30-59 credit hours earned)

ENGL 101, College English I .................................. 3
MATH 242, Calculus I ............................................. 5
First Natural Science course ........................................ 4-5
COMM 111, Public Speaking .................................. 3

Second Semester

ENGL 102, College English II .................................. 3
CS 210, Introduction to Computer Science .................. 4
CS 211, Problem Solving and Programming in C .............. 4
MATH 243, Calculus II .......................................... 3

Sophomore Year

(30-59 credit hours earned)

American Government (HIST 131 or 132 or POL 121) (HIST is Humanities; POL is Social and Behavioral Sciences) .... 3

Second Semester

ENGL 102, College English II .................................. 3
CS 210, Introduction to Computer Science .................. 4
CS 211, Problem Solving and Programming in C .............. 4
Foreign language ................................................. 3

Junior Year

(60-89 credit hours earned)

CS 410, Programming Paradigms .................................. 3
CS 411, Object Oriented Programming ......................... 3
STAT 370, Elementary Statistics .................................. 3

Second Semester

CS 510, Programming Language Concepts ..................... 3
Advanced CS elective ............................................. 3
Advanced CS elective ............................................. 3
Humanities Introductory course (literature) ...................... 3
Social and Behavioral Sciences Further Study or Issues and Perspectives course (PHIL 354) ...... 3
Elective .................................................................. 3

Example Schedule for BA in Computer Science

Students must complete ENGL 100 or ENGL 101 and MATH 111, College Algebra, with a C or better, or have equivalent CLEP or transfer credit before taking any computer science courses other than CS 105.

First Semester

(30-59 credit hours earned)

ENGL 101, College English I .................................. 3
MATH 111, College Algebra ...................................... 3
CS 105, An Introduction to Computers and their Applications ........................................ 3
COMM 111, Public Speaking .................................. 3
American Government (HIST 131 or 132 or POL 121) (HIST is Humanities; POL is Social and Behavioral Sciences) .... 3

Second Semester

ENGL 102, College English II .................................. 3
CS 210, Introduction to Computer Science .................. 4
CS 211, Problem Solving and Programming in C .............. 4
Foreign language ................................................. 3

Sophomore Year

(30-59 credit hours earned)

CS 300, Data Structures and Algorithms I ................. 4
CS 320, Discrete Structures in Computer Science .......... 4
MATH 144, Business Calculus .................................... 3

Second Semester

CS 312, Assembly Language and Systems Programming .......... 3
CS 410, Programming Paradigms .................................. 3
CS 411, Object Oriented Programming ......................... 3
STAT 460, Elementary Probability and Mathematical Statistics ........................................ 3

Second Year

(90 credit hours earned)

CS sequence elective ............................................. 3

Senior Year

(90 credit hours earned)

CS sequence elective ............................................. 3

Second Semester

CS 540, Operating Systems ...................................... 3
CS sequence elective ............................................. 3

Junior Year

(60-89 credit hours earned)

CS 410, Programming Paradigms .................................. 3
CS 411, Object Oriented Programming ......................... 3

Second Semester

CS 510, Programming Language Concepts ..................... 3

Choice depends on American Government selection. If HIST 131 or 132 is taken to fulfill the American Government requirement, this choice needs to be a Social and Behavioral Science course. If POL 121 is taken to fulfill the American Government requirement, this choice can be an elective course.
Programming Courses
No credit toward BS Degree in Computer Science
CS 201. FORTRAN Programming (3; 2R; 2L. Fundamentals of computer programming in FORTRAN and their application to problems. No credit toward the BS in computer science. Prerequisites: ENGL 101 and MATH 111 or 112, or equivalents, with a C or better, or departmental consent.

CS 203. Visual BASIC (3). Fundamentals of computer programming in Visual BASIC and their application to problems. No credit toward the BS in computer science. Prerequisites: ENGL 101 and MATH 111 or 112, or equivalents, with a C or better, or departmental consent.

CS 205. COBOL Programming (3). 2R; 2L. Fundamentals of computer programming in COBOL and their application to problems. No credit toward the BS in computer science. Prerequisites: ENGL 101 and MATH 111 or 112, or equivalents, with a C or better, or departmental consent.

CS 206. BASIC Programming (3). 2R; 2L. Fundamentals of computer programming in BASIC and their application to problems. No credit toward the BS in computer science. Prerequisites: ENGL 101 and MATH 111 or 112, or equivalents, with a C or better, or departmental consent.

CS 207. C Programming (3). 2R; 2L. Fundamentals of computer programming in C and their application to problems. No credit toward the BS in computer science. Prerequisite: C or better in a high-level programming language course, or departmental consent.

CS 217. C++ Programming (3). 2R; 2L. Fundamentals of object-oriented programming in C++ with applications to problems. No credit toward the BS in computer science. Prerequisite: CS 207 or 211 with a C or better or departmental consent.

Upper-Division Course
CS 300. Advanced Visual BASIC (3). Advanced concepts of Visual BASIC, particularly database topics including ADO (ActiveX Data Objects), Data Report Designer, the SQL query language, creating ActiveX Controls, and object-oriented programming. No credit toward the BS in computer science. Prerequisite: CS 203 with a C or better or departmental consent.

Lower-Division Courses
CS 105. Introduction to Computers and their Applications (3). 2R; 3L. General education introductory course. A computer literacy course introduces students to the Internet and other networks, multimedia, CD-ROM, historical development of the computer/uses of the computer in business, industry, government, education, and the home; hardware components of a computer system; data representation; systems analysis and design; and issues of ethics posed by technology. The laboratory section includes hands-on experience with the Internet, Windows, and microcomputer applications packages such as word processors and spreadsheets. No credit granted toward the BS in computer science. Prerequisites: some familiarity with typewriter keyboard and minimal typing skills.

CS 350. Workshop (1-3). Short-term courses focusing on new computer techniques. Repeatable for credit. Prerequisite: departmental consent.

CS 410. Programming Paradigms (3). 3R; 1L. Explores computer programming in various styles of languages. Emphasizes programming rather than theory. Prerequisites: CS 300 and 320 with a C or better in each.


CS 444. Introduction to Unix (3). 3R; 1L. The objective of this course is to learn the fundamentals of the Unix operating system. Topics covered include the Unix file system, essential commands and utilities of Unix, and shell programming. Prerequisite: any high-level programming language with a grade of C or better.

CS 465. Oracle Development Environment (3). 3R; 1L. Oracle is the most widely used database management system in the world. This course will cover basic relational database concepts, the SQL query language, PL/SQL, object creation including indexes, tables, triggers, and stored procedures, Oracle Forms, SQL Loader in the transition of legacy systems and web-enabled applications. Students work with real-life projects. Prerequisite: CS 211 with a C or better or departmental consent.

CS 481. Cooperative Education in Computer Science (1-3). Provides a field placement that integrates theory with planned and supervised professional experience designed to complement and enhance the student’s academic program. Individualized programs must be formulated in consultation with and approved by appropriate faculty programs. Prerequisite: Departmental consent. Offered CR/NC only.

CS 497. Special Topics (1-3). 1-3R; 1L. Special topics of current interest in computer science. Prerequisite: departmental consent.

CS 498. Individual Projects (2-3). Repeatable for a total of 6 hours of credit. Graded S/U only. Prerequisite: departmental consent.

Courses for Graduate/Undergraduate Credit
CS 501. Numerical Programming Techniques (3), 2R; 2L. A study of the programming techniques used to solve nonlinear equations, interpolation, integrate, and solve systems of linear equations. Discusses the implications of finite precision floating point arithmetic. Also covers techniques for initial and boundary value problems in ordinary differential equations. Selected algorithms are implemented on the computer. Prerequisites: MATH 243 and CS 300 with grades of C or better.

CS 510. Programming Language Concepts (3). 3R; 1L. Theoretical concepts in the design and use of programming languages, including scope of declarations, storage allocation, subroutines, modules, formal methods for the description of
CS 560. Operating Systems (3). 3R; 1L. Covers the fundamental principles of operating systems: process synchronization, scheduling, resource allocation, deadlocks, memory management, file systems. Studies a specific operating system in depth. Programming assignments consist of modifications and enhancements to the operating system studied. Prerequisite: CS 300 and 312, each with a C or better.

CS 569. Data Structures and Algorithms II (3). 3R; 1L. Design and analysis of algorithms and proof of correctness. Analysis of space and time complexities of various algorithms including several sorting algorithms: Hashing, binary search trees, and height balanced trees. Algorithm design techniques including divide and conquer, greedy strategies, and dynamic programming. Elementary graph algorithms. Prerequisites: CS 300, CS 339, and Math 243 and STAT 460 with a C or better in each.

CS 612. Systems Programming (3). 2R; 2L. A study of system software including assemblers, disassemblers, macroprocessors, link editors, loaders, language translators, and debuggers. Practical experience in building system software through programming laboratory exercises. Prerequisites: CS 300 and 312 with a C or better.

CS 615. Compiler Construction (3). 2R; 2L. First compiler course for students with a good background in programming languages and sufficient programming experience. Covers overall design and organization of compilers and interpreters, lexical and syntax analysis, construction of symbol tables, scope analysis, type checking, error recovery, run-time organization, intermediate code, and interpretation, code generation, and optimization. Project-oriented course. Emphasizes practical experience gained through the design and implementation of a simplified but non-trivial compiler for a strongly typed, procedural language. The implementation is carried out in a modern systems programming environment. Prerequisite: CS 510 with a C or better.

CS 644. Advanced Unix Programming (3). 3R; 1L. Improves skills in C programming under the Unix environment. Covers file I/O, both buffered and unbuffered, working with the Unix file system, concurrent programming with multiple processes, and process control. Also includes the use of signals and the use of processes. Prerequisite: Math 243 and STAT 460 with a C or better or instructor's consent.

CS 655. Information Delivery on the Internet (3). 3R; 1L. Explores the capabilities of providing information on the World Wide Web. Information is typically provided through some sort of Web site that incorporates static text and the dynamic capabilities of the Web. Learn how to create an interactive Web site through the use of CGI and Java programming and how to interconnect a Web site to databases and generate images on the fly. Java portion covers a wide range of Java language and the Applet interface and utilities. Prerequisite: CS 300 with a C or better or instructor's consent.

CS 665. Introduction to Database Systems (3). 3R; 1L. Fundamental aspects of database systems, including conceptual database design, entity-relationship modeling, and object-oriented modeling; the relational data model and its foundations, relational languages, and SQL (Structured Query Language); logical database design, dependency theory, and normal forms; physical database design, file structures, indices, and decomposition; integrity, security, concurrency control, recovery techniques, and optimization of relational queries. Prerequisite: CS 300 and 320 with a C or better.

CS 680. Introduction to Software Engineering (3). 2R; 2L. An introduction to the body of knowledge, presently available tools and current theories and conjectures regarding the process of program development. Studies these topics from several different viewpoints; ranging from the individual programming statement to a large programming project. Prerequisites: CS 300 and 410, each with a C or better.

CS 684. Applications Systems Analysis (3). 3R; 1L. A study of the methods for analyzing business systems problems and other large-scale applications of the computer. At the crossroads of computer technology, management science and human relations, systems analysis is the keystone in the education of the well-trained computer applications analyst. Includes systems design, cost benefit analysis, data base design, distributed processing, project management, and documentation. Prerequisite: CS 300 with a C or better.

CS 690. Information Systems Engineering (3). Study of information systems design techniques, issues of systems evolution, project management, engineering design, various views of information systems and software, and formal design approaches. Covers structured analysis and design approach, object-oriented approach, software design, database design, rule modeling, user interface design, performance evaluation issues relative to software design, systems evolution aspects from a software maintenance perspective, project management techniques, and information systems engineering. Prerequisite: CS 300 with a C or better.

CS 697. Selected Topics (1-3). 1-3R; 1L. Selected topics of current interest. Repeatable for credit with departmental consent. Prerequisite: departmental consent.

CS 720. Theoretical Foundations of Computer Science (3). 3R; 1L. Provides an advanced level introduction to the theoretical bases of computer science. Computer science theory includes the various models of finite state machines, both deterministic and nondeterministic, and concepts of decidability, computability, and formal language theory. Prerequisites: CS 320 or equivalent with a C or better.

CS 742. Computer Communication Networks (3). 2R; 2L. Introduction to network programming for the Internet environment including the basic concepts of TCP/IP, client-server paradigm, programming of clients, and various types of servers, remote procedure calls, concurrency management, and interconnection techniques. Emphasizes the design principles that underlie implementation of practical applications. Prerequisite: CS 300 with a C or better or departmental consent.

CS 750. Workshop in Computer Science (1-5). Short-term courses with special focus on introducing computer science concepts. Repeatable for credit. Prerequisite: departmental consent.

CS 771. Artificial Intelligence (3). 3R; 1L. Heuristic versus algorithmic methods, principles of heuristic approach, and cognitive processes. Also covers objectives and methods of artificial intelligence research and simulation of cognitive behavior. Includes a survey of appropriate examples from various areas of artificial intelligence research. Prerequisites: CS 300 and 320 with a grade of C or better in each.

CS 781. Cooperative Education in Computer Science (1-3). Practical experience in a professional environment to complement and enhance the student's academic program. For master's level CS students. Repeatable, but may not be used to satisfy degree requirements. Offered On/Off-Campus only. Prerequisites: departmental consent and graduate GPA of 3.000 or above.

CS 786. Individual Projects (1-3). Allows beginning graduate students and mature undergraduate students to pursue individual projects of current interest in computer science. Graded 0-5U only. Prerequisite: departmental consent.

Please see the Graduate Catalog for courses numbered 800 and above.

Criminal Justice
See Community Affairs, School of.

Economics
The economics major in Fairmont College provides excellent preparation for law school, for additional academic study in economics, business, and other fields, and for careers in public service. The study of economics is useful in helping students develop both their skills in critical thinking and their abilities to use analytical tools to solve complex problems. It is a major that lays a foundation for many career paths.

Major. The economics major in Fairmont College requires a minimum of 31 hours and a maximum of 41 hours in economics. MATH 144 or MATH 242 is required. Students who plan to major in economics should consult with the undergraduate advisor in the Department of Economics in Clinton Hall. Enrollment in all upper-division economics classes requires junior standing. Students in this major or minor must achieve a minimum 2.250 GPA. The following courses are required:

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH 144, Business Calculus</td>
<td>3</td>
</tr>
<tr>
<td>MATH 242, Calculus I</td>
<td>3</td>
</tr>
<tr>
<td>ECON 201 and 202, Principles of Economics</td>
<td>6</td>
</tr>
</tbody>
</table>
and II...

ECON 231, Introductory Business Statistics...3
ECON 232, Stat Software Application for Bus...1
ECON 301, Intermediate Macroeconomics...3
ECON 302, Intermediate Microeconomics...3
ECON 340, Money and Banking...3
Upper-division electives...12
ECON 201 and 202 may be taken as part of the Fairmount College general education requirements.

* Prerequisite for ECON 232 is either ACT 260 or CS 105.

Minor. A minor in economics is available to any student whose major field or area of emphasis is outside of economics. A minor consists of 15 hours exclusive of ECON 101, 102, and 231. ECON 201 and 202, or the equivalents, must be included in addition to 9 hours of upper-division economics classes. Nine hours of the economics classes must be in residency at WSU, and a minimum 2.250 GPA is required.

Teaching of Economics. Because Kansas Department of Education regulations governing the licensure of secondary economics teachers are very specific and contain requirements beyond the economics major, students planning to teach economics should contact a secondary social studies advisor in the College of Education for program planning.

Courses. Economics courses are listed in the Barton School of Business section of the Catalog.

English Language and Literature (ENGL)

English Language and Literature

The English department offers a broad and flexible program of courses that are central to a liberal arts education while offering students the opportunity for personal enrichment and a variety of career possibilities. The department offers degree programs in creative writing, literature, and English teaching, as well as a range of courses in linguistics. Students who combine an English major with substantial work in other disciplines will find the knowledge and communication skills acquired in their work in English a valuable asset as they seek entrance into a wide range of fields that include communications, education, government, law, and even business.

Major. A major consists of 33 hours, 3 of which may, with departmental consent, be taken in a cognate subject (such as foreign literature, theatre, and so forth) offered in a course by another department. The coursework must be distributed as follows:

I. Basic Requirements (21 hours)
ENGL 272; ENGL 310; ENGL 320 or 330; ENGL 360; ENGL 361; ENGL 362; ENGL 315.


Minor. A minor consists of 15 hours and requires ENGL 310 and either 320 or 330. Of the remaining 9 hours, at least 6 must be of upper-division work. ENGL 101 and 102 are not counted toward a minor. A number of minors have been especially designed to support majors in other fields; for further information, contact the chairperson of the English department.

Creative Writing

A student planning to major in creative writing must complete ENGL 101 and 102 and thereafter complete 33 hours of coursework in English, including the following courses:

I. Basic Requirements (12 hours)
ENGL 272; ENGL 310; ENGL 320 or 330; ENGL 274 or 315.

II. Major Requirements (9 hours of upper-division work) from ENGL 301, 303, 304, 308, 317, 318, 365, 386, (except for ENGL 303 and 308, all of these courses may be repeated once for credit) or University Honors courses (1-3).

IV. Electives (at least 6 hours)
Upper-division hours from any other area of emphasis within the department.

Minor. A minor with a creative writing sequence is available and consists of 12 hours of creative writing coursework including ENGL 285 and 9 hours of skill courses listed above, plus 3 hours of ENGL 310 or 320 or 330.

Teaching

Students must file a declaration of English teaching major with an assigned English-education advisor at the time they apply to the teacher education program. A 2.50 grade point average in English is required of all majors applying for admission to the professional semester of student teaching in middle and secondary school English.

Major for students planning to teach English in middle schools. The major in the College of Education consists of 18 hours of content courses distributed as follows:

I. Language (6 hours)
ENGL 315 and 317.
II. Composition (6 hours)
ENGL 360.
III. Literature (9 hours)
ENGL 272.

ENGL 330; ENGL 546 or 565.

Major for students planning to teach English in secondary schools. The major in either Fairmount College or the College of Education consists of 33 hours of content courses distributed as follows:

1. Language (6 hours)
ENGL 315 and 317.
II. Composition (3 hours)
ENGL 690.
III. Literature (24 hours)
ENGL 272.
ENGL 310.
ENGL 330.
ENGL 340.
ENGL 346 or 365.
ENGL 350 or 361.
ENGL 362.
ENGL 363.

Composition

Non-credit Courses

ENGL 011. Syntax, Logic, and Organization (6). Offered Cr/NC only. Reviews the basic elements of written English. Combines lecture, small-group discussion, and individual tutoring. For students whose ACT-English scores or placement test scores do not qualify them for ENGL 101. Credit does not apply for graduation.

ENGL 012. Basic Skills for ESL I (3). Offered Cr/NC only. Teaches the fundamental elements of written and spoken English, emphasizing the acquisition of basic grammatical and syntactical structures and the writing of paragraphs.

ENGL 015. Basic Skills for ESL II (3). Offered Cr/NC only. Extends the skills developed in ENGL 012. Students continue to practice using basic grammatical and syntactical structures, work on reading comprehension skills, and move from the writing of paragraphs to short essays. Prerequisite: ENGL 013 or satisfactory score on placement test.

Lower-Division Courses

ENGL 100. English Composition (3). A required core course for non-native speaking students scoring below a certain level as determined by a departmental examination. Emphasizes reading, writing, and thinking skills. Credit does not apply for graduation. Prerequisite: ENGL 013 or satisfactory score on placement test.

>ENGL 101. College English I (3). General education basic skills course. Focuses on developing reading and writing skills appropriate to academic discourse. Integrates the writing process, rhetorical modes, and library skills into writing assignments related primarily to nonfiction readings. Prerequisite: Qualifying score on ACT or placement exam, or successful completion of ENGL 011.
ENGL 102. College English II (3). General education basic skills course. Emphasizes critical reading, research, and argumentation. ENGL 102 should be taken after ENGL 101 in the sophomore year. Prerequisite: ENGL 101, with a C or better.

ENGL 103. Reading, Thinking, and Writing (3). A third semester of English composition. Writing assignments based on literature read during the semester. Reading material varies with instructor, but generally follows a specific theme. Prerequisites: ENGL 101 and 102.

ENGL 150. Workshop (1-4). Reversible for credit. Material varies according to the needs of students.

ENGL 210. Composition: Business, Professional, and Technical Writing (3). Provides instruction and practice in writing the kinds of letters, memorandums, instructions, and reports required in the professional world of business and industry. Emphasizes both formats and techniques necessary for effective and persuasive professional communication. Prerequisites: ENGL 101 and 102.

Upper-Division Course

ENGL 481. Cooperative Education (1-3). Provides the student with practical experience, under academic supervision, that complements and enhances the student’s academic program. Individual programs must be formulated in consultation with appropriate faculty sponsors and approved by departmental consent. Offered Cr/NCR only.

Courses for Graduate/Undergraduate Credit

ENGL 581. Composition Practicum (1). Required for all teaching assistants in English. Does not count for credit toward the MA or MFA degree. Focuses on techniques and strategies for teaching composition. Each participant enrolled in the syllabus group appropriate to the composition course taught or taught during a semester. Graded S/U only. Repeatable for credit. Prerequisite: appointment as a graduate teaching assistant in the Department of English.

ENGL 680. Theory and Practice in Composition (3). Introduces theories of rhetoric, research in composition and writing programs, and practices in schools and colleges. Students investigate the process of writing, analyze varieties and samples of school writing, and develop their own writing skills by writing, revising, and evaluating their own and others’ work. Designed especially for prospective and practicing teachers, and may not be taken for credit by students with credit in ENGL 780.

ENGL 780. Advanced Theory and Practice in Composition (3). For teaching assistants in English. Reviews of new theories of rhetoric, recent research in composition, and new promising developments in composition programs in schools and colleges. Students are given practice in advanced writing problems, situations, and techniques and may propose projects for further special study.

Creative Writing

Lower-Division Course

ENGL 285. Introduction to Creative Writing (3). An introductory course; the techniques and practice of imaginative writing in its varied forms. Course may be used to fulfill the general education requirement only as an elective (studio and performance). Prerequisites: ENGL 101 and 102.

Upper-Division Courses

ENGL 301. Fiction Writing (3). Primary emphasis on student writing. Students study form and technique by reading published works and apply those studies to the fiction they write. Course may be repeated once for a total of 6 hours credit. Prerequisite: ENGL 285 with a B or better.

ENGL 303. Poetry Writing (3). Primary emphasis on student writing. Students study form and technique by reading published works and apply those studies to the poetry they write. Course may be repeated once for a total of 6 hours credit. Prerequisite: ENGL 285 with a grade of B or better.

ENGL 401. Fiction Workshop (3). Advanced course. Manuscripts will be critiqued to develop skill in writing, rewriting, and polishing. Repeatable for credit. Prerequisite: ENGL 301.

ENGL 403. Poetry Workshop (3). Advanced course. Manuscripts will be critiqued to develop skill in writing, rewriting, and polishing. Repeatable for credit. Prerequisite: ENGL 303.

Courses for Graduate/Undergraduate Credit

ENGL 517-518. Playwriting I and II (3 each). Cross-listed as THE 316 and 517. The writing of scripts for performance. Emphasizes both verbal and visual aspects of playwriting. If possible, the scripts are performed. Not repeatable for credit. Prerequisite: instructor's consent.

ENGL 585. Writer's Tutorial: Prose Fiction (3). Tutorial work in creative writing in prose fiction with visiting writer. Repeatable for credit. Prerequisite: consent of creative writing director.

ENGL 586. Writer's Tutorial: Poetry (3). Tutorial work in creative writing in poetry with visiting writer. Repeatable for credit. Prerequisite: consent of creative writing director.

Please see the Graduate Catalog for courses numbered 800 and above.

Linguistics

Upper-Division Courses

ENGL 315. Introduction to English Linguistics (3). General education further study course. Cross-listed as LING 315. Introduction to linguistic principles, including phonological and grammatical concepts.

ENGL 316. English Sentence Structure (3). Cross-listed as LING 316. The basic rules of English syntax, specifically designed for prospective teachers of English but open to all students interested in English sentence structure.

ENGL 317. History of the English Language (3). Cross-listed as LING 317. Linguistic and cultural development of English. Specifically designed for prospective English teachers, but open to all interested students. Prerequisite: ENGL 315 or departmental consent.

ENGL 318. Dialectology (3). Cross-listed as LING 318. An introduction to the study of regional and social dialects of English. The relationship between language and factors such as socioeconomic class, social networks, sex, nationalism, and geography.

ENGL 351. Linguistics and Foreign Languages (3). Cross-listed as ANTH 351 and MLJI 351. Introduces general linguistic principles as they apply specifically to the study of acquisition, and analysis of foreign languages offered as major concentrations at WSU (French, German, Latin, and Spanish). Introduces acoustic phonetics (tongue transcriptions of foreign languages) and principles of phonology, morphology, and syntax and semantics. Prerequisite: LING 151.

Courses for Graduate/Undergraduate Credit

ENGL 667. English Syntax (3). Cross-listed as LING 667 and ANTH 667. Studies the basic principles of English syntax, covering the major facts of English sentence construction and relating them to linguistic theory. Prerequisite: ENGL 315 or equivalent or departmental consent.

ENGL 672. Studies in Language Variety (3). Cross-listed as LING 672. Introduces the student to language variety with special attention to regional and social dialects in America and methods of studying it. May be repeated for credit when content varies. Prerequisite: ENGL 315 or departmental consent.

ENGL 727. Teaching English as a Second Language (2-3). Cross-listed as LING 727. Discusses current methods of teaching English to non-native speakers. Students learn to analyze interlanguage patterns and design appropriate teaching units for class and language laboratory use.

Literature

Lower-Division Courses

ENGL 199A. Writing About Film (3).

ENGL 220. The Literary Heritage: English Masterpieces (3). Introduces the lower-division general student selections from the English masterpieces that constitute the literary heritage.

ENGL 223. Books and Ideas (3). Reading, discussing, and some writing about literature from all periods and cultures (fiction, poetry, drama, and essays). For non-English majors; not credited toward an English major or minor.

ENGL 230. Exploring Literature (3). General education introductory course. Perceptive reading of literature in its major traditional periods and in its various genres (especially fiction, drama, and poetry). Deepens the appreciation and understanding of literature what it is, what it does, and how it does it. Readings are selected with careful attention to the needs and interests of non-English majors and a cultural rather than a technical approach is employed.

ENGL 232. Themes in American Literature (3). General education introductory course. Instruction in perceptive reading through the study of representative works in American fiction, poetry, drama, and the essay. Emphasizes understanding and appreciation of central themes and dominant ideas. Multimedia presentations (films, readings, and recordings), which are closely correlated to the representative works being studied, amplify the scope and range of literature per se.

ENGL 252. Modern American Writers (3). General education further study course. A survey of important works by major American writers since World War I.

ENGL 254. Modern British Literature (3). A survey of important works by major writers of the British Isles, including Ireland, in the 20th century.

ENGL 272. Origins of the Western Literary Tradition (3). General education further study course. A study of the literary forms that first appear in classical and Biblical literature and reappear in the English literary tradition. Readings from mythology, the classics, and elected books of the Bible.

ENGL 274. The Language of Literature (3). An examination of the principles and problems of literary interpretation that are especially related to language structure.

ENGL 275. Studies in Popular Literature (3). General education further study course. Cross-listed as ANTH 275. Studies various forms of popular literature (e.g., revolutionary literature, science fiction, western fiction, detective novel) emphasizing both the literary merit of the work and the way it reflects popular tastes and values. Repeatable for credit with change of content.

ENGL 290. The Bible as Literature (3). Studies the Bible as a literary artifact through extensive readings in both Old and New Testaments. Points out literary techniques and discusses their meaning for the manner of composition of the Bible.

Upper-Division Courses

ENGL 307. Narrative in Literature and Film (3). A comparative aesthetic analysis of the art of narration in literature and especially in film.

ENGL 308. Critical Studies in Film (3). A critical aesthetic analysis of the literary themes, motifs, genres, and sources of film. Notes critical values in the characteristics of film, covering historical, cultural, canonical, and theoretical developments.

ENGL 310. The Nature of Poetry (3). Acquaints the student with the variety of poetic forms and techniques. Notes contributions of culture, history, and poetic theory as background to the works under study, but primarily emphasizes the characteristics of poetry as a literary communication.

ENGL 310. The Nature of Drama (3). General education further study course. Acquaints the student with dramatic as a form of literary expression. While introducing a variety of plays drawn from different cultures and historical periods, course focuses on the characteristics of drama, giving some attention to dramatic history and theory.

ENGL 330. The Nature of Fiction (3). General education further study course. Acquaints the student with narrative fiction in a variety of forms: the short story, short novel and novel. Covers works of fiction drawn from different cultures and historical periods; focuses on the characteristics of fiction, giving some attention to historical development and to theories of fiction.

ENGL 336. Women's Personal Narratives (3). Cross-listed as WOM 336. Explores the literary genre of the journal as practiced by both historical and modern women. Examines works by both well-known diarists and little-known notebook keepers. Students complete in-class and out-of-class assignments and are encouraged to do daily work in a journal of their own. Prerequisites: ENGL 101 and 102.

ENGL 340. Major Plays of Shakespeare (3). General education further study course. For students who wish to study the best work of Shakespeare's career in one semester. Students who take this course may take ENGL 315 once for credit.

ENGL 342. American Folklore (3). Cross-listed as ANTH 342. Survey of the types and functions of unwritten traditional materials in the United States, including beliefs, tales, jokes, folk music, customs, and crafts, including some ethnic varieties and the oral form of American culture.

ENGL 343. Great Plains Literature (3). General education issues and perspectives course. Covers literature written about the region from Kansas north into southern Canada and from the Mississippi River to the Rocky Mountains. Texts include works by Willa Cather, O.E. Rolvaag, and Mari Sandoz as well as works by contemporary authors including Native Americans. Topics include contemporary environmental issues and the history of exploration and settlement. Prerequisites: ENGL 101 and 102.

ENGL 345. Studies in Comparative Literature (3). General education further study course. Studies representative works of the western and ancient Near Eastern literary traditions emphasizing the contrastive relationships between themes, types, and structures. Readings may be drawn from one or several periods and may include works of fiction, drama, poetry, epic, romance, satire, and other types.

ENGL 346. American Multicultural Literature (3). Provides broad exposure to the literature of various cultures in the U.S., including African American, Native American, Asian American, Chicana/o, and immigrants from other cultures. Prerequisites: ENGL 101 and 102.

ENGL 347. World Comparative Literature (3). Focuses on emergent, contemporary literatures written in or translated into English from Africa, Asia, Australia, the Pacific and the Americas. Texts may include novels, poetry, plays, essays, films and other forms of creative expression. Prerequisites: ENGL 101 and 102.

ENGL 360. Major British Writers I (3). General education further study course. Covers the primary writers in British literature from the beginnings through the 18th century.

ENGL 361. Major British Writers II (3). General education further study course. Covers the primary writers in British literature from the 19th century to the present.

ENGL 362. American Writers of the 19th Century (3). General education further study course. Studies the major works in different genres by important American writers of the 19th century as they relate to the growth of a national literature.

ENGL 365. African-American Literature (3). General education further study course. A survey course; acquaints the student with the most significant Afro-American writers from the 1700s to the present. Covers early slave narrative and early slave poetry to the Harlem Renaissance; student reading, discussion, and writing begin with the Harlem Renaissance and end with the 1970s. Prerequisites: ENGL 101 and 102.

ENGL 398. Travel Seminar (3). A two-week travel course in Great Britain, including Ireland, Scotland, and Wales, focusing on the connection between literary works and the sights and landscapes that inspired them. Students are assigned readings when they enroll and are required to keep a literary journal. Prerequisite: ENGL 101 and 102.

ENGL 400. The Literary Imagination: The Tragic, Comic, Heroic, Satiric Modes (3). Acquaints the general student with the major modes that have shaped the Western literary tradition. Focuses on the tendency of the imagination to construct different kinds of fictions that produce tragic pleasure from pain and suffering; comic pleasure from human folly.
courses for Graduate/Undergraduate Credit

ENGL 503. Studies in American Literature I (3). The major fiction, poetry, and nonfiction prose of the classic American period. Discussions may include the historical evolution of American letters, the development of the novel and romance, the transcendental period, and the rise of western and regional literatures.

ENGL 504. Studies in American Literature II (3). Fiction, poetry, and drama from the late 19th century to after World War II. Readings also may include literary criticism and other types of nonfiction prose. Discussions cover themes, topics, and literary forms inspired by the social and cultural movements and events of the first half of the 20th century.

ENGL 512. Studies in Fiction (3). Subjects announced each semester. Repeatable for credit.

ENGL 513. Studies in Poetry (3). Subjects announced each semester. Repeatable for credit.

ENGL 514. Studies in Drama (3). Subjects announced each semester. Repeatable for credit.

ENGL 515. Studies in Shakespeare (3). Subjects announced each semester. Repeatable for credit, except by students who take ENGL 340. Prerequisites: junior standing and one college literature course, or instructor's consent.

ENGL 521. Readings in Medieval Literature (3). English and Continental literature, 12th to 15th century. Chaucer, Malory, the Pearl Poet, medieval lyric, drama, epic, romance, and saga. Prerequisites: junior standing and one college literature course, or instructor's consent.

ENGL 522. Readings in Renaissance Literature (3). Sidney, Spenser, Shakespeare (poetry), Donne, Jonson, Milton, and their contemporaries. Prerequisites: junior standing and one college literature course, or instructor's consent.

ENGL 524. Readings in Restoration and 18th Century Literature (3). Swift, Pope, Johnson, and their contemporaries. Prerequisites: junior standing and one college literature course, or instructor's consent.

ENGL 526. Readings in Romantic Literature (3). Blake, Wordsworth, Coleridge, Byron, Shelley, Keats, and their contemporaries. Prerequisites: junior standing and one college literature course, or instructor's consent.

ENGL 527. Readings in Victorian Literature (3). Writers from Carlyle to Yeats studied in relation to political events and the social, scientific, and religious thought of the age. Prerequisites: junior standing and one college literature course, or instructor's consent.


ENGL 533. Studies in Contemporary Literature (3). Modern literature, primarily British and American, since 1950. Subjects announced each semester. Repeatable for credit.

ENGL 535. Literary Images of Women: Diverse Voices (3). Cross-listed as WOM S 535. Explores literature written in English by women of diverse ethnic, racial, class, and other backgrounds, as well as of varying sexual orientations, ages, and degrees of physical ability. Materials analyzed both as literary works and as expressions of women's differences from one another. Works selected on their specific attention to the question of gender as it intersects with other elements of culture.

ENGL 536. Writing by Women (3). Cross-listed as WOM S 536. Explores various themes in critical approaches to literature composed by women writers, especially those whose works have been underrepresented in the literary canon. Genres and time periods covered, critical theories explored and specific authors studied vary in different semesters.

ENGL 537. Contemporary Women's Drama (3). Cross-listed as WOM S 537. Examines contemporary plays by and about women to discover and explore the insights of the various playwrights into the lives and roles of women. In addition to reading and analyzing plays, students write plays of their own.

ENGL 590. Special Studies (1-3). Topic selected and announced by the individual instructor. Repeatable for credit. Prerequisite: departmental consent.

ENGL 610. Old English (3). Cross-listed as LING 610. Studies the Old English language in enough detail to enable the reading of some prose and poetry, including parts of Beowulf in the original. Some literature, including all of Beowulf, is read in translation, with attention to important literary and cultural features of the period.

ENGL 615. Chaucer (3). Chaucer's Canterbury Tales, Troilus and Criseyde, and selected lyrics, with a few works by other late 14th century authors and some critical and historical studies. Focuses on close reading of Chaucer in Middle English. Prerequisites: junior standing and one college literature course, or instructor's consent.

ENGL 681. Editing American English (3). Students master the rules and conventions of grammar, sentence structure, spelling, punctuation, usage, and mechanics; and learn how to apply them while they are revising and editing a written text. Students work as tutors in the Writing Center to learn and understand the practical application of editing rules. Includes instruction in the conventions of editing Standard English (also known as Edited American English) and in methods of effective tutoring. Prerequisites: ENGL 101 and 102.

ENGL 750. Workshop (2-4). Repeatable for credit.

Please see the Graduate Catalog for courses numbered 800 and above.

Ethnic Studies

See Community Affairs, School of.

Film Studies

Wichita State University does not offer a film studies major. Students may earn a certificate in film studies or a minor in film studies.

Certificate in Film Studies

The Certificate in Film Studies requires English 195A (Writing About Film) and 15 additional semester hours in any film-oriented course from any department and disciplines that offer such courses. All 18 hours of study must be completed at Wichita State University. Students must take courses in at least three different disciplines.

ENGL 195A will provide students with a vocabulary and analytical model for evaluating films. When the student progresses to film courses within a variety of disciplines, s(he) will be able to think, talk, and write about films analytically. The certificate will help the student to become competent to teach, review, and converse about film. The certificate is offered both for those students seeking employment in some aspect of film or film criticism or for those wishing to improve their understanding of film.

Students seeking more information about the certificate in film studies should contact Dr. Christopher Brooks in the Department of English.

Film Studies Minor

The film studies minor consists of 18 semester hours from the courses listed below, selected with the approval of the coordinator of film studies. Courses approved for the film studies minor are:

HIST 116, The Way It Was; Western Civ. in Film
ANTHR 150, American Culture in Film
ENGL 195A, Writing About Film
COMM 220, Introduction to Film Studies
ART G 231, Basic Photography (Motion Picture)
ENGL 307, Narrative in Literature and Film
GEOG 210. Introduction to World Geography (3).

GEOG 115. The Holocaust in Film

COMM 304, Studio Video Production
COMM 320, Cinematography
POL S 30W, Topics in Film (film topic varies)
ART G 430, Television for Graphic Design
WOM 5 480A, Hollywood Melodrama
The Women's Film
HIST 449, The Holocaust in Film
WOM 5 523, Feminist Film Criticism
SPAN 515, Classic Spanish Films
COMM 304, Studio Video Production
COMM 604, Field Video Production

*Offered only occasionally.

The film studies minor can prove useful to students majoring in literature, journalism, and speech; it also can appeal to those in fields where some knowledge of mass communication as a cultural phenomenon is desirable, including sociology, history, anthropology, psychology, education, administration, and American Studies. The minor offers opportunities to study film as an art form and to gain experience in media production.

French
See Modern and Classical Languages and Literatures.

Geography (GEOG)
Only courses 201, 235 and 311 are intended as physical science courses. All other geography courses are intended as social science offerings.

Geography Minor. A minor in geography consists of at least 15 hours including GEOG 125 or 201 or the equivalent.

Lower-Division Courses


> GEOG 180. Workshop in Geography (1-4). Short-term courses focusing on geographical problems. Prerequisite: instructor's consent.

> GEOG 201. Physical Geography (3). 3R; 3L. Lab fee. Emphasizes the physical basis of geography, including climate, terrain, soils, landforms, and the sea; economic resources; cartographic elements; introduction to regional studies. Field trips are required at the option of the instructor.

> GEOG 210. Introduction to World Geography (3). General education introductory course (social science). A general survey of world geography including an analysis of the physical, political, economic, historical, and cultural geography of the world's 11 regions.

> GEOG 235. Meteorology (3). 2R; 2L. General education further study course (natural science). Lab fee. An introductory study of the atmosphere and its properties and the various phenomena of weather. Includes a brief survey of important principles of physical, dynamic, synoptic, and applied meteorology. Does not apply toward a major or minor in geography. Requires field trips at the option of the instructor. Prerequisite: instructor's consent.

Upper-Division Course

GEOG 311. Climatology (3). Cross listed as GEOG 311. A study of the average weather around the world. Fundamentals of meteorology will be presented with an emphasis on applying them to climatology. Emphasis on world climate regions, causes of climate variation, and the effects of climate on the environment. This course is designed for those with little or no background in math or science. Prerequisite: GEOG/GEOG 235 or instructor's consent.

Courses for Graduate/Undergraduate Credit

GEOG 310. World Geography (3). A study of world regions including an analysis of each region's physical, political, economic, historical, and cultural geography. Focuses on specific geographical problems for an in-depth study and analysis. Prerequisite: instructor's consent. May not be taken if credit has been received for GEOG 210.

> GEOG 530. Geography of Latin America (3). General education further study course (social science). Physical, political, economic, historical, and human geography of Latin America.

> GEOG 542. Geography of Europe (3). General education further study course (social science). Physical, political, economic, historical, and human geography of Europe.

GEOG 695. Special Studies in Geography (1-3). 3R or 5R; 3L. Lab fee (Lab is included when appropriate.) Systematic study in a selected area of topical interest in geography. Course given on demand; repeatable for credit when content differs. May require field trips. Prerequisite: junior standing.

Geology (GEOG)

Geology is the comprehensive study of the solid Earth, atmosphere, ocean, other planets, and the fossil record of life. It also encompasses the study of the effects of human activities on the Earth's environment and the availability and extraction of natural resources. Earth science is interdisciplinary, and the study of geology frequently employs tools, concepts, and theories from mathematics and the other natural sciences, including chemistry, biology and physics. Geologists work to solve problems of local and global perspectives related to all Earth systems: the study of minerals, rocks, and fossils continues to be an essential and exciting component of a geologist's training.

Through the geology program at Wichita State, students may earn either a Bachelor of Arts (BA) or Bachelor of Science (BS) degree. The program also offers a minor in geology and courses designed to fulfill general education requirements in the natural sciences. Candidates for either the BA or BS degree are required to contribute examples of their coursework and other scholarly achievements to the departmental assessment program. Students also are required to take at least one integrating capstone course, preferably during their senior year. Capstone courses are identified below.

The Department of Geology also offers a Master of Science (MS) degree in geology and, in conjunction with the departments of biological sciences and chemistry, an MS degree in environmental science. For more information about the graduate programs, see the Graduate Catalog.

Through the generosity of its alumni and industry supporters, the geology department proudly awards more than $20,000 annually in scholarships and awards to qualified undergraduate majors and graduate students. Contact the geology department office for a complete listing of scholarship amounts, qualifications, and application procedures.

Active student associations for geology majors are the Greenhouse, an organization of students interested in geology and the Geology Club, the student chapter of the American Association of Petroleum Geologists (AAPG), and Sigma Gamma Epsilon (SGE), the national geology honorary society. These clubs sponsor various extracurricular activities such as field trips, visiting lecturers, short course attendance at academic conferences, and social gatherings.

Geology Major — BA. The BA degree program provides broad training in the Earth sciences for students who wish to combine the geology major with teacher preparation (K-12), environmental studies, land-use planning, science journalism, environmental law, natural resource management/business, or similar majors. The BA degree also is suited to students desiring a degree in geology as an interest later in their college life experience. This program represents a minimum proficiency. Students are strongly advised to elect additional courses in geology and supporting sciences if they are interested in pursuing graduate studies in the geosciences after earning the BA.

A major with the BA requires a minimum of 30 hours in geology, including:

1. Required core courses — 24 hours
   GEOG 102, Earth Science and the Environment, with lab (4) or GEOG 111, General Geology (4) GEOG 302, Earth and Space Sciences (3) GEOG 312, Historical Geology (4) GEOG 329, Mineralogy and Optical Mineralogy (4) GEOG 538, Sedimentary Geology (3) GEOG 544, Structural Geology (3) One of these capstone courses: GEOG 621, Geochemical Cycling (3) GEOG 640, Field Geology (6) GEOG 650, Geohydrology (3) GEOG 678, Geologic Perspectives on Climatic Change (3) GEOG 681, Computer Applications in Geology (3)
to, or at least concurrently with, the required core courses in geology listed above. Students interested in pursuing graduate degrees in environmental science should also consider taking PHYS 213 and 214, BIOL 210 and 418, CHEM 111 and 112, and MATH 242 or earning a BS degree in geology. CS 105 is recommended for students with little experience with computers.

It is recommended that these courses be taken prior to, or at least concurrently with, the required core courses in geology listed above. Students interested in pursuing graduate degrees in environmental science should also consider taking PHYS 213 and 214, BIOL 210 and 418, CHEM 111 and 112, and MATH 242 or earning a BS degree in geology. CS 105 is recommended for students with little experience with computers.

Geology Major—BS. The BS degree program, providing comprehensive training in geology and allied natural sciences, prepares graduates for professional work in industry or government, as well as for graduate study in any field of geoscience or environmental science. This program prepares students for the examination for the professional geologist license. Students who expect to earn the BS in geology within a minimum amount of time (four years as a full-time student) should have completed geometry, trigonometry, two years of algebra, and chemistry in high school.

A major with the BS requires a minimum of 45 hours in geology, including:

1. Required core courses—35 hours
   - GEOL 111, General Geology (3)
   - GEOL 312, Historical Geology (4)
   - GEOL 320, Mineralogy and Optical Mineralogy (4)
   - GEOL 324, Petrology and Petrography (3)
   - GEOL 526, Sedimentary Geology (3)
   - GEOL 540, Field Mapping Methods (2)
   - GEOL 544, Structural Geology (3)
   - GEOL 552, Physical Stratigraphy (3)
   - GEOL 570, Palaeontology (3)
   - Required capstone course: GEOL 640, Field Geology (6)

2. An additional 11 hours of upper-division electives chosen from the Catalog listings for geology to match the student’s career interests and in consultation with an advisor from the geology department. An additional elective capstone course is GEOL 650, Geohydrology (3).

3. Required supporting sciences:
   - MATH 242 and 243, Calculus I and II (10)
   - STAT 370, Elementary Statistics (3)
   - CHEM 111 and 112, General and Inorganic Chemistry (10)
   - PHYS 213 and 214, General College Physics I and II (10) or PHYS 313 and 314, University Physics I and II (8)

It is recommended that these courses be taken prior to, or at least concurrently with, the required core courses in geology listed above. Students interested in pursuing graduate degrees in environmental science should also consider taking BIOL 210 and 418. CS 105 is recommended for students with little experience with computers.

Lower-Division Courses

> GEOL 102, Earth Science and the Environment (3). Cross-listed as GEOG 311. A study of the average weather around the world. Fundamentals of meteorology will be presented with an emphasis on applying them to climatology. Emphasis on world climate regions, cause of climate variations, and the effect of climate on the environment. This course is designed for those with little or no background in math or science. Prerequisite: GEOL/GEOG 201 or instructor’s consent.

> GEOL 312, Historical Geology (3). Cross-listed as GEOG 311. A study of the average weather around the world. Fundamentals of meteorology will be presented with an emphasis on applying them to climatology. Emphasis on world climate regions, cause of climate variations, and the effect of climate on the environment. This course is designed for those with little or no background in math or science. Prerequisite: GEOL/GEOG 201 or instructor’s consent.

> GEOL 311, Climatology (3). Cross-listed as GEOG 311. A study of the average weather around the world. Fundamentals of meteorology will be presented with an emphasis on applying them to climatology. Emphasis on world climate regions, cause of climate variations, and the effect of climate on the environment. This course is designed for those with little or no background in math or science. Prerequisite: GEOL/GEOG 201 or instructor’s consent.

> GEOL 312, Historical Geology (4). Cross-listed as GEOG 311. A study of the average weather around the world. Fundamentals of meteorology will be presented with an emphasis on applying them to climatology. Emphasis on world climate regions, cause of climate variations, and the effect of climate on the environment. This course is designed for those with little or no background in math or science. Prerequisite: GEOL/GEOG 201 or instructor’s consent.

> GEOL 313, Mineralogy and Optical Mineralogy (4). Cross-listed as GEOG 313. A study of the origins, composition, and structure of the rock-forming minerals with laboratory emphasis on recognition of their typical forms, occurrences, associations, and identification. Also an optical study of thin-section petrography. Prerequisite: GEOL 102 or GEOG 102 or Department permission. Credit not allowed in both GEOG 311 and 313.

> GEOL 314, Petrology and Petrography (4). Cross-listed as GEOG 314. A study of the origin, properties, distribution, and classification of igneous, metamorphic, and sedimentary rocks with emphasis on their hand sample and optical petrography. Prerequisite: GEOL 313.

> GEOL 410, Honors in Geology. Senior thesis for departmental honors. The independent study project on a topic of the student’s choice must be original research or creative work. Repeatable to a maximum of 6 credit hours. Prerequisites: acceptance by the Emory Lindquist Honors Program and departmental approval.

> GEOL 430, Field Studies in Geology (6). Off-campus, systematic study in a selected area of geologic significance. Course is given upon demand and may be repeated for credit. The fee is charged or no background in math or science. Prerequisites: GEOL/GEOG 201 or instructor’s consent.

> GEOL 435, Field Studies in Geology (4). Cross-listed as GEOG 435. A study of the average weather around the world. Fundamentals of meteorology will be presented with an emphasis on applying them to climatology. Emphasis on world climate regions, cause of climate variations, and the effect of climate on the environment. This course is designed for those with little or no background in math or science. Prerequisite: GEOL/GEOG 201 or instructor’s consent.

> GEOL 436, Field Studies in Geology (4). Cross-listed as GEOG 436. A study of the average weather around the world. Fundamentals of meteorology will be presented with an emphasis on applying them to climatology. Emphasis on world climate regions, cause of climate variations, and the effect of climate on the environment. This course is designed for those with little or no background in math or science. Prerequisite: GEOL/GEOG 201 or instructor’s consent.

> GEOL 437, Field Studies in Geology (4). Cross-listed as GEOG 437. A study of the average weather around the world. Fundamentals of meteorology will be presented with an emphasis on applying them to climatology. Emphasis on world climate regions, cause of climate variations, and the effect of climate on the environment. This course is designed for those with little or no background in math or science. Prerequisite: GEOL/GEOG 201 or instructor’s consent.

> GEOL 438, Field Studies in Geology (4). Cross-listed as GEOG 438. A study of the average weather around the world. Fundamentals of meteorology will be presented with an emphasis on applying them to climatology. Emphasis on world climate regions, cause of climate variations, and the effect of climate on the environment. This course is designed for those with little or no background in math or science. Prerequisite: GEOL/GEOG 201 or instructor’s consent.

> GEOL 439, Field Studies in Geology (4). Cross-listed as GEOG 439. A study of the average weather around the world. Fundamentals of meteorology will be presented with an emphasis on applying them to climatology. Emphasis on world climate regions, cause of climate variations, and the effect of climate on the environment. This course is designed for those with little or no background in math or science. Prerequisite: GEOL/GEOG 201 or instructor’s consent.

> GEOL 440, Field Studies in Geology (4). Cross-listed as GEOG 440. A study of the average weather around the world. Fundamentals of meteorology will be presented with an emphasis on applying them to climatology. Emphasis on world climate regions, cause of climate variations, and the effect of climate on the environment. This course is designed for those with little or no background in math or science. Prerequisite: GEOL/GEOG 201 or instructor’s consent.

> GEOL 445, Field Studies in Geology (4). Cross-listed as GEOG 445. A study of the average weather around the world. Fundamentals of meteorology will be presented with an emphasis on applying them to climatology. Emphasis on world climate regions, cause of climate variations, and the effect of climate on the environment. This course is designed for those with little or no background in math or science. Prerequisite: GEOL/GEOG 201 or instructor’s consent.

> GEOL 446, Field Studies in Geology (4). Cross-listed as GEOG 446. A study of the average weather around the world. Fundamentals of meteorology will be presented with an emphasis on applying them to climatology. Emphasis on world climate regions, cause of climate variations, and the effect of climate on the environment. This course is designed for those with little or no background in math or science. Prerequisite: GEOL/GEOG 201 or instructor’s consent.

> GEOL 447, Field Studies in Geology (4). Cross-listed as GEOG 447. A study of the average weather around the world. Fundamentals of meteorology will be presented with an emphasis on applying them to climatology. Emphasis on world climate regions, cause of climate variations, and the effect of climate on the environment. This course is designed for those with little or no background in math or science. Prerequisite: GEOL/GEOG 201 or instructor’s consent.

> GEOL 448, Field Studies in Geology (4). Cross-listed as GEOG 448. A study of the average weather around the world. Fundamentals of meteorology will be presented with an emphasis on applying them to climatology. Emphasis on world climate regions, cause of climate variations, and the effect of climate on the environment. This course is designed for those with little or no background in math or science. Prerequisite: GEOL/GEOG 201 or instructor’s consent.
GEOL 544. Structural Geology (3, 2R, 3L). Stress-strain theory and mechanics of rock deformation, description, and genesis of secondary structural features in crustal rocks resulting from diastrophism, elements of global tectonics, and laboratory solution of geologic problems in three dimensions and time. May require field trips and field problems. Prerequisites: MATH 112 or 123, GEOL 512, and GEOL 524 or 526.

GEOL 552. Physical Stratigraphy (3, 2R; 3L). Description, classification, methods of correlation, and determination of relative ages of stratigraphic rock units; stratigraphic principles and practice; importance and use of biot stratigraphy; the nature of cyclic sedimentation and controls on deposition; elements of sequence stratigraphy; measurement and correlation of stratigraphic sections in outcrops. Requires field trips. Prerequisites: GEOL 312 and 526.

GEOL 560. Geomorphology and Land Use (2). Identification of landforms and their genesis; processes producing landforms; the influence of geomorphology in aspects of natural hazards such as landslides, floods, earthquakes, and volcanic activity; soil erosion; drainage basin modification; coastal and desert environments; mineral resource exploitation; and their effects on human importance of these influences in environmental management and land-use planning. Prerequisites: GEOL 111 or GEOL 102 or GEOL/GEOG 201.

GEOL 562. Regional Geology of the United States (2). A detailed regional survey of the general geology, geomorphology, stratigraphy, and structural geology of the U.S. including its national parks, and their interrelationships. Requires field trips (instructor's option). Prerequisite: GEOL 102 or 111 or GEOL/GEOG 201.

GEOL 564. Remote Sensing Interpretation (3, 2R; 3L). Introduces interpretation techniques for most types of images acquired by remotely positioned means. Physical principles that control various remote sensing processes using the electromagnetic spectra are applied to geology; land-use planning; geography; resource evaluation; and environmental problems. Derivative maps generated from a variety of images. May require field trips. Prerequisite: GEOL 102 or 111 or GEOL/GEOG 201.

>GEOL 570. Paleontology (3, 2R; 3L). General education further study course. Systematic survey of major fossil biological materials, analysis of the origin and evolution of life, and paleoecological interpretation of ancient environments and climates. Includes hand lens and binocular microscopic examination of major fossil biological materials. Includes application of analyzed fossil data to the solution of problems in biogenesis; paleoecology; paleolimnology; and paleoecography. Uses examples from fields of invertebrate, vertebrate and micropaleontology; and paleontology. May require museum and field trips. Prerequisite: GEOL 312.

>GEOL 574. Special Studies in Paleontology (3, 2R; 3L). General education further study course. A systematic study in selected areas of biogenetics and paleontology. Content differs, upon demand, to provide in-depth analysis in the fields of: (A) invertebrate paleontology; (B) vertebrate paleontology; (C) micropaleontology; (D) palynology; and (E) paleocology. Gives appropriate laboratory instruction in the systematic, taxonomy, and biogeological relationships within the selected fields listed. May require field trips. Repeatable for credit to cover all five areas listed.

GEOL 602. Laboratory Methods in Geology (1). Methods of data collection and analysis of geologic samples. Special instruction in the use of (a) scanning electron microscope; (b) X-ray diffraction; (c) atomic absorption spectrophotometry; (d) cathodoluminescence petrography; and (e) other instrumentation. Repeatable for credit. Prerequisite: GEOL 312, 526; or instructor's consent.

GEOL 621. Geochemical Cycling (3). Capstone course. The geochemistry of earth materials and the important geochronological processes; cycles operating on and within the atmosphere, hydrosphere, and lithosphere through time; anthropogenic effects on these cycles today. Prerequisites: GEOL 102 (with lab) or GEOL 111 and CHEM 111; or instructor's consent.

GEOL 630. Field Studies in Geology (2-6). (A) Geology of Kansas: (1-3) (B) Geology and Natural History of Tropical Marine Environments (C). Off-campus, systematic field study in a selected area of geological significance. Course given upon demand; repeatable for credit when local and/or geochronological significance differ. Where appropriate, travel, lodging, and board costs charged. Prerequisite: instructor's consent.

GEOL 640. Field Geology (6). Capstone course. Field investigation of sedimentary, igneous, and metamorphic rock units and their structures. Includes the application of mapping methods in solving geologic problems. Field at an off-campus field camp for five weeks including weekends. Preparation of geologic column sections, maps, and an accompanying report are due on campus during the sixth week. Prerequisite: GEOL 324, 540, 544, and 552.

GEOL 650. Geohydrology (3, 2R; 3L). Capstone course. The hydrologic cycle, physical, and chemical properties of water; fluid flow through permeable media; exploration for and evaluation of groundwater water quality and pollution; and water law. Prerequisites: GEOL 552, MATH 242 and 243; or instructor's consent.

GEOL 657. Earth Science Instructional Methods (3). Practice in teaching an introductory course in the earth sciences. Developing and presenting the latest scientific laboratory techniques and evaluating their effectiveness. May be taken more than once if content and objectives differ. Prerequisite: senior standing and department chairperson's permission.


GEOL 680. Geologic Resources and the Environment (3, 2R; 3L). Occurrence and origin of metallic and nonmetallic economic mineral deposits; laboratory examination of ores and industrial minerals. Occurrence and supply, regeneration, and future demand for water and soil resources; and fossil and nuclear fuels. Studies environmental aspects of resource exploitation and use, generation and disposal of waste, environmental hazards, and remediation. May require field trips. Prerequisite: GEOL 324.

GEOL 682. Petroleum Geology (3, 2R; 3L). The origin, migration, and accumulation of oil and gas in the earth's crust; reservoir trap types in common hydrocarbon fields, origins and types of reservoirs, and distribution of world petroleum supplies. Introduces subsurface study techniques. May require field trips. Prerequisites: GEOL 526 and 552.

GEOL 684. Methods of Subsurface Analysis (2, 1R; 3L). Methods of remotely logging and describing the geology and occurrence of subsurface strata; characterization of subsurface strata, including laboratory analysis of recovered subsurface samples; application to petroleum geology, mining, and environmental geology. Prerequisites: GEOL 312, 526, and 552; or instructor's consent.

GEOL 690. Special Studies in Geology (1-5). Systematic study in selected areas of geology. Offered on demand, repeatable for credit when content differs. Requires laboratory work or field trips (instructor's option). Prerequisite: instructor's consent.

GEOL 698. Independent Study in Geology (1-3). Independent study on special problems in selected areas of geology. In general, (b) mineralogy; (c) petrology; (d) structural; (e) paleontology; (f) economic geology, (g) sedimentation; (j) stratigraphy; (k) geophysics, and (l) petroleum. Requires a written final report. Prerequisite: consent of sponsoring faculty.

GEOL 702. Environmental Science I (3, 3R; 4L). Cross-listed as BIOL 702 and CHEM 702. Advanced theoretical and applied principles of the interdisciplinary study of environmental science. Includes chemical cycling, atmospheric chemistry, and aquatic chemistry, and phase interactions. The laboratory portion addresses local environmental problems from a risk assessment perspective. GEOL 702 and 703 (or equivalent) are required for all graduate students in the master's of environmental science program. Prerequisite: consent of the master's of environmental program or instructor's consent.

GEOL 703. Environmental Science II (3, 3R; 4L). Cross-listed as BIOL 703 and CHEM 703. Advanced theoretical and applied principles of the interdisciplinary study of environmental science. Includes environmental chemical analysis, environmental toxicology, aquatic microbial biodegradation, environmental biochemistry, water treatment, photochemical smog, and hazardous waste chemistry. The laboratory portion addresses local environmental problems from a risk assessment perspective. GEOL 702 and 703 (or equivalent) are required for all graduate students in the master's of environmental science program. Prerequisite: GEOL 702 or instructor's consent.

GEOL 704. Environmental Science Colloquium (1-2). Cross-listed as BIOL 704 and CHEM 704. Students in the master's of environmental science program.
environmental science program are required to enroll two seminars during their program of study. Includes presentations by guest speakers and required readings for class discussion. May also include student involvement in environmentally related community groups and projects. Graded SU only. May be repeated for up to four hours credit.

GEOL 706. Environmental Science Internship (1-6). Cross-listed as BIOL 706 and CHEM 706. Students in the master's program in environmental science may gain interdisciplinary skills in environmental science by participating in applied and/or basic research internship projects with local business, industry, or government agencies. Internship option is an alternative to thesis research for degree requirements. Enrollment in internship projects requires an approved proposal. Completion of an internship for graduation requires a formal oral presentation of the internship activity and a written report. Prerequisites: Environmental Science I and II.

GEOL 720. Geochemistry (3). The chemistry of natural aqueous solutions and their interaction with minerals and rocks; thermodynamics and kinetics of reactions; emphasis on sedimentary environments and environmental problems. Requires some laboratory work. Prerequisites: Geol 324 and Chem 112 or instructor's consent.

GEOL 724. Soils (3). Geologic analysis of soil types, their formation, occurrence, and mineralogy; soil management and conservation; environmental aspects of soil occurrence including stability studies, pollution, and reclamation.

GEOL 725. Clay Mineralogy (3). 2R; 3L. An evaluation of compositional and structural elements of clay-mineral families, related phyllosilicates and associated diagenetic authigenic minerals in sedimentary environment. Also laboratory identification and classification of minerals by x-ray powder diffraction and thermal analysis. Prerequisite: Geol 526.

GEOL 726. Carbonate Sedimentology (3). 2R; 3L. The origin and genetic description of carbonate particles, sediments and rocks, mineralogy and textural classifications; depositional environments in carbonate rocks and analysis of modern and ancient depositional system. May require field trips. Prerequisites: Geol 526, 552, or equivalents.

GEOL 727. Carbonate Diagenesis (3). 2R; 3L. Analyzes diagenesis of carbonate sediments and rocks. Includes mineralogic stability in natural waters, meteoric, marine and deep-marine diagenesis, dolomitization processes and products; trace-elements and isotopes as diagenetic tools, cathodoluminescence and x-ray diffraction studies of carbonates; origin and porosity. Prerequisite: Geol 726 or instructor's consent.

GEOL 730. Perspectives: Geoscience and the Environment (3). A perspective of global issues of geo-environmental concern with regard to past, present, and future exploration, use, and availability of earth's resources; marine and terrestrial pollution and resource use; water, minerals, and fuel resources; population growth and resource availability; the greenhouse effect, global climatic change, and sea level rise and their effects on populations; future trends in environmental management and remediation of environmental problems of geologic scope. Prerequisite: Geol 312, 680; or instructor consent.

GEOL 740. Basin Analysis (3). A practical course in analysis of petroleum-bearing or other sedimentary basins; emphasizes detailed subsurface mapping to document depositional, tectonic, and burial history of sedimentary basins; subsurface lithologic and geochemical sample analysis and evolution of sedimentary facies systems and hydrocarbons maturation history. Includes compilation of existing data to determine geologic evolution of basins. Prerequisites: Geol 682, 684, or instructor's consent.

GEOL 745. Advanced Stratigraphy (3). Analysis of stratigraphic sequences at the local to global scales in terms of sequence stratigraphic concepts and high-resolution interpretation of depositional sequences (from outcrop and subsurface data); seismic sequence stratigraphy, and significance of unconformities in sequence identification and development; local to global correlation of sequences and sea level history through time; stratigraphic sequences of North America. Required 7-day field trip. Prerequisites: Geol 312, 526, and 726.

GEOL 750. Workshop in Geology (1-3). Short-term courses with special focus on geological problems. Prerequisites: graduate standing and/or instructor's consent.

GEOL 751. Advanced Geochemistry (3). Integrations of practical and theoretical coverage of subsurface fluid flow as applied to shallow aquifers. Covers the mass transport in both the saturated and vadose zones as well as the occurrence and movement of non-aqueous fluids. Covers groundwater quality, sources of groundwater contamination, retardation of contaminants, retardation and attenuation of dissolved solids and the response of inorganic and organic substances to subsurface seepage and framework chemistry. Computer simulation models used whenever practical along with detailed analysis of case histories, including those related to environmental geoscience. Prerequisites: Geol 650, 681, Math 344, or instructor's consent.

GEOL 760. Exploration Geophysics (3). Introduces the theory and application of geophysical techniques for hydrocarbon, mineral, and groundwater prospecting. Includes use of seismic techniques; instrumentation for acquisition on land and sea; seismic processing; structural and stratigraphic modeling; 3D seismic exploration; and seismic reflection techniques. Prerequisites: completion of geology undergraduate math and physics requirements; MATH 344 or 555, Geol 324 and 544; and instructor's consent.

GEOL 781. Advanced Numerical Geology (3). Involves practical implementation of algorithms and computer code. Includes the analysis of multivariate techniques and the development of the computer/algorithm skills needed to handle very large databases. Covers standard statistical approaches to data analysis; treatment of applied linear algebra and matrix theory; and the application of linear and non-linear discriminate analysis, various factor analytic techniques, hard and fuzzy clustering, linear and non-linear mixing analysis, and other forms of data modeling. Prerequisites: Geol 681 or equivalent, competence in one or more high level computer languages, Math 344 or 555, and instructor's consent.

Please see the Graduate Catalog for courses numbered 800 and above.

German, Greek
See Modern and Classical Languages and Literatures.

Gerontology
See Community Affairs, School of.

History (HIST)
The purpose of WSU's Department of History is to illuminate the forces that have shaped our world and to provide a historical perspective for the future. To accomplish those goals, the department offers a flexible program of study. While students may focus on a specific area of concentration, the program introduces them to a variety of classes that assure them a foundation for an integrated liberal education. Combined with courses in other disciplines, the history major prepares students for entrance into a wide variety of career opportunities, including business, government, law, journalism, teaching, communications, and public affairs.

Major. A major in history requires the successful completion of a minimum of 35 hours. All majors complete HIST 100 and 101, 3 credit hours of either HIST 102, 103, or 104; 3 credit hours of either HIST 131 or 132; and a minimum of 15 upper-division (300-level or above) hours, including at least 3 hours from each of the following areas: ancient and medieval history, modern European history, or American history (including Latin America).

Minor. A minor in history requires students to complete a total of 15 hours in history. Only 6 of those hours may be lower-division (100- and 200-level) courses. Students who complete the minor are limited to 3 hours of HIST 310.

Teaching of History. Because Kansas Department of Education regulations governing the certification of secondary history teachers are very specific, students planning to be teachers of history should contact a secondary social studies advisor in the College of Education for program planning beyond the requirements of the history major.

Lower-Division Courses

HIST 100. The Human Adventure: World Civilization Since 1500 (3). General education introductory course. An introduction to the history of the human experience during the past five centuries, with attention to the major social, cultural, economic, and political traditions of Asia, Africa, and the Americas as well as Europe.

HIST 101. History of Western Civilization to 1618 (3). General education introductory course. Examines the development of Western Civilization and Culture from its origins in the Ancient Near East to the Reformation. Pays attention to the
HIST 102. History of Western Civilization since 1668 (3). General education introductory course. Introductory survey of the political, social, cultural, and economic developments in Europe from 1668 until the present day that have shaped our world. Covers the development of constitutional democracies, the rise of totalitarian dictatorships, the emergence of mass society and the middle class, and revolutionary developments in politics and technology.

HIST 103. World Civilization to 1500 (3). Introduces great civilizations before 1500, both western (Near East, Greece, Rome, and Medieval and Renaissance Europe) and non-western (China, Japan, India, Sub-Saharan Africa, and the Americas). Readings help define civilization, stress the individual contributions of each culture to world civilization, and examine the interactions and influences between cultures.

HIST 110. Russian Studies (3). Cross-listed as ESL 110 and POL S 110. Team-taught by faculty from History, political science, and modern and classical languages and literatures. Prepares students wishing to pursue additional courses and/or programs in Russian history, Russian language and literature, Russian government and politics, and/or international relations, including business. Covers medieval, czarist, Soviet, and present day (post-Soviet) Russia.

HIST 131. History of the United States: Colonial to 1865 (3). General education introductory course. Begins with the Native peoples who occupied this continent and continues through the Civil War. Examines the origins and development of the United States, including the influence of the Puritans, the struggle for independence, the quest of the 19th century "hippies" to find utopia, and the challenge to abolish slavery. Examines the formation of our institutions, major political and economic issues, and the expansion of the country's boundaries.

HIST 132. History of the United States since 1865 (3). General education introductory course. Examines the rapid change characterizing the period of U.S. history from the Civil War to the present. Studies the growth of big business, reform movements, and the emergence of the U.S. as a world power. Explores how political, social, and economic factors as well as the war, WW II, Korea, and Vietnam--continue to affect Americans and present a challenge to democracy within a growing diverse population that tests traditional institutions.

HIST 150. Workshop in History (2-3).

HIST 220. Media Courses in History (2-3). Courses created or coordinated by the Department of History which are offered through various media: radio, television, and newspaper. Areas of historical emphasis vary from course to course.

HIST 225. Your Family in History (3). Bridges the gap between history and genealogy through demonstrations of the kinds of research techniques available to those who are interested in creating a family history. Students demonstrate understanding of these techniques in a family history project.

Upper-Division Courses

HIST 300. Introduction to Historical Research and Writing (3). Basic "hands-on" instruction in historical research methodology, writing, and criticism. Students do individual research and write article and book reviews, a lengthy research paper, and critiques of their colleagues' paper drafts. Goal is for students to be capable of conducting historical research and presenting findings in a professional manner. Required of history majors.

HIST 302. American Popular Culture (3). Examines American popular culture from the Civil War to the present. Examines how popular music, cinema, pulp magazine literature, comics, television, and fashion have developed over time to reflect changes in society, its myths, and its values.

HIST 306. The U.S. Century: Decades of Change (3). General education further study course. An examination of the major social and political events of the turbulent twentieth century. Beginning with the assassination of William McKinley, this course explores the U.S. participation in wars, the economic and social crises of the Great Depression, and the reform movements of the "American century."

HIST 308. A History of Lost Civilizations (3). General education issues and perspectives course. A comparative examination of lost civilizations of both the Old World and New World, including the Sumerians, Hittites, Minoans, Mayans, Aztecs, Incas, Mayas, and Aztecs.

HIST 310. Special Topics in History (2-3). Repeatable twice for credit. Prerequisite: departmental consent.

HIST 331. Colonial Latin America (3). General education further study course. Explores the pre-Columbian civilizations in the New World, Spanish and Portuguese exploration and colonization, the consequences of contact between Europeans and Americans, and forces that set in place the drive for independence in the early 19th century.

HIST 332. Modern Latin America (3). General education further study course. Begins with the war for independence, continues with the challenges to achieve nationhood, and concludes with an examination of major social, political, and economic issues Latin America nations faced in the 20th century. Roles of Brazil, Santa Anna, Evita, and Castro are key components.

HIST 334. English History (3). General education further study course. English History, from the beginning of the Stuart period to the present.

HIST 375. Modern German History (3). Survey of German history from the end of the Napoleonic era in 1815 to the fall of the Berlin Wall in 1989.

HIST 316. The Jewish Experience in Christian Europe (3). Introductory survey course. Exposes students to some of the main themes in the history of Jewish civilization in Western culture and society from the early Middle Ages to the present.

HIST 317. The Holocaust (3). General education further study course. Investigates the conditions within European society which led to and ultimately culminated in the murder of approximately 6 million Jews.

HIST 318. The Holocaust in Film (3). Examines ways the Holocaust has been represented in film and uses the material to evaluate the problematic nature of historical representation in film.

HIST 330. Russian History Survey (3). General education further study course. A survey of Russian history from 862 A.D. to the present.

HIST 331. The Vietnam Conflict (3). General education further study course. Studies U.S. participation in Vietnam. Includes the French experience in Indochina, U.S. troop buildup, the Tet Offensive in 1968, and the anti-war movement at home. Examines political factors as well as military strategy, tactics, and major battles.

HIST 334. Modern East Asian History (3). A comparative survey of the modern era in the history of China and Japan from approximately 1800 to the present. Considers indigenous and external factors for the political, economic, and social developments of these societies as well as their current roles in international affairs.

HIST 352. Survey of Public History (3). A survey of various areas where public history takes place and an introduction to the tools and techniques that historians use to present historical research in non-academic settings.


HIST 332. Ethnic America, ca. 1800-1924 (3). General education further study course. Cross-listed as ETH S 332. An introduction to the history of the ethnic experience from the 1800s to the 1920s. Themes include the context of emigration, immigration laws, nativism and exclusion, adaptation and acculturation, community development, and cultural empowerment.

HIST 333. Ethnic America in the Twentieth Century (3). General education further study course. Cross-listed as ETH S 333. An in-depth study of the ethnic experience in the 20th century. Major historical topics include identity formation, inter-generational conflict, class differentiation and social mobility, the politics of ethnicity, resistance and civil rights movements, the rationalization of immigration laws, and transnationalism.
HIST 339. Religion in America (3). Cross-listed as REL 339. Surveys various religious traditions in American history from colonial times to the present. Discusses how religions groups, beliefs, and issues have changed over time and how they interact with each other. Includes the different branches of Christianity and Judaism; the study of awakenings and revivalists; the stories of prominent religious thinkers and leaders; immigrant religious traditions; the tensions between liberal and traditional religious forms; the prophetic and apocalyptic traditions in America; and the impact of Native American, Asian, and African beliefs and practices on the religious landscape.

HIST 340. World War II (3). General education further study course. An introduction to the background and causes of World War II, as well as the military, diplomatic, economic, psychological, and scientific dimensions of the war. Considers the legacy of the war in light of the postwar world.

HIST 348. History of Baseball (3). Explores the evolution of America's national pastime and examines the relationship between baseball and the development of American culture, society, and character. Examines the development of the sport as a uniquely American game, its heroes and bums, champions and cheaters, fans and critics, labor and owners.

HIST 357. Women in the Ancient World (3). General education further study course. Explores the myths and realities of women's lives in the traditional societies of ancient Greece and Rome. Examines how women's social and economic roles varied from culture to culture and how they changed over time from the age of primitive matrarchy to the Christian era. Investigates the influence of these cultures on our own.

HIST 359. The Greek World (3). Surveys Greek history and culture from the Minoans to the Roman Conquest.

HIST 362. The Roman World (3). General education further study course. Surveys Roman history and culture from the Etruscans to Constantine the Great, the first Christian emperor. Examines the history, social structure, and economy of Rome and the Roman world to answer the questions: what made Rome great and what led to her eventual decline. Includes warfare, slavery, and family life.

HIST 481. Cooperative Education (1-3). The cooperative program would cover work done at museums or archival divisions of libraries. Cannot be included for a history major or minor. Offered CR/NC only. Prerequisite: departmental consent.

Courses for Graduate/Undergraduate Credit

HIST 501. The American Colonies (3). General education further study course. Colonization of the New World emphasizing the British colonists and their development.

HIST 502. The American Revolution and the Early Republic (3). General education further study course. Examination of selected phases of the revolutionary, confederation, and federal periods.

HIST 503. The Age of Jefferson and Jackson (3). General education further study course. This course examines the era of Thomas Jefferson and Andrew Jackson; that is, roughly the period from 1800 to 1850. During that time, the United States experienced tremendous territorial growth; cultural ferment and reform movements; engaged in two major international wars and a number of Indian conflicts; and moved toward the sectional showdown over slavery that culminated in a bloody Civil War. The focus is on political, social, and military history, as America expanded from the Mississippi River across the North American continent.

HIST 504. Civil War (3). General education further study course. This class explores the origins and history of the bloodiest war this nation has ever fought. Students will study antebellum America, focusing on the sectional differences between North and South, the institution of slavery, and the abolitionist crusade; and the battlefields of the Civil War.

HIST 505. The United States, 1865 to 1900 (3). Covers the great economic, political, social, and moral questions of the late 19th century. Includes industrialism, the frontier, the city, immigration, race, class, club, empire, gender, and reform.

HIST 507. The United States, 1900-1945 (3). General education further study course. Major topics explored in this class include World War I, the Great Depression, World War II. While this period in U.S. history is noteworthy for conflict, consensus in the form of Progressivism, the New Deal, and the emergence of the modern presidency also characterize these decades. An examination of political leadership will be a major component of this course. The emphasis, however, will be "history from the bottom up" as we examine the lives of ordinary Americans.

HIST 508. The United States Since 1945 (3). General education further study course. In this time period, the United States emerged as a world leader. Although the Cold War became a defining force both at home and abroad, "hot" wars in Korea and Vietnam also produced social, economic, and political repercussions in the United States. This course explores major issues and events of the period with a focus on international relations, the Civil Rights Movement, and the growth of the imperial presidency.

HIST 511. Women in Early America, 1600-1830 (3).

HIST 512. Women and Reform in America, 1830-present (3).


HIST 516. History of American Business (3). A history of American business enterprise from colonial times to the present, emphasizing the industrial age since the Civil War, on case studies of individual firms, on biographies of business people, and on the social and political impact of business.

HIST 517 & HIST 518. Constitutional History of the United States (3 & 3). General education further study courses. 517: the evolution of the American constitutional system from English and colonial origins through the Civil War. 518: American constitutional development from Reconstruction to the present.

HIST 521. Diplomatic History of the United States to 1914 (3). General education further study course. Beginning with the colonial era, this course examines the diplomatic history of the United States to the brink of American participation in the First World War. The focus will be on the movement toward independence, territorial expansion across the continent, the Civil War and the emergence of America as a world power.

HIST 522. Diplomatic History of the United States Since 1910 (3). General education further study course. This course examines American diplomatic history during the twentieth century; that is, from the era of Theodore Roosevelt and the "Big Stick" through the presidency of Bill Clinton. This was a period when the United States emerged as a major player in global affairs, engaged in numerous military conflicts, waged a cold war against the "evil empire" of the Soviet Union, and ultimately stood alone as the world's only economic and military "super power."

HIST 525. American Military History (3). General education further study course. This course surveys the American military heritage and its role in shaping the modern United States. Students will study the history of warfare from frontier conflicts during the colonial period through Desert Storm; focusing on the most significant wars and battles, and the evolution of military institutions and their impact on American social, economic, and political traditions.

HIST 528. History of Wichita (3). A history of Wichita, Kansas, 1856-present, emphasizing the lessons of local history for future planning and its importance to an individual citizen's sense of place.

HIST 530. The American Woman in History (3). Cross-listed as WOM 530. Examination of the history, status, and changing role of women in American society.

HIST 531. American Environmental History (3). General education further study course. Examines the historical, physical, economic, scientific, technological, and industrial interactions of the peoples of America with their environment. Emphasizes the period, 1800-present.

HIST 532. Women in Ethnic America (3). Cross-listed as ETH 532 and WOM 532. An in-depth, thematic understanding of the historical experiences of women of color across space and time in U.S. history. Employing a female-centered framework of analysis, course probes the intersections of race, class, gender, and sexuality in women's lives.

HIST 533. The American City: from Village to Metropolis (3). A study of urbanization and urban life from colonial times to the present—changing lifestyles and thought patterns, urban architecture, ethnic assimilation, emergence of the suburb, political and ecological adjustments, and the influence of new technology and forms of business organization.
HIST 534. History of the Old South (3). Examines Southern civilization prior to the American Civil War.

HIST 535. History of Kansas (3). General education further study course. History of the Kansas region from Spanish exploration to the present, emphasizing the period after 1854.

HIST 536. Survey of American Indian History (3). General education further study course. Surveys the history of Native American nations from prehistoric times to the present. Includes the process of European colonization and indigenous responses, the strategies of accommodation, assimilation, and resistance, and the resurgence of tribalism in the 20th century.

HIST 537. The Trans-Mississippi West (3). Spanish, French, and Anglo-American penetration and settlement west of the Mississippi River from the 16th century to about 1900.

HIST 538. The American West in the Twentieth Century (3). General education further study course. Explores the growth of the trans-Mississippi West in the 20th century, emphasizing political development, economic growth, cultural manifestations, the role of minority groups, and the impact of science and technology.

HIST 541. Modern France (3). General education further study course. History of the major trends in French history from Napoleon to DeGaulle emphasizing French attempts to adjust politically, socially, economically, and culturally to the changing conditions of modern industrial society.

HIST 542. History of Mexico (3). General education further study course. "Poor Mexico: So far from God, so close to the United States." Examines the influences of the Maya, the everyday life of the Aztecs, and the destruction wrought when the Spanish invaded the New World. Major figures and the roles they played in Mexican history such as Santa Anna, Benito Juarez, and Porfirio Díaz emerge in this study. Course concludes with the impact of a 2000-mile border with the United States and a brief look at NAFTA.

HIST 558. The Ancient Near East (3). General education further study course. Political and cultural history of ancient Mesopotamia, Iran, Egypt, Palestine, Syria, and Asia Minor to the death of Alexander the Great.

HIST 559. Greek History (3). General education further study course. The Hellenic world from prehistoric times to the end of the Peloponnesian War.

HIST 560. The Hellenistic World and Rise of Rome (3). General education further study course. Begins with the conquests of Alexander the Great and provides an overview of the new Greek world which he left behind. Will also examine changes in Greek culture and society as a result of the spread of Hellenism to the older kingdoms of the New East and India. Will include the rise of the Roman Republic in the context of the Greek world in the first century BC with the defeat of Cleopatra, or the last queen of Egypt.

HIST 562 & HIST 563. Roman History (3 & 3). General education further study courses. 562: The Roman Republic. 563: The Roman Empire.

HIST 566 & HIST 567. Medieval History (3 & 3). General education further study courses. 566: The history of Europe from the fall of the Roman Empire through the Crusades, 500 to 1200. 567: History of Europe, 1200 to 1300.

HIST 568. Social, Economic, and Intellectual History of the Middle Ages (3). Examines fundamental themes in the development of the social, economic, and intellectual history of the Middle Ages, emphasizing the rise of cities, universities, scholastic thought, diverse patterns of daily life, and economic activities of the Middle Ages.

HIST 569. Medieval England (3). An examination of the development of Medieval England from the Anglo-Saxon invasions until the end of the 14th century. The Norman Conquest, the rule of the Angevins, the reign of Edward I, and the daily life of those peoples who become the English will receive particular attention.

HIST 575. The Italian Renaissance (3). General education further study course. Italian history from the 14th through the 16th centuries emphasizing cultural achievements.

HIST 576. The Reformation (3). General education further study course. Cross-listed as REL 476. The great religious changes in the 16th century in the political, social, and intellectual contexts.

HIST 577. Medieval Women (3). Deals with the lives and accomplishments of Christian women in Late Antiquity and the Middle Ages.

HIST 581. Europe, 1789-1870 (3). General education further study course. A focused survey of European social, cultural, and political history from 1789-1870. Among the topics covered are the Enlightenment, the French Revolution, industrialization, romanticism, nationalism, liberalism, socialism, the revolutions of 1848, and the role of women in European society.

HIST 582. Europe, 1871-1914 (3). General education further study course. A focused survey of European history between the years 1871-1914. Among the subjects covered are the phenomena of nation building and the imperial project, the rise and growth of European colonialism, the emergence of a "mass society," the role of women and minorities, the origins and impact of World War I, inter-war politics and diplomacy, the Nazi Era, and World War II.


HIST 588. History of Early Russia (3). General education further study course. Covers the social, political, and cultural history of Kievan and Muscovite Russia.

HIST 599. History of Imperial Russia (3). General education further study course. A survey of the political, social, and cultural history of Imperial Russia.

HIST 592. History of the Soviet Union (3). General education further study course. A survey of Soviet history from the Bolshevik Revolution to the present.

HIST 593. Former Soviet Union (3). General education further study course. An examination of contemporary life in the former USSR: historical background, Marxist-Leninist ideology, industrial and agricultural economies, roles played by women, national minorities and dissidents in Soviet society, the press, literature and art, health care, and prospects for the country's future.

HIST 613. European Diplomatic History (3). European international politics and diplomatic practices, emphasizing the actions of the great powers and their statesmen. Versailles settlement, totalitarianism, appeasement, World War II, the cold war, and decolonization of Southeast Asia and the Middle East as prelude to major power involvement.

HIST 639. Religion in America (3). Covers major trends in American religious history focusing on the scholarly issues related to the study of these subjects. Students explore such subjects as religious awakenings, fundamentalism, Pentecostalism, and nationalism and examine how historians have studied and disagreed over these topics.

HIST 698. Historiography (3). Review of the major schools of historical thought, philosophies of history, and eminent historians from the ancient world to the present. Required of history majors.

HIST 701. Introduction to Public History (3). Introduces the various areas of public history including historic preservation, archival administration, museum studies, litigation support, and corporate history. Students learn the philosophies, techniques, and practices that comprise the field and ways these areas interact with their academic training. Prerequisite: Graduate standing or instructor's consent.

HIST 702. Historic Preservation (3). Advanced survey of the multifaceted, multidisciplinary field of historic preservation. Presents a broad and sophisticated view of the many arms of preservation in the U.S., as well as the numerous opportunities available to trained professionals in the field. Prerequisite: HIST 701 or instructor's consent.

HIST 703. Museum Administration (3). Addresses the many facets of museum administration from a specialist's point of view. Covers collecting, management, law and ethics, and resource development. Gives a close view of the operations of American museums. Prerequisite: HIST 701 or instructor's consent.

HIST 704. Interpreting History to the Public Explaining the Past (3). Looks at ways history can be communicated to audiences, including scholarly texts, popular written histories, movies, videos, guidebooks, museums, and other similar media. Explores the differences between various forms of historical communication and assesses the ways they reach audiences. Student learn to discern various components of historical texts to use in the design of interpretation materials on their own. Prerequisite: HIST 701 or instructor's consent.
HIST 705. Introduction to Archives (3). Introduces the basic knowledge, theory, and related skills of archival administration, including the nature of information, records, and historical documentation; the role of archives in modern society; and issues and relationships that affect archival functions. Covers the theory and skills necessary to understand and apply basic archival functions. Prerequisite: graduate standing and/or instructor's consent.

HIST 725. Advanced Historical Method (3). Reviews basic historical research methods, the general character of field bibliographies and recent interpretations, and the techniques of professional narrative development. Required of graduate degree students during their first year of enrollment. Prerequisite: departmental consent.

HIST 727. Readings in History (3). Readings in ancient, modern, medieval, European, and American field bibliographies. Repeatable for credit. Prerequisite: departmental consent.

HIST 728. Seminar in American History (3). Repeatable for credit. Prerequisite: departmental consent.

HIST 729. Seminar in American History (3). Repeatable for credit. Prerequisite: departmental consent.

HIST 733. Seminar in European History (3). Repeatable for credit. Prerequisite: departmental consent.

HIST 734. Seminar in European History (3). Repeatable for credit. Prerequisite: departmental consent.

HIST 750. Workshop in History (1-3). Repeatable for credit but does not satisfy requirements for history majors.

HIST 781. Cooperative Education in History (1-2). Graduate history students participate in internship experiences through the Cooperative Education program. Augments HST 815. Prerequisite: instructor's consent.

Please see the Graduate Catalog for courses numbered 800 and above.

Interdisciplinary Liberal Arts and Sciences Program (LAS-I)

Fairmount College is the home for interdisciplinary courses and programs. Among those are academic service courses such as Introduction to the University, Adult Seminar, Topics in Career Exploration, and Inquiry in Liberal Arts and Sciences. In these and other courses, students learn more about themselves, University life, preparation for careers, and the foundations of liberal arts and sciences. An interdisciplinary certificate program that enables students to focus coursework from several departments around a unique area—Great Plains Studies—is also offered through LAS-I. Further, the foundation courses for the Master of Arts in Liberal Studies are part of the LAS-I range of coursework. More information about LAS-I, its courses, and its programs may be obtained through the LAS Advising Center.

Certificate in Great Plains Studies

Fairmount College offers a Certificate in Great Plains Studies, an interdisciplinary program for undergraduates and graduate students. This certificate is for students interested in supplementing their major field of study with courses from a number of disciplines focusing on a common topic; the Great Plains. Non-degree adults can earn the certificate for professional or personal enrichment.

Requirements: Undergraduate students must have a 2.500 overall GPA and sophomore standing. They must complete at least a 2.500 cumulative grade point average with no grade below C in courses applied toward the certificate.

Students may transfer 3 hours of coursework from another institution. Exceptions for additional transfer credit or other exceptions to the certificate requirements will be reviewed by the Great Plains Studies coordinator and committee.

Students complete 20 hours of coursework, including three required courses (LAS-I 201, 501, and 510) with the remaining courses selected from these designated courses: ANTHR 612, ANTHR 613, BIOL 503, BIOL 575, ENGL 343, ETH 532, ETH 5380, GEOG 562, GEOG 570, HIST 535, and HIST 536.

Lower-Division Courses

LAS-I 100. PASS Program (2). PASS: Personal and Academic Success Seminar, studies the University as a resource for personal development and the development of an individual master plan for study and self-development in the University. Created specifically for the first-time WSU student-athlete, the course assesses students in developing and refining personal and academic success skills. Also provides opportunities for one-on-one interaction with other students as well as WSU faculty and staff. Course is required for NCAA student-athletes new to campus.

LAS-I 100A. Adult Seminar (1): A special class for adults who have been out of school one year or more. Helps adults learn more about themselves and about Wichita State University. Covers career information, interest testing and interpretation, educational planning, and other activities. Offered Cr/NC only.

LAS-I 101. Introduction to the University (3): Helps students make connections with academic programs, faculty, staff, and other students; develop required academic and career competencies; and make sense of the higher education environment.

LAS-I 102. Topics in Career Exploration (2): Involves students in the career/life, educational planning, and decision-making process based on career development theories. Uses various assessments and exercises to explore values, interests, and skills as they relate to career choice. Students research occupations and gain knowledge of labor market trends. Course content assists in exploration of college major and career path choice or change. Addresses current workplace issues. Offered Cr/NC only.

LAS-I 150. Workshop: Special Topics (1-3). Meets identified needs of specific audiences. Offered Cr/NC only.

LAS-I 190. Inquiry in Liberal Arts and Sciences (3). Introduces the liberal arts and sciences as the foundation of the university education. Team taught by faculty from the humanities, social sciences, and natural sciences. Topics of general interest from various disciplinary perspectives and ways of knowing. Students gain insights which may guide them towards majors, areas of concentration, and their own pursuit of understanding.

LAS-I 201. Introduction to Great Plains Studies (3). For students pursuing the certificate in Great Plains Studies. Acquaints students with the Great Plains region—its physical characteristics and historical and contemporary issues which concern scholars and residents of the region. Students read and discuss texts focusing on the Great Plains from various disciplinary perspectives. Prerequisite: admission to Great Plains Studies certificate program or instructor's consent.

LAS-I 281. Cooperative Education (1-4). Provides employment opportunities or approves current employment, when appropriate, to integrate academic theory with planned professional experience. Individualized programs must be formulated in consultation with and approved by appropriate faculty sponsors. May be repeated. Offered Cr/NC only.

Upper-Division Courses

Las-I 300. Global Issues (3): General education issues and perspectives course. Taught by faculty from many colleges and disciplines. Emphasizes challenges in the global village. May include peace and war, energy, social equality, the arts and technology, poetry and power, cultural differences, genetics, economic strategies, the environment, and health and education. May be applied to any of the disciplines of the humanities, social sciences, and natural sciences.

LAS-I 350. Workshop: Special Topics (1-3). Meets identified needs of specific audiences.

LAS-I 390. Liberal Arts and Sciences: Issues and Perspectives (3). Offers an opportunity to consider personal, intellectual, and social issues and perspectives engaging in interdisciplinary strategies employed by a team of collaborating faculty from the humanities, social sciences, and natural sciences. Prerequisites: completion of basic skills courses and at least three introductory courses from fine arts, humanities, social and behavioral sciences, and natural sciences included in the General Education Program. This Issues and Perspectives course can be applied to any of the disciplines of the humanities, social sciences, and natural sciences.

LAS-I 398. Travel Seminar (1-4): An interdisciplinary travel seminar which allows a student traveling abroad to gain credit for the study of culture, art, literature, architecture, political, social, scientific, and economic conditions while visiting historic places of interest. Students may enroll under the direction of a faculty member in any department in Fairmount College.
LAS I 479. International Student Exchange Program (12-18). The International Student Exchange Program encourages undergraduate students to attend a university outside the USA while retaining full-time student status and paying regular tuition at WSU. A student who wishes to enter this program must make application. Forms may be obtained from the WSU Office of International Education; after the student meets with his/her assigned program advisor to request academic and course equivalent approval to attend the proposed university. Upon approval from the student’s WSU program, application may be completed. The enrollment designation documents the status and the tuition payment of the student enrolled in ISRP for the duration of the residence at the collaborating university. At the end of the exchange semester, all coursework from the international university will be transferred to WSU. At that time, the transfer course(s) will replace the LAS-I hours of enrollment with only the International Student Exchange Program designation remaining on the transcript. Repeatable for two enrollment periods or a maximum of 30 credit hours.

LAS I 480. National Student Exchange (12-18). The National Student Exchange program encourages students to attend another university for a semester while retaining full-time student status and paying regular tuition at WSU. All coursework from the selected university will be transferred to Wichita State at the end of the exchange semester. At that time, the transfer courses will replace the WSU hours, with only the National Student Exchange designation remaining on the transcript. This enrollment designation documents the full-time status and the tuition payment of the student enrolled in the NSP program for the duration of the residence at the collaborating university. Repeatable for credit one time.


Courses for Graduate/Undergraduate Credit

LAS I 501. Great Plains Experience (1-3). Offered during fall and spring semesters as a 1-hour field experience and in the summer session as a 3-hour field experience. For students in the Great Plains Studies certificate program. Visit museums, anthropological and archaeological sites, nature preserves, and other places of significance in Great Plains Studies. Prerequisites: LAS II 201 or 280 or instructor's consent.

LAS I 510. Great Plains Seminar (3). For students completing the Great Plains Studies certificate program. Focuses on contemporary issues and critical contexts for research. Students develop research projects appropriate to their classification as undergraduates or graduates and which reflect their particular interests in Great Plains Studies. Supplemental resources provided by faculty through lectures, consultation, coursework materials, and mentoring. Prerequisites: 12 hours of Great Plains Studies coursework, including LAS II 201 and 501; undergraduates must have senior status or instructor's consent.

LAS I 680. International Student Exchange Program—Graduate (3). The International Student Exchange Program encourages graduate students to attend a university outside the USA while retaining full-time student status and paying regular tuition at WSU. A student who wishes to enter this program must make application. Forms may be obtained from the WSU Office of International Education; after the student meets with his/her assigned program advisor to request academic and course equivalent approval to attend the proposed university. Upon approval from the student’s WSU program, application may be completed. The enrollment designation documents the status and the tuition payment of the student enrolled in ISRP for the duration of the residence at the collaborating university. At the end of the exchange semester, all coursework from the selected university will be transferred to WSU. At that time, the transfer course(s) will replace the LAS-I hours of enrollment with only the International Student Exchange Program designation remaining on the transcript. Repeatable for two enrollment periods or a maximum of 30 credit hours.

LING 211. Introduction to English Linguistics (3). General education education. Introduces the principles of English syntax, including phonological and grammatical concepts.

LING 216. English Sentence Structure (3). Cross-listed as ENGL 216. The basic rules of English syntax, specifically designed for prospective teachers of English but open to all students interested in English sentence structure.


LING 318. Dialectology (3). Cross-listed as ENGL 318. An introduction to the study of regional and social dialects of English. The relationship between language and factors such as socioeconomic class, social networks, sex, nationalism, and geography.

Courses for Graduate/Undergraduate Credit

LING 667. Linguistics. English Syntax (3). Cross-listed as ENGL 667 and ANTHR 667. Studies the basic principles of English syntax, covering the major facts of English sentence construction and relating them to linguistic theory. Prerequisite: LING 315 or equivalent or departmental consent.

LING 672. Dialectology (3). Cross-listed as ENGL 672. Introduces the study of language variety, emphasizing regional and social dialect in America and methods of studying it. May be repeated for credit when content varies. Prerequisite: LING 315 or departmental consent.

Group B—Linguistic Study of Specific Languages or Language Groups

Courses for Graduate/Undergraduate Credit


LING 285B. Russian. Russian Phonology (2). Cross-listed as RUSS 285B.


LING 611. English, Old English (3). Cross-listed as ENGL 611. Studies the Old English language in enough detail to
enable the reading of some prose and poetry, including parts of Beowulf in the original. Some literature, including all of Greek, is read in translation, with attention to important literary and cultural features of the period.

LING 635. French and Spanish. Introduction to Romance Linguistics (3). Cross-listed as FREN 635 and SPAN 635.

Group C—Areas of Contact Between Linguistics and Other Disciplines

Upper-Division Courses

LING 304. CDS. Developmental Psycholinguistics (3). Cross-listed as CDS 304.

LING 351. Linguistics and Foreign Languages (3). Cross-listed as ANTH 351 and MCLI 351. Prerequisite: LING 151.

Courses for Graduate/Undergraduate Credit

LING 545. Psychology. Psycholinguistics (3). Cross-listed as PSY 532.

LING 651. Language and Culture (3). Cross-listed as ANTH 651 and MCLI 661. Prerequisite: 3 hours of linguistics or MCLI 351 or 6 hours of anthropology.

LING 727. Teaching English as a Second Language (2-3). Cross-listed as ENGL 727. Discusses current methods of teaching English to non-native speakers. Students learn to analyze interlanguage patterns and to design appropriate teaching units for class and language laboratory use.


Others

Lower-Division Course

LING 292. Linguistics. Special Studies (2-3). Topic selected and announced by individual instructor. Credit is assigned to Group A, B, or C depending on content. Repeatable for credit when content varies.

Courses for Graduate/Undergraduate Credit

LING 590. Linguistics. Special Studies (2-3). Topic selected and announced by individual instructor. Credit is assigned to Group A, B, or C depending on content. Repeatable for credit when content varies.

LING 595. Linguistics. Directed Readings (2-3). Credit assigned to Group A, B, or C depending on content. Repeatable for credit.

Mathematics and Statistics

Mathematics (MATH)

Mathematics is among the oldest disciplines. Throughout history, mathematics has spanned the spectrum from pure to applied areas. The ancient Greek mathematicians were interested in problems that ranged from properties of numbers to applications of mathematics to music and astronomy. The Department of Mathematics and Statistics fulfills its mission by offering a broad and representative collection of courses to give students the ability to select, with their advisor, a program that fits their needs and goals. The Department of Mathematics and Statistics offers bachelor's (BA and BS), master's (MS), and doctoral (PhD) degrees.

Note: For ease of description, certain courses in mathematics and statistics are categorized in the following groups (the courses in Group R are required of all majors):

Group R: MATH 415, 511, 547, 551, 555

Group A: MATH 513, 615, 621, 690, 720, 725

Group B: STAT 460, 571, 572, 574, 575, 761, 762, 763, 771, 772, 775, 776

Group C: MATH 530, 545, 553, 640, 655, 657, 714, 751, 753, 755,

Major:* For the Bachelor of Arts (BA) degree with a major in mathematics, students must complete all courses in Group R plus MATH 531 and two additional courses from those listed in Groups A, B, and C.

For the Bachelor of Science (BS) degree in mathematics, students must complete all courses in Group R and one each from Groups A, B, and C. In addition, the BS candidate must complete two additional courses from those listed in Groups B and/or C.

For the Bachelor of Science (BS) degree in mathematics with emphasis in statistics, students must complete all courses in Group R, one course in Group A, and one course in Group C. In addition, the BS candidate must complete 12 additional hours of courses in Group B which must include either STAT 571-572 or STAT 771-772, plus one more course from Groups B or C. Students under this option may select statistics courses from other departments with the prior approval of the Department of Mathematics and Statistics.

For the Bachelor of Science (BS) degree with emphasis in computing, students must complete all courses in Group R. Students also must complete MATH 451 and an additional high-level programming language.

In addition, the BS candidate must complete 12 additional hours of courses in Group B which must include either STAT 571-572 or STAT 771-772, plus one more course from Groups B or C. At least three of the five additional courses must be in computer science (CS).

For students who are contemplating graduate work, it is highly recommended that they include MATH 513, 547, and 640 in their program, along with courses in one or more of French, German, or Russian.

Students majoring in mathematics should consult closely with their mathematics advisor on any of these programs.

Minor. For a minor in mathematics, students must complete the calculus sequence (242, 243, 344) and take at least one additional upper-division course approved by both the Department of Mathematics and Statistics and the student's major department.

*All bachelor's degrees in mathematics require a high-level algorithmic computer language. The MATLAB course, MATH 451, is strongly recommended.

Non-credit Courses

MATH 007. Arithmetic (3). Offered Cr/No Cr only. A review and study of the basic arithmetical operations for the mature student whose previous training in arithmetic is inadequate for completion of college mathematics courses.

MATH 011. Beginning Algebra (3). Offered Cr/No Cr only. Content consists of algebra topics usually covered in the first year of a standard high school algebra course. Not applicable to degree.

MATH 012. Intermediate Algebra (3). Offered Cr/No Cr only. Content consists of topics usually covered in the second year of a standard high school algebra course. Prerequisite: MATH 011 or one year of high school algebra, and qualifying score in recent department placement exam. Not applicable to degree.

MATH 013. College Algebra Supplement (2). Offered Cr/No Cr only. A supplement to MATH 101 to be taken concurrently with designated sections of MATH 111 to allow students 5 contact hours for mastering college algebra. Co-requisite: MATH 111.

Lower-Division Courses

MATH 111. College Algebra (3). General education basic skills course. A survey of functions, theory of equations and inequalities, complex numbers, and exponential and logarithmic functions. High school geometry is a highly recommended preparatory course. Prerequisites: MATH 012 or two years of high school algebra and qualifying score in recent department placement exam. Credit is allowed only in one of the two courses MATH 111 and 112.

MATH 112. Precalculus Mathematics (5). General education basic skills course. Functions, theory of equations and inequalities, complex numbers, the trigonometric functions, exponential and logarithmic functions, and other standard topics prerequisite to a beginning study of calculus. Course is not available for credit to students who have received a C or better in MATH 242 or its equivalent. Prerequisites: MATH 012 or two years of high school algebra, one unit of high school geometry, and qualifying score in recent departmental placement exam. Credit is allowed only in one of the two courses MATH 111 and 112.

MATH 121. Geometry for College Students (3). A study of lines, angle relationships, parallel lines, triangles, quadrilaterals, similar triangles, circles, areas of polygons and circles, and some material on surface and solids. Prerequisite: MATH 111 or equivalent with a grade of C or better.
MATH 123. College Trigonometry (3). Studies the trigonometric functions and their applications. Credit in both MATH 123 and 112 is not allowed. Prerequisite: MATH 111 with C or better or equivalent high school preparation, and one unit of high school geometry.

> MATH 131. Contemporary Mathematics (3). General education basic skills course for students majoring in nontechnical areas. A collection of applications of mathematics illustrating how contemporary mathematical thinking is used in the decision-making process. Covers topics selected from such areas as the mathematics of social choice; management science; statistics; coding information; and the geometry of growth, shape, and symmetry. Prerequisite: MATH 012 or two years of high school algebra and a qualifying score on a recent departmental placement examination.

> MATH 144. Business Calculus (3). General education introductory course. A brief but careful introduction to calculus for students of business and economics. Credit in both MATH 144 and 242 is not allowed. Prerequisite: MATH 111 or 112 with a C or better or equivalent high school preparation.

MATH 150. Workshop in Mathematics (1-3). Topics of interest to particular students and not elsewhere available in the curriculum. May be repeated for a total of 6 hours credit with departmental consent. Prerequisite: departmental consent.

MATH 211. Elementary Linear Algebra (3). Covers topics in linear algebra together with elementary applications. Prerequisite: one and one-half units of high school algebra or MATH 111.

> MATH 242. Calculus I (5). General education introductory course. Analytic geometry and the calculus in an integrated form. Credit in both MATH 242 and 244 is not allowed. Prerequisites: MATH 112 with a C or better or two units of high school algebra, and one unit of high school geometry and one-half unit of high school trigonometry, or MATH 123 and 111 with a C or better in each.

> MATH 243. Calculus II (5). General education further study course. A continuation of MATH 242. Includes a study of integration and applications and an introduction to infinite series. Prerequisite: MATH 242 with a C or better.

Upper-Division Courses

MATH 300. The Evolution of Mathematics (3). A study of the development and mathematicians from antiquity to the present; to see how mathematics has developed from human beings' efforts to understand the world and the extent to which mathematics has molded our civilization and culture. Since mathematics is what mathematicians do, the lives of mathematicians from various ages and countries are studied. Not a mathematical skills course.

MATH 311. Introduction to Linear Algebra (1). A study of systems of linear equations, matrices, vectors, eigenvalues and eigenvectors. Credit not allowed in both MATH 211 and 311. Prerequisite: MATH 344 or concurrent enrollment.

MATH 331. Discrete Mathematics I (3). A study of some of the basic topics of discrete mathematics, including elementary logic, properties of sets, mathematical induction, counting problems using permutations and combinations, trees, elementary probability, and an introduction to graph theory. Prerequisite: MATH 111 or 211 or equivalent college-level mathematics course.

MATH 344. Calculus III (3). A continuation of MATH 243. Includes a study of multiple integration and partial derivatives. Prerequisite: MATH 243 with a C or better.

MATH 415. An Introduction to Advanced Mathematics (3). Develops the concept of proof in a setting of mathematical tools needed in advanced courses. Covers topics in number theory, algebra, and analysis. Particular attention to equivalence relations, functions, induction, and mathematical systems. Prerequisite: MATH 344 with a C or better.

MATH 451. Computational Mathematics using MATLAB (3). Introduces the use of MATLAB in computational algorithms. A bridge to upper-division courses in numerical methods and applied mathematics. Prerequisite: MATH 243 with a C or better.

MATH 450. Individual Projects (1-5). Repeatable up to 10 hours. Prerequisite: departmental consent.

Courses for Graduate/Undergraduate Credit

Credit in courses numbered below 600 is not applicable toward the MS in mathematics.

MATH 501. Elementary Mathematics (3). A study of topics necessary to an understanding of the elementary school curriculum, such as set theory, real numbers, and geometry. Not for major or minor credit. Prerequisite: elementary education major and MATH 111 or equivalent with C or better or departmental consent.

MATH 511. Linear Algebra (3). An elementary study of linear algebra, including an examination of linear transformations and matrices over finite dimensional spaces. Prerequisite: MATH 243 with a C or better.

MATH 513. Fundamental Concepts of Algebra I (3). Defines group, ring, and field and studies their properties. Prerequisites: MATH 415 and 511 with C or better or departmental consent.

MATH 530. Applied Combinatorics (3). Basic counting principles, occupancy problems, generating functions, recurrence relations, principles of inclusion and exclusion, the pigeonhole principle, Fibonacci sequences, and elements of graph theory. Prerequisite: MATH 344 with C or better.

> MATH 531. Introduction to the History of Mathematics (3). General education issues and perspectives course. Studies the development of mathematics from antiquity to modern times. Solves problems using the methods of the historical period in which they arose. Requires mathematical skills. Prerequisites: MATH 511 and two additional courses at the 500 level or above, with C or better in each.

MATH 545. Integration Techniques and Applications (3). Studies the basic integration techniques used in applied mathematics. Includes the standard vector calculus treatment of line and surface integrals, Green's Theorem, Stokes' Theorem, and the Divergence Theorem. Also includes the study of improper integrals with application to special functions. Prerequisites: MATH 344 with C or better.

MATH 547. Advanced Calculus I (3). Covers the calculus on Euclidean space including the standard results concerning functions, sequences, and limits. Prerequisites: MATH 344 and 415 with C or better in each.

MATH 551. Numerical Methods (3). Approximating roots of equations, interpolation and approximation, numerical differentiation and integration, and the numerical solution of first order ordinary differential equations. Some computer use. Prerequisites: MATH 344 and 415 with C or better or departmental consent.

MATH 553. Mathematical Models (3). Covers case studies from the fields of engineering technology and the natural and social sciences. Emphasizes the mathematics involved. Each student completes a term project which is the solution of a particular problem approved by the instructor. Prerequisite: MATH 344 with C or better or departmental consent.

MATH 555. Differential Equations I (3). A study of first order equations including separation of variables and exact equations; second order equations including the general theory of linear equations, constant coefficients, undetermined coefficients, variation of parameters, and special methods of solution using power series and the Laplace transform methods. A standard course in differential equations for students in the sciences and engineering. Credit not allowed in both MATH 550 and 555. Prerequisite: MATH 243 with C or better or departmental consent.

MATH 580. Selected Topics in Mathematics (1). Topic chosen from topics not otherwise represented in the curriculum. May be repeated up to a maximum of 6 hours credit with departmental consent. Prerequisite: departmental consent.

MATH 615. Elementary Number Theory (3). Studies properties of the integers by elementary means. Prerequisite: MATH 344 with C or better or departmental consent.

MATH 621. Elementary Geometry (3). Studies Euclidean geometry from an advanced point of view. Prerequisite: MATH 344 with C or better or departmental consent.

MATH 640. Advanced Calculus II (3). A continuation of MATH 547. Prerequisites: MATH 511 and 547 with C or better in each.

MATH 655. Differential Equations II (3). A continuation of MATH 555 (but with more emphasis on theoretical issues) that covers higher order differential equations, systems of
first order equations (including the basics of linear algebra), some numerical methods, and stability and behavior of solutions for large times. Prerequisite: MATH 555 with C or better or departmental consent.

MATH 657. Optimization Theory (3). Introduces selected topics in linear and nonlinear optimization. Develops the revised simplex method along with a careful treatment of duality. Then extends the theory to solve parametric, integer, and mixed integer linear programs. Prerequisite: MATH 511 with C or better.

MATH 660. Introduction to Mathematical Logic (3). An axiomatic development of elementary mathematical logic through first-order logic culminating in theorems on completeness and consistency. Investigates connections with Boolean algebra, formal languages, and computer logic. Prerequisite: MATH 415 or 511 with C or better or departmental consent.

MATH 713. Abstract Algebra I (3). Treats the standard basic topics of abstract algebra. Prerequisite: MATH 513 with C or better or departmental consent.

MATH 714. Applied Mathematics (3). Cross-listed as PHYS 714. A study of mathematical techniques applicable to physics and other sciences. Instructor selects topics, such as power series, infinite products, asymptotic expansions, WKB method, contour integration and residue methods, integral transforms, Hilbert spaces, special functions, and integral equations. Prerequisite: MATH 555 or instructor's consent.

MATH 720. Modern Geometry I (3). Studies the fundamental concepts of geometry. Prerequisite: MATH 513 with C or better or departmental consent.

MATH 725. Topology I (3). Studies the results of point set and algebraic topology. Prerequisite: MATH 547 with C or better or departmental consent.

MATH 743. Real Analysis I (3). Includes a study of the foundations of analysis and the fundamental results of the subject. Prerequisite: MATH 640 with C or better or departmental consent.

MATH 745. Complex Analysis I (3). Studies the theory of analytic functions. Prerequisite: MATH 640 with C or better or departmental consent.

MATH 750. Workshop (1-3). Topics appropriate for mathematics workshops that are not in current mathematics courses. May be repeated to a total of 6 hours credit with departmental consent. Prerequisite: departmental consent.

MATH 751. Numerical Linear Algebra (3). Includes analysis of direct and iterative methods for the solution of linear systems, linear least squares problems, eigenvalue problems, error analysis, and reduction by orthogonal transformations. Prerequisites: MATH 511, 547, and 551 with C or better in each, or departmental consent.

MATH 753. Ordinary Differential Equations (3). Covers existence, uniqueness, stability, and other qualitative theories of ordinary differential equations. Prerequisite: MATH 545 or 547 with C or better or departmental consent.

MATH 755. Partial Differential Equations I (3). Studies the existence and uniqueness theory for boundary value problems of partial differential equations of all types. Prerequisite: MATH 547 with C or better or departmental consent.

MATH 757. Partial Differential Equations for Engineers (3). Includes Fourier series, the Fourier integral, boundary value problems for the partial differential equations of mathematical physics, Bessel and Legendre functions, and linear systems of ordinary differential equations. Prerequisite: MATH 555 with C or better.

MATH 758. Complex and Vector Analysis for Engineers (3). A survey of some of the mathematical techniques needed in engineering including an introduction to vector analysis, line and surface integrals and complex analysis, contour integrals, and the method of residues. Not applicable toward a graduate degree in mathematics. Prerequisite: MATH 555 with C or better.

Please see the Graduate Catalog for courses numbered 800 and above.

Statistics (STAT) No major or minor in statistics is available, but a BS degree with emphasis in statistics is offered as described under the mathematics section. Statistics courses satisfy general education requirements. As part of the 124 semester hours required for graduation, students may take up to 15 semester hours of statistics courses in addition to the 45 or 50 semester hours of coursework allowed in mathematics.

Lower-Division Course

STAT 170. Statistics Appreciation (1). A non-technical course stressing and explaining how statistics and probability help solve important problems in a variety of fields (e.g., biology, economics, education, government, health sciences, social sciences, etc.). The material is developed by examples rather than by traditional statistical methods and does not require any special knowledge of mathematics.

Upper-Division Courses

STAT 360. Elementary Probability (3). Includes probability functions, random variables and expectation of finite sample spaces. Prerequisite: MATH 111 with a C or better or equivalent.

STAT 370. Elementary Statistics (3). General education introductory course. Surveys elementary descriptive statistics, binomial and normal distributions, elementary problems of statistical inference, linear correlation and regression. Not open to mathematics majors. Prerequisite: MATH 111 with a C or better or equivalent.

STAT 460. Elementary Probability and Mathematical Statistics (3). General education introductory course. Covers elementary probability concepts, some useful discrete and continuous distributions and mathematical aspects of statistical inference including maximum likelihood estimation, confidence intervals, hypothesis testing and regression. Prerequisite: MATH 243 with a C or better.

STAT 471. Probabilistic Models and Statistical Methods (3). Covers axioms of probability, Bayes' Theorem, random variables and their distribution, joint distributions of random variables, transformations of random variables, moment generating function, characteristic functions, central limit theories and other topics with applications to engineering. Prerequisite: MATH 544 with a C or better.

Courses for Graduate/Undergraduate Credit Credit in courses numbered below 600 is not applicable toward the MS in mathematics.

STAT 570. Special Topics in Statistics (1). Covers topics of interest not otherwise available. Prerequisite: departmental consent.

STAT 571-572. Statistical Methods I and II (3-3). General education further study course. Includes probability models, points and interval estimates, statistical tests of hypotheses, correlation and regression analysis, introduction to non-parametric statistical techniques, least squares, analysis of variance, and topics in design of experiments. Prerequisite: MATH 243 with C or better or departmental consent.

STAT 574. Elementary Survey Sampling (3). Reviews basic statistical concepts. Covers simple, random, stratified, cluster, and systematic sampling, along with selection of sample size, ratio, estimation, and costs. Applications studied include problems from the social and natural sciences, business, and other disciplines. Prerequisite: any elementary course in statistics, such as STAT 370, SOC 501, or PSY 401 with a C or better.

STAT 576. Applied Non-parametric Statistical Methods (3). General education further study course. Studies assumptions and needs for non-parametric tests, rank tests, and other non-parametric inferential techniques. Applications involve problems from the social and natural sciences, business, and other disciplines. Prerequisite: any elementary statistics course such as STAT 370, SOC 501, or PSY 401 with a C or better.

STAT 761. Probability (3). A study of axioms of probability, discrete and continuous random variables, expectation, examples of distribution functions, moment generating functions, and sequences of random variables. Prerequisite: MATH 344 with C or better.

STAT 762. Applied Stochastic Processes (4). Studies random variables, expectation, limit theorems, Markov chains, and stochastic processes. Prerequisite: STAT 761 or 771 with C or better or departmental consent.

STAT 763. Applied Regression Analysis (3). Studies linear, polynomial, and multiple regression. Includes applications to
business and economies, behavioral and biological sciences, and engineering. Uses computer packages for doing problems. Prerequisites: STAT 571 and MATH 344 and 511 with C or better in each or departmental consent.

STAT 784. Analysis of Variance (3). An introduction to experimental design and analysis of data under linear statistical models. Studies single-factor designs, factorial experiments with more than one factor, analysis of variance, randomized block designs, nested designs, and Latin square designs. Uses computer packages for doing problems. Prerequisites: STAT 571 and MATH 344 and 511 with C or better in each or departmental consent.

STAT 771-772. Theory of Statistics I and II (3). An examination of stochastic dependence distributions of functions of random variables including limiting distributions, order statistics, theory of statistical inference, non-parametric tests, and analysis of variance and covariance. Prerequisites: MATH 545 or 547 with C or better or departmental consent.

STAT 774. Statistical Computing I (3). Trains students to use modern statistical software for statistical modeling and writing of technical reports. Examines many of the advanced features of most commercial statistical packages. Students perform complete statistical analyses of real data sets. Prerequisites: STAT 763 and 764 or departmental consent.

STAT 775. Applied Statistical Methods I (3). Covers selected topics from time series analysis including basic characteristics of time series, autoregression, stationarity, spectral analysis, linear filtering, ARIMA models, Box-Jenkins forecasting and model identification, classification, and pattern recognition. Prerequisite: STAT 763 with C or better or departmental consent.

STAT 776. Applied Statistical Methods II (3). Covers selected topics from multivariate analysis including statistical theory associated with the multivariate normal, Wishart and other related distributions, partial and multiple correlation, principal component analysis, factor analysis, classification and discriminant analysis, cluster analysis, James-Stein estimates, multivariate probability inequalities, majorization and Schur functions. Prerequisite: STAT 763 with C or better or departmental consent.

Please see the Graduate Catalog for courses numbered 800 and above.

Modern and Classical Languages and Literatures

The Department of Modern and Classical Languages and Literatures works to instill in students an awareness and appreciation of other languages and cultures. The department grants the Bachelor of Arts degree in modern and classical languages and literatures. Students can specialize in French, Latin, or Spanish. Minors are also available in French, German, Greek, Latin, Russian, and Spanish. Courses are also offered in Italian and Japanese. The department also offers the Master of Arts in Spanish and participates in the Master of Arts in Liberal Studies program, which may include graduate work in French, German, Greek, Latin, Russian, or Spanish.

A wide range of courses in language, literature, civilization, translation, and linguistics is offered on campus as well as in summer programs in Puebla, Mexico; Strasbourg and Orleans, France, (Wichita's Sister City); Graz, Austria; and Oaxaca, Mexico, as well as summer programs in Puebla, Mexico, and Strasbourg and Orleans, France.

Retroactive Credit Policy

Qualified students may earn Fairmount College credit for previous language experience by successfully completing a language course, or courses, at the appropriate level.

Based on their previous experience, students enroll at their predicted level. Normally, predicted entry level is calculated by assuming that one year of high school language is the equivalent to one semester of college language.

Students must apply for retroactive credit during the semester in which they are enrolled in the retroactive eligible course(s). Deadline for application will be announced in all language classes.

If a student successfully completes the course, or courses (with a grade of C or better), the student receives the graded credit hours for that course, or courses, and the appropriate number of ungraded retroactive credit hours.

Modern and Classical Languages and Literatures: French (FREN)

Specialization. A specialization in French consists of a minimum of 33 semester hours beyond FREN 210 or its equivalent, and must include the following courses: MCLI 331, FREN 223, 300, 324, 526, 551, or 552, or equivalents. In addition, 15 hours must be selected from courses numbered above 300. No fewer than 9 hours must be literature. It is strongly recommended that students specializing in French take courses in related fields such as other foreign languages, art history, English, history, and philosophy. Student Teachers. Students who plan to teach French should consult with the department's professor in charge of teacher education early in their college careers. In addition to the requirements for specialization, it is recommended that future teachers take courses beyond the general education requirements in other foreign languages, history, art history, English, or philosophy. It is also recommended that future French teachers spend at least a summer in a French-speaking country before student teaching.

Requirements for entering this program are:

1. Grade point average of 3.000 or higher in French.
2. Special departmental approval based on demonstrated proficiency in the use of both oral and written French (based on Certification and Teacher Education Regulations issued by the Kansas State Department of Education).
3. The professional foundation courses for education required by the Teacher Education Program (see College of Education).

Minor. A minor in French consists of a minimum of 12 semester hours beyond FREN 210 and must include FREN 223, 300, 324, and one upper-division French course numbered 300 or above.

Native Speakers. Native speakers are those who have completed a substantial amount of their education in a French-speaking country. Native speakers of French normally are not permitted to receive credit for 100- or 200-level courses. To complete a specialization, FREN 300 plus 15 hours of upper-division work are required. These students are advised to consult with a French professor before enrolling in French courses.

High School French. Students who have completed more than two units of high school French should consult with an advisor in the French department before enrolling in French courses.

Lower-Division Courses

FREN 111-112. Elementary French (5-8). Emphasizes the four fundamental skills in language learning: understanding, speaking, reading, and writing.

FREN 150. Workshop in French (2-4). Repeatable for credit.

FREN 210. Intermediate French (3). General education introductory course. Continues to develop the four fundamental language skills: understanding, speaking, reading, and writing; emphasizes conversation and cultural readings. Prerequisite: two units of high school French or FREN 112 or departmental consent.

FREN 215. French Study Abroad (3-6). Transfer of credit from a French-speaking university in (a) grammar, (b) conversation, (c) reading.

FREN 223. Intermediate French Readings I (3). General education further study course. Intensive reading of diverse literary works in French. Course will satisfy the LAS literature requirement. Prerequisite: FREN 210 or equivalent.

Upper-Division Courses

FREN 300. Intermediate French Readings II (3). General education further study course. Intensive reading and analysis of French literary works of all periods. Course will satisfy the LAS literature requirement. Prerequisite: FREN 223 or equivalent.

FREN 324. Intermediate Conversation and Composition (3). Improves oral and written proficiency through vocabulary.
acquisition and interactive grammar exercises. Prerequisite: FREN 210 or equivalent.

FREN 398. Travel Seminar in French (1-4). An interdisciplinary travel seminar that allows a student to gain credit for the study of one of the following: culture, art, literature, architecture, politics, society, science, and economics while visiting historic places of interest. Prerequisite: departmental consent.

FREN 481. Cooperative Education (1-4). Field placement integrating theory with a planned and supervised professional experience which complements and enhances the student's academic program. Individualized programs formulated in consultation with and approved by appropriate faculty sponsors. Repeatable for credit. Offered Cr/NC only. Prerequisite: FREN 324 or departmental consent.

Courses for Graduate/Undergraduate Credit

Upper-division courses are given on a rotating basis. FREN 300 is a prerequisite for all upper-division literature and civilization courses, unless otherwise indicated. All literature courses, including FREN 222 and 300, may fulfill the LAS literature requirement.

FREN 505. French Phonetics (3), 22, 1L. Cross-listed as LING 505. Includes articulatory phonetics, phonemes, sound/symbol correspondences, dialectal and stylistic variations. Required for future French teachers. Prerequisite: any 300-level course or departmental consent.

FREN 510. Major Topics in French (1-4). Special studies in (a) language, (b) literature, (c) commercial French, (d) the language laboratory, (e) music, (f) composition, (g) problems in teaching French, (h) civilization, (i) translation, (j) conversation, and (m) phonetics. Repeatable for credit. Prerequisite: departmental consent.

FREN 525. Advanced French Conversation (3). Designed to increase proficiency in spoken French. Assignments include oral reports, dialogs, and work in the language laboratory. Prerequisite: FREN 324 or departmental consent.

FREN 526. Advanced French Composition and Grammar (3). Emphasizes theme writing, original compositions, and detailed study of modern French grammar. Prerequisite: FREN 324 or departmental consent.

FREN 540. French Literature in English Translation (3). General education further study course. Topic varies. May be used to satisfy the LAS literature requirement and may count toward a French major or minor if readings and papers are done in French.

FREN 541. French Literature of Africa and the Caribbean in Translation (3). General education further study course. A study of the concept of Negritude through the works of major contemporary African and Caribbean writers. Knowledge of a foreign language is necessary. May be used to satisfy the LAS literature requirement and may count toward a French major or minor if readings and papers are done in French.

FREN 551. French Civilization: The Middle Ages to the Restoration (3). Emphasizes key aspects of the civilization of France as seen in its art, architecture, political structure, social evolution, and intellectual traditions. Interdisciplinary course complements studies in French language and literature. Class work and required readings are in French. Prerequisite/corequisite: FREN 300.

FREN 552. Contemporary French Civilization (3). Emphasizes the major events, themes, ideas, trends, and movements in French civilization since the Revolution. Interdisciplinary course complements French language and literature courses. Class work and readings are in French. Prerequisite/corequisite: FREN 300.

FREN 562. Seminar in French (3). Seminar in French literature, language, or civilization. Prerequisite: FREN 300. Repeatable for credit.

FREN 620. Renaissance French Literature (3). Analyzes and discusses major French works, 1500-1600. Prerequisite: FREN 300.

FREN 631. 17th Century French Literature (3). Prerequisite: FREN 300.

FREN 632. 18th Century French Literature (3). Prerequisite: FREN 300.

FREN 633. 19th Century French Literature (3). Prerequisite: FREN 300.

FREN 634. 20th Century French Literature: 1900-1945 (3). Analyzes and discusses major works of French fiction, poetry, and drama from the Belle Epoque through World War II. Prerequisite: FREN 300.

FREN 635. Introduction to Romance Language Linguistics (3). Cross-listed as LING 635 and SPAN 635. An introduction to the historical phonology and morphology of the romance languages emphasizing French and Spanish. Prerequisite: departmental consent.

FREN 636. Contemporary French Literature (3). Analyzes and discusses major works of French fiction, poetry, and drama, 1945-present. Prerequisite: FREN 300.

FREN 726. French Composition and Style (3). Offers background in rhetoric and stylistics as an approach to literary models, with a view to developing the creative use of style together with grammatical accuracy in writing. Practice in revision forms the basis of this course. Prerequisite: FREN 526 or departmental consent.

FREN 750, Workshop in French (2-4). Repeatable for credit. Please see the Graduate Catalog for courses numbered 800 and above.

Modern and Classical Languages and Literatures: German (GERM)

Minor. A minor in German consists of 11 hours beyond the 220 level. Students are permitted to count no more than one of the following for minor credit: GERM 341 or 441.

Lower-Division Courses

GERM 111-112. Elementary German (5-6). An introductory course emphasizing speaking, reading, writing, and grammar essentials. Requires daily classwork and laboratory work.

GERM 220. Continuing German (3). General education introductory course. Grammar review and cultural readings primarily for students meeting the language graduation requirement of Fairmount College. Recommended for all students with high school German and for transfer students with the college German equivalent to 112.

GERM 223. Intermediate German (3). General education further study course. Intensive reading and discussion of short works. Prerequisite: GERM 112 with a C or better or departmental recommendation to transfer from GERM 220.

GERM 225. German Conversation (2). The development of oral fluency. Prerequisite: GERM 220, 223, or concurrent enrollment in 223.

Upper-Division Courses

GERM 324. Intermediate German Conversation and Composition (2). Emphasizes development of written skills as conversational practice continues. Prerequisite: GERM 225 or instructor’s consent.

GERM 341. German in the European Context (3). Selected topics on significant aspects of life and thought in Germany. Emphasizes the modern period with special attention to interpersonal cultural trends in the European context. A knowledge of German is not required.

GERM 344. Intermediate German II (3). General education further study course. Readings in German civilization accompanied by extensive studies of selected literary works. Prerequisite: GERM 223 or equivalent.

GERM 398. Travel Seminar in German (1-4). An interdisciplinary travel seminar that allows a student to gain credit for the study of one of the following: culture, art, literature, architecture, politics, society, science, and economics while visiting historic places of interest. Prerequisite: departmental consent.

GERM 441. Culture of Contemporary Germany (3). Study of the culture and life in the Federal Republic of Germany and the German Democratic Republic from 1945 to 1989 and the new unified Germany. A knowledge of German is not required. Does not count toward fulfillment of language requirement.
Courses for Graduate/Undergraduate Credit

GERM 524. Advanced German Conversation and Composition (3). Prerequisite: GERM 324 or instructor's consent.

GERM 680. Directed Studies in German (1-3). Enrollment in any of the areas listed takes place only upon consultation with the department and agreement with the instructor concerned: (a) introduction to the study of German literature; (b) survey I: from the medieval period through the Age of Goethe; (c) survey II: 19th century to 1945; (d) contemporary literature; including the literatures of East and West Germany, 1949-1989; (e) special topics in literature, repeatable once for credit; (f) special topics in language, repeatable once for credit. Prerequisite: GERM 324 or instructor's consent.

GERM 750. Workshop in German (1-4). Repeatable once for credit.

Modern and Classical Languages and Literatures: Greek (Ancient Classical) (GREEK)

Minor. A minor in Greek consists of 11 hours beyond the 111-112 level. GREEK 398 does not count toward the minor.

Lower-Division Courses

GREEK 111. Elementary Greek (5). Presents the basic grammar of Ancient Classical Greek and emphasizes early reading.

GREEK 112. Elementary Greek (5). Continues the presentation of the basic grammar of Ancient Classical Greek and emphasizes early reading.

GREEK 223. Intermediate Greek (3). General education introductory course. Completes the presentation of the basic grammar of Ancient Classical Greek and proceeds to the study of selections from the writings of Plato and Herodotus. Prerequisite: GREEK 112 or equivalent.

GREEK 224. Intermediate Greek (3). General education further study course. Homer's Iliad. Prerequisite: GREEK 223.

Upper-Division Course

GREEK 325. Classical Mythology (3). Studies the most important myths of the Greeks and Romans. Includes the stories of creation, the gods and goddesses, the major heroes and important sagas such as Achilles, Odysseus, and the Trojan War. Sources are mainly literary, e.g., Homer, Hesiod, Virgil, and Ovid, but also includes Greek art. All readings in English, requires no previous knowledge of Latin or Greek.

GREEK 398. Travel Seminar in Greek (1-4). An interdisciplinary travel seminar that allows a student to gain credit for the study of one of the following: culture, art, literature, architecture, politics, society, science, and economics while visiting historic places of interest. Prerequisite: departmental consent.

Courses for Graduate/Undergraduate Credit

GREEK 515. Special Studies in Greek (1-4). Topic announced by instructor. Repeatable for credit. Prerequisite: GREEK 224 or instructor's consent.

GREEK 532. Advanced Greek (3). Thucydides. Prerequisite: GREEK 531.

Modern and Classical Languages and Literatures: Italian (ITAL)

The following courses are offered in Italian.

Lower-Division Courses

ITAL 111. Elementary Italian I (5). Emphasizes the four fundamental skills in language learning - listening, speaking, reading, and writing. Requires daily classroom and language laboratory work. Prerequisite: ITAL 111 or equivalent.

ITAL 112. Elementary Italian II (5). A continuation of ITAL 111 further emphasizing the four fundamental skills in language learning and a complete presentation of elementary Italian grammar. Requires daily classroom and language laboratory work. Prerequisite: ITAL 111 or equivalent.

ITAL 222. Intermediate Italian (3). Grammar review, composition, conversation, and cultural readings. Prerequisite: ITAL 112 or instructor's consent.

Upper-Division Course

ITAL 398. Travel Seminar in Italian (1-4). An interdisciplinary travel seminar that allows a student to gain credit for the study of one of the following: culture, art, literature, architecture, politics, society, science, and economics while visiting historic places of interest. Prerequisite: departmental consent.

Modern and Classical Languages and Literatures: Japanese (JAPAN)

The following courses are offered in Japanese.

Lower-Division Courses

JAPAN 111. Elementary Japanese I (5). Introduces fundamentals of pronunciation, vocabulary building, practice in understanding and speaking phrases, reading, and writing. Also includes cultural material.

JAPAN 112. Elementary Japanese II (5). A continuation of JAPAN 111, completing the basic course in Japanese. Prerequisite: JAPAN 111 or equivalent.

JAPAN 223. Intermediate Japanese I (5). Includes fundamentals of pronunciation, vocabulary building, practice in understanding and speaking phrases, reading, and writing. Draws examples from Japanese culture, politics, and society. Prerequisite: JAPAN 112 or equivalent.

JAPAN 225. Japanese Conversation (2). Develops oral fluency. Prerequisite or co-requisite: JAPAN 223.

Upper-Division Courses

JAPAN 309. Special Studies (1-3). Topic announced by instructor. Repeatable for credit. Prerequisite: instructor's consent.

Modern and Classical Languages and Literatures: Latin (LATIN)

Specialization. A specialization in Latin consists of a minimum of 30 semester hours beyond Latin 111 or its equivalent, and must include LATIN 326 and MCLI. LATIN 398 does not count toward the specialization in Latin.

Student Teachers. Students who plan to teach Latin should consult with the department's professor in charge of teacher education early in their Fairmount College careers. In addition to the requirements for specialization, it is recommended that future teachers take courses beyond the general education requirements in other foreign languages, history, art history, English, or philosophy.

Requirements for this program are:
1. Grade point average of 3.000 or higher in Latin
2. Special departmental approval based on demonstrated proficiency in the use of Latin (based on Certification and Teacher Education Regulations issued by the Kansas State Department of Education)
3. The professional foundation courses for education required by the Teacher Education Program (see College of Education).

Minor. A minor in Latin consists of a minimum of 11 hours beyond the 112 level and must include at least one 500-level course. LATIN 398 does not count toward the minor in Latin.

Lower-Division Courses


LATIN 223. Intermediate Latin (5). General education introductory course. General review of grammar with selected readings of prose and poetry. Prerequisite: LATIN 112, two years of high school Latin or departmental consent.

LATIN 224. Intermediate Latin (2). General education further study course. Selected readings of prose and poetry. May be repeated for credit when the readings vary. Prerequisite: LATIN 223 or departmental consent.

LATIN 398. Travel Seminar in Latin (1-4). An interdisciplinary travel seminar that allows a student to gain credit for the study of one of the following: culture, art, literature, architecture, politics, society, science, and economics while visiting historic places of interest. Prerequisite: departmental consent.

Courses for Graduate/Undergraduate Credit

LATIN 526. Advanced Grammar and Composition (3). Intensive study of the grammar and style of classical Latin
Modern and Classical Languages and Literatures: Russian (RUSS)

Minor. A minor in Russian consists of a minimum of 11 hours beyond the RUSS 210 level and must include at least RUSS 300 or 325 and one 500-level course.

Native Speakers, Native speakers are those who have completed a substantial amount of their education in a Russian-speaking country or school. Native speakers of Russian normally are not permitted to receive credit for 100-200 level courses. These students are advised to enroll in Russian courses.

Lower-Division Courses

RUSS 110, Russian Studies (3). Cross-listed as HIST 110 and POL S 110. Team-taught by faculty from history, political science, and modern and classical languages and literatures. Prepares students wishing to pursue additional courses and/or programs in Russian history, Russian language and literature, Russian government and politics, and/or international relations, including business. Covers medieval, czarist, Soviet, and present-day (post-Soviet) Russia.

RUSS 111, Elementary Russian (5). A presentation of the sounds and structure of Russian to develop the four basic skills of understanding, speaking, reading, and writing.

RUSS 112, Elementary Russian (5). A continuation of RUSS 111 to complete the presentation of elementary Russian grammar and enhance the four basic skills. Prerequisite: RUSS 111 or equivalent.

RUSS 210, Intermediate Russian (3). General education introductory course. Reading, grammar review, and audiovisual presentations in Russian to enhance listening comprehension, speaking, reading, and basic writing skills. Prerequisite: RUSS 112 or equivalent.

RUSS 224, Intermediate Russian (3). General Education further study course. A continuation of Russian 210: further enhancement of listening comprehension and speaking, reading, and writing skills. Prerequisite: RUSS 210 or instructor's consent.

RUSS 225, Russian Conversation and Composition (2). Development of oral and written skills. May be taken concurrently with RUSS 224. Prerequisite: RUSS 112 or instructor's consent.

Upper-Division Courses

RUSS 300, Russian Literature (3). General education further study course. Intensive reading and analysis of Russian literary works of all periods. Prerequisite: RUSS 224 or instructor's consent.

RUSS 325, Intermediate Russian Conversation and Composition (2). Continued development of speaking and listening skills, focusing on the vocabulary of everyday Russian life and idiomatic usage. Prerequisite: RUSS 224 or 225 or instructor's consent.

RUSS 398, Travel Seminar in Russian (1-4). An interdisciplinary travel seminar that allows a student to gain credit for the study of one of the following: culture, art, literature, architecture, politics, society, science, and economics while visiting historic places of interest. Prerequisite: departmental consent.

Courses for Graduate/Undergraduate Credit

RUSS 505, Special Studies in Russian (1-3). Advanced reading and translation in Russian social sciences, literature, and civilization. Repeatable for credit. Prerequisite: departmental consent.

RUSS 540, Russian Literature in English. Consideration of the works of one or two major authors, a literary movement, trend, or specific genre. No knowledge of Russian is necessary, although some is desirable. Repeatable once for credit. Prerequisite: departmental consent.

Modern and Classical Languages and Literatures: Spanish (SPAN)

Specialization. A specialization in Spanish consists of a minimum of 33 semester hours beyond SPAN 210 or its equivalent and must include the following courses: MCLL 351, SPAN 220, 223, 225, 300, 325, 525, and 526, or equivalents. In addition, 12 hours must be selected from courses numbered above 500. It is strongly recommended that students specializing in Spanish take courses in related fields such as other foreign languages, art history, English, history, and philosophy.

Student Teachers. Students who plan to teach Spanish should consult with the department's professor in charge of teacher education early in their careers. In addition to the requirements for specialization, it is recommended that future teachers take courses beyond the general education requirements in other foreign languages, art history, English, or philosophy. It is also recommended that future Spanish teachers spend at least a summer in a Spanish-speaking country before student teaching.

Requirements for this program are:
1. Grade point average of 3.00 or higher in Spanish
2. Special departmental approval based on demonstrated proficiency in the use of both oral and written Spanish (based on Certification and Teacher Education Regulations issued by the Kansas State Department of Education)
3. The professional foundation courses for education required by the Teacher Education Program (see College of Education).

Minor. A minor in Spanish consists of a minimum of
Lower-Division Courses

SPAN 111-112, Elementary Spanish (5-5). Emphasizes the four fundamental skills in language learning: understanding, speaking, reading, and writing.

SPAN 150, Workshop in Spanish (2-4). Repeatable for credit.

>SPAN 210, Intermediate Spanish (5). General education introductory course. Continues the four fundamental skills in language learning: understanding, speaking, reading, and writing. Emphasizes conversation and cultural readings. Prerequisite: SPAN 112, two units of high school Spanish, or departmental consent.

SPAN 215, Intermediate Spanish II (3). Intensive review of Spanish; special emphasis on conversation. Course offered only in Puebla, Mexico. Prerequisite: SPAN 112, two units of high school Spanish, or departmental consent.

SPAN 220, Intermediate Spanish Grammar and Composition (3). Prerequisite: SPAN 210 or three units of high school Spanish or departmental consent.

>SPAN 223, Selected Spanish Readings (3). General education further study course. Intensive reading of Latin-American and Spanish literary works. Also includes outside readings and reports. Course will satisfy the LAS literature requirement. Prerequisite: SPAN 210 or three units of high school Spanish or departmental consent.

SPAN 225, Spanish Conversation I (2). Prerequisite: SPAN 210 or three units of high school Spanish or departmental consent. Should be taken with SPAN 220.

Upper-Division Courses

>SPAN 300, Intermediate Spanish Readings (3). General education further study course. Intensive reading and analysis of Spanish literary works of all periods. Course will satisfy the LAS literature requirement. Prerequisite: SPAN 223 or departmental consent.

SPAN 325, Spanish Conversation II (3). Continuation of SPAN 225 with continued emphasis on fluency in Spanish and on vocabulary building. Prerequisite: SPAN 225 or departmental consent.

SPAN 398, Travel Seminar in Spanish (1-4). An interdisciplinary travel seminar that allows a student to gain credit for the study of one of the following: culture, art, literature, architecture, politics, society, science, and economics while visiting historic places of interest. Prerequisite: departmental consent.

SPAN 481, Cooperative Education Spanish (1-4). Provides a field placement which integrates theory with a planned and supervised professional experience designed to complement and enhance the student's academic program. Individualized programs formulated in consultation with and approved by appropriate faculty sponsors. Repeatable for credit. Offered Co/NCr only. Prerequisite: SPAN 220 or departmental consent.

Courses for Graduate/Undergraduate Credit

Upper-division courses are given on a rotating basis. SPAN 300 is a prerequisite for all upper-division literature and civilization courses, unless otherwise indicated. All literature courses, including SPAN 223 and 300, may fulfill the general education literature requirement.

SPAN 505, Spanish Phonetics (2). Cross-listed asLING 505. Includes articulatory phonetics, phonemes, sound-symbol correspondences, dialectical and stylistic variations. Required for future Spanish teachers. Prerequisite: any 200-level course or departmental consent.

SPAN 515, Major Topics in Spanish (1-4). Special studies in (a) language, (b) literary criticism, (c) commercial Spanish, (d) the language laboratory, (e) music, (f) composition, (g) problems in teaching Spanish, (h) advanced conversation. Repeatable for credit. Prerequisite: departmental consent.

SPAN 525, Spanish Conversation III (2). Increases proficiency in spoken Spanish. Assignments include oral reports and dialogues. Prerequisite: SPAN 325 or departmental consent.

SPAN 526, Advanced Spanish Grammar and Composition (3). Prerequisite: SPAN 220 or departmental consent.

SPAN 531, Survey of Spanish Literature (3). Main currents of Spanish literature from 1700 to the present. Prerequisite: SPAN 300 or departmental consent.

SPAN 532, Survey of Spanish Literature (3). Spanish literature from the beginning to 1700. Prerequisite: SPAN 300 or departmental consent.

SPAN 534, Contemporary Spanish Theater (3). Prerequisite: SPAN 300 or departmental consent.

SPAN 535, Contemporary Spanish Novel (3). Prerequisite: SPAN 300 or departmental consent.

SPAN 540, Contemporary Spanish Literature in English Translation (3). Content may vary from semester to semester, including Spanish and/or Latin-American literature. No knowledge of a foreign language is necessary. May be used to satisfy the general education literature requirement. Prerequisite: SPAN 300 or departmental consent.

SPAN 552, Business Spanish (3). Provides the opportunity to learn and practice commercial correspondence, business vocabulary, translation, and interpretation of business texts. Prerequisite: SPAN 526.

SPAN 557, Literary and Technical Translating in Spanish (3). Extensive translation of literary works and technical and legal documents from Spanish to English and English to Spanish. Prerequisite: SPAN 526 or departmental consent.

SPAN 560, Survey of Latin-American Literature (3). Main currents of Latin-American literature, 1500-1800. Prerequisite: SPAN 300 or departmental consent.

SPAN 561, Survey of Latin-American Literature (3). Main currents of Latin-American literature, 1800-present. Prerequisite: SPAN 300 or departmental consent.

SPAN 625, Special Studies in Spanish (1-4). Topic for study chosen with aid of instructor. Repeatable for credit. Prerequisite: instructor's consent.

SPAN 628, Seminar in Spanish (1-5). Seminar in Spanish literature, language, or civilization. Repeatable for credit. Prerequisite: SPAN 300.

SPAN 629, Seminar in Latin-American Civilization (3). Intensive study of Spanish culture, including historical and geographical factors in its development and its contributions to world civilization. Prerequisite or co-requisite: SPAN 300 or departmental consent.

SPAN 626, Spanish Civilization (3). Intensive study of Spanish culture, including historical and geographical factors in its development and its contributions to world civilization. Prerequisite or co-requisite: SPAN 300 or departmental consent.

SPAN 627, Latin-American Civilization (3). Intensive study of Latin-American culture, including the historical and geographical factors of its development and its contributions to world civilization. Prerequisite or co-requisite: SPAN 300 or departmental consent.

SPAN 628, Contemporary Latin-American Theater (3). A study of contemporary theater, 1900-present. Prerequisite: SPAN 300 or departmental consent.

SPAN 631, Latin-American Short Story (3). Study of the main writers in contemporary Latin-American literature. Prerequisite: SPAN 300 or departmental consent.

SPAN 635, Introduction to Romance Linguistics (3). Cross-listed as FREN 635 and LING 635. An introduction primarily...
Philosophy (PHIL)

The study of philosophy is relevant to all aspects of life and can be pursued fruitfully at many levels. Philosophical thought may direct itself to such diverse topics as the nature of reality, the conditions of knowledge, the justifications for political authority, the reality of subatomic particles, the existence of God, the criteria of aesthetic evaluation, the structure of logical reasoning, and the foundations (if any) of morality. Because of the breadth of the philosophical enterprise, the study of philosophy can be approached from many directions and need not involve a hierarchy of prerequisites. Philosophy majors pursue many careers—teaching, law, medicine, city management, and sales. The philosophy department reflects the breadth and diversity of the philosophical enterprise and offers a wide variety of courses.

Major. A major requires a minimum of 27 hours of philosophy courses, at least 15 of which must be in courses numbered 300 or above. Each philosophy major must meet with a departmental advisor at least once a semester to plan or review a program of study. These programs are designed in terms of the individual student's interests and future plans. Up to 12 hours of philosophy courses taken before the decision to major in philosophy may count toward a major. Additional hours may be counted with the advisor's consent.

Minor. A minor consists of 15 hours of philosophy courses, selected in consultation with a departmental advisor, that orient students to the philosophic aspects of their major fields.

Lower-Division Courses

- **PHIL 100. The Meaning of Philosophy (3).** General education introductory course. An exploration of the meaning of philosophic activity. Through an examination of several basic interpretations of the distinguishing intentions, characteristic procedures, and essential functions of the philosophic endeavor, course introduces some of the fundamental problems and possible values of philosophy. Develops a broad understanding of the meaning of philosophy as a diverse and self-critical historical enterprise.

- **PHIL 125. Introductory Logic (3).** General education introductory course. Deals with the uses of logical concepts and techniques to evaluate and criticize reasoning. Studies some elementary systems of formal logic. Arguments evaluated are drawn from such diverse fields as law, science, politics, religion, and advertising.

- **PHIL 129. University Experience (3).** An examination of the structure, process, and problems of university education in the contemporary setting. Attends especially to the personal, moral, and spiritual problems and opportunities presented by the modern university experience. Provides clarification and guidance in understanding the university and in choosing one's own future.

- **PHIL 144. Moral Issues (3).** General education introductory course. An introduction to philosophical thought about ethics. Discusses a number of contemporary moral issues and considers various philosophical approaches to their solutions.

Upper-Division Courses

- **PHIL 300. Science and the Modern World (3).** General education issues and perspectives course. Develops an understanding of the methods and accomplishments of science and how these have affected the way people understand themselves, society and the universe. The approach is both historical, with respect to the re-creation of the prescientific world view and the developments of science, and analytic with respect to understanding the goals, methods, and limits of contemporary science. No prerequisite but prior completion of general education requirements in science is desirable.

- **PHIL 301. Language and Philosophy (3).** General education further study course. Cross-listed as LING 301. Examines the relationships between philosophy and language. Focuses on questions such as: What is the relation between language and thought? Language and the world? What can the study of language contribute to the resolution of philosophical problems?

- **PHIL 302. Values and the Modern World (3).** General education issues and perspectives course. Examines the philosophical pressures on values wrought by rapid modern cultural and technological change. Explores the relations between social values and social institutions, provides a framework for critically and objectively thinking about moral values, and considers various standards proposed for resolving moral dilemmas.

- **PHIL 303. Nineteenth Century Philosophy (3).** A study of selected 19th century philosophers or systems of thought such as Fichte, Schelling, Hegel, Schopenhauer, Marx, Mill, Bradley, Kierkegaard, Peirce, Nietzsche, Comte, Dillthey, Scheler-machere, idealism-materialism, positivism, empiricism, and pragmatism.

- **PHIL 305. Analytic Philosophy (3).** General education further study course. Studies the rise of analytic philosophy in the 20th century, emphasizing the themes uniting philosophers who originated modern philosophical analysis. Includes the nature of analysis and the relationship between analysis and classical philosophical problems, such as the nature of reality, the nature of knowledge, the nature of language, the nature of morality.

- **PHIL 311. Philosophy of Law (3).** General education further study course. An introduction to philosophical problems arising in the theory and practice of law, includes the objective basis of legal systems, the relationship between morality and legality, the justifiability of civil disobedience, the limits of legal constraints on the individual, and the nature and justification of punishment. Attention to classical and contemporary readings.

- **PHIL 313. Political Philosophy (3).** General education further study course. Examines various philosophical issues concerning political systems. Discusses issues such as the nature of political authority, the rights of individuals, constitutionalism, and civil disobedience.

- **PHIL 315. Late Modern Philosophy (3).** General education further study course. A study of philosophical thought in the 18th century with selections from philosophers such as Berkeley, Hume, Reid, Adam Smith, Butler, Hume, Wolff, and Kant, and movements such as empiricism, rationalism, the Scottish common sense school, and idealism.

- **PHIL 320. Philosophy of Science (3).** General education further study course. A study of the methods, goals and world views of the sciences with attention to such topics as the structure and evaluation of scientific theories, the nature of explanation, the dynamics of scientific revolutions, and the impact of science on human society and values.

- **PHIL 322. Early Modern Philosophy (3).** General education further study course. Studies philosophical thought in the period from the Renaissance through the 17th century with selections from philosophers such as Pico, Vico, Galileo, Cusanus, Teleseio, Erasimus, More, Hobbes, Bacon, Machiavelli, Descartes, Spinoza, Leibniz, Malebranche, and Locke.

- **PHIL 325. Formal Logic (3).** Cross-listed as LING 325. Studies systems of formal logic including sentential and predicate logic. Emphasizes the uses of these systems in the analysis of arguments.

- **PHIL 327. Bioethics (3).** General education further study course. Examines ethical issues related to health care such as truth-telling to patients, confidentiality, euthanasia, abortion, prenatal obligations, and distribution of health care.

- **PHIL 331. Ancient Greek Philosophy (3).** General education further study course. Examines the development of Greek philosophy in its major phases, including an exploration of the
PHIL 345. Philosophy of Sex and Love (3). Examines the ethical, metaphysical, and conceptual dimensions of sex and love. Includes the nature of sex, sexual perversion, homosexuality, pornography, sadomasochism, the nature and varieties of love, the features of love, and the relationship between love and sex. Uses selections from writings of both historical and recent authors.

PHIL 346. Philosophy of Religion (3). General education further study course. Cross-listed as REL 346. Examines some basic religious problems such as the nature and grounds of religious belief, religious language, the existence and nature of God, human immortality, and the problem of evil.


PHIL 354. Ethics and Computers (3). General education further study course. Ethics with application to the ethical issues which may arise from the use of computers, including the moral responsibility of computer professionals for the effect their work has on persons and society; the moral obligations of a computer professional to clients, employer, and society; the conceptual and ethical issues surrounding the control and ownership of software; and the justifiability of regulation of the design, use, and marketing of computer technology. Prerequisite: junior standing or departmental consent.

PHIL 360. Ethical Theory (3). General education further study course. A study of selected topics in ethics. Investigates issues such as the meaning and justification of moral judgments, the nature of morality, the relations between normative categories and the concept of justice, and the problem of revolution in moral schemes. Prerequisite: one course in philosophy.

PHIL 375. Philosophy of the Arts (3). Intensively examines one or more fundamental problems or themes in the philosophy of art or in the specific aesthetics of painting, music, sculpture, literature, drama, movies, and so forth. Includes the problem of tragedy, the character of the aesthetic attitude, the function of the arts, the legitimacy of general art theory, the presuppositions of specialized art theory, the creative act, art and truth, art and life, and the nature and function of art criticism.

PHIL 385. Engineering Ethics (3). General education issues & perspectives course. An examination of representative ethical issues that arise in engineering. Topics include: professional responsibility and integrity; whistle-blowing; conflict of interest; ethical issues in engineering consulting and research; engineering and environmental issues; and engineering in a global context.

PHIL 400. Honors Seminar (3). Cross-listed as HNR 400. An honors course on a special topic, to be announced. Repeatable for credit up to 6 hours. Prerequisite: honors student or departmental consent.

PHIL 459. Truth and Reality (3). A survey of philosophical theories of truth, including the correspondence, pragmatic, and deflationary theories. Topics to be covered include skepticism, realism and anti-realism, and social constructionism. Reading may include selections from figures such as James, Peirce, Dewey, Wittgenstein, Russell, Tarski, Quine, Davidson, Austin, Strawson, Field, Hacking, and Horwich.

PHIL 421. Philosophy of Mind (3). Critically examines courses for Graduate/Undergraduate Credit.

PHIL 518. Recent British-American Philosophy (3). Examination of philosophical ideas and movements in recent British and American philosophy. Discusses movements such as logical positivism, pragmatism, ordinary language philosophy, and analytic philosophy. Readings are selected from figures such as Russell, Wittgenstein, Pierce, Dewey, and Quine.

PHIL 519. Empiricism (3). A study of the philosophical views that emphasize sensory experience rather than reasoning as a source of knowledge with particular attention to the philosophies of Hobbes, Locke, Berkeley, Hume, and Mill.

PHIL 540. Theory of Knowledge (3). A critical examination of the nature of knowledge and of the philosophical problems concerning skepticism, knowledge of the self, material objects, other minds, the past, present, and future; universals; and necessary truths. Includes selections from both historical and recent writings. Prerequisite: one course in philosophy.

PHIL 546. Rationalism (3). A study of the philosophical views that emphasize reasoning rather than sensory experience as the source of knowledge with particular attention to the philosophies of Descartes, Spinoza, and Leibniz.

PHIL 549. Topics in Ancient Philosophy (3). Explores one decisive issue in philosophy from the time of Thales through the Stoics. The examination of an issue may continue itself to one period within the total span of ancient philosophy or it may trace the issue throughout the span, indicating its contemporary treatment. Some issues treated are the nature of what is, the concept of the sacred, the meaning of truth, the relation of invariance and process, the existence of universal standards of thought and conduct, the problem of knowledge, skepticism, the nature of language, and the character of philosophical inquiry.

PHIL 550. Metaphysics (3). An exploration of some basic topics in the theory of reality. Includes such notions as space, time, substance, causality, particulars, universals, appearance, essence, and being. Prerequisite: one course in philosophy.

PHIL 555. Philosophy of the Social Sciences (3). Studies such topics as the relations of social science with natural science and philosophy; methodological problems peculiar to social science; the nature of sound explanation concepts, and constructs and the roles of mathematics and formal theories in social science.


PHIL 585. Studies in a Major Philosopher (3). A concentrated study of the thought of one major philosopher announced by the instructor when the course is scheduled. Repeatable for credit. Prerequisite: instructor's consent.

PHIL 590. Special Studies (3). Topic for study announced by instructor. Repeatable for credit. Prerequisite: instructor's consent.

PHIL 699. Directed Reading (2-3). For the student interested in doing independent study and research in a special area of interest. Repeatable for credit. Prerequisite: departmental consent.

Please see the Graduate Catalog for courses numbered 800 and above.

Physics (PHYS)

Physics is the fundamental science—it is the study of matter and energy and their interactions. Physics is the basis for all science and for all applied science and engineering. Physicists study everything from elementary particles to galaxies, from semiconductors to chaos.

Because physics is the basic underpinning for all of science and technology, physics majors have many career alternatives. Many continue their education at graduate and professional schools—in physics or in chemistry, biology, geology, engineering, medicine, law, or business. Those who enter the job market directly find their knowledge and technical skills, particularly in problem solving, modeling, computers, and electronics, to be strong selling points.

Major. The following courses are required for a physics major: PHYS 213-214 or 313-314-315-316, 251, 261, 361, 441, and 561; MATH 355 and 545, 547, or 757; and 5 hours in chemistry.

For the Bachelor of Arts (BA) degree, 2 additional hours of PHYS 516, 517, or 616 plus 6 hours of upper-division physics electives are required.

For the Bachelor of Science (BS) degree, 3 additional electives chosen from PHYS 516, 517, and 616; 8 additional upper-division hours in physics; and 5 additional hours in chemistry are required.

Chemical Physics Option. A student majoring in physics may select a chemical physics option. This...
PHYS 195. Introduction to Modern Astronomy (3).
Primarily for general students with little or no background in a science or math. May include exploration of the physical and astronomical sciences. Prerequisite: PHYS 111 or equivalent.

PHYS 213. General College Physics I (6). Gen. education introductory course. Mechanics, heat, and wave motion. For students with a working knowledge of algebra and trigonometry but who have had no calculus. Prerequisite: High school trigonometry or MATH 112.

PHYS 214. General College Physics II (6). Gen. education further study course. Continuation of PHYS 213. Electricity, light, and modern physics. Prerequisite: PHYS 213 or 313.

Upper-Division Courses

PHYS 313. University Physics I (4). Gen. education introductory course. First semester of a calculus-based physics sequence. Studies mechanics, heat, and wave motion. High school physics or PHYS 131 is assumed as prerequisite for this course. Natural science majors are required to take the lab, PHYS 315, that accompanies this course. Credit is not given for both PHYS 213 and 313. Co-requisite: PHYS 214.

PHYS 314. University Physics II (4). Gen. education further study course. Second semester of a calculus-based physics sequence. Studies electricity, magnetism, and light. Natural science majors are required to take the lab, PHYS 316, that accompanies this course. Credit is not given for both PHYS 214 and 314. Prerequisites: Math 243 with a grade of C or better and PHYS 213 with a B or better or PHYS 313.


PHYS 320. Scientific Thinking (10). Gen. education issues and perspectives course. How science, particularly physics, is done: How do we know what we know? What do we mean when we say, as scientists, that we understand a phenomenon? How do we approach a problem? Emphasizes the nature of science rather than particular theories. Includes an appreciation of science as a human intellectual activity and of the picture that modern physics gives us of the universe. No prerequisites.

PHYS 355. Solar System Astronomy (3). Gen. education further study course. Studies the sun, major planets, and minor bodies of the solar system, particularly their nature and origin. Discusses classical ground-based observations and the results of satellite investigations. Primarily for students with little prior contact with science.

PHYS 481. Cooperative Education in Physics (1-4). Complements and enhances the student's academic program by providing an opportunity to apply knowledge gained through coursework to job-related situations. No more than 4 hours earned in PHYS 481 may be applied toward satisfying the requirements for a major in physics. Offered CR/NC only. Prerequisite: departmental consent.

Courses for Graduate/Undergraduate Credit

PHYS 501. Special Studies in Physics for Educators (1-3). 3L. A series of courses covering basic physical concepts which provide physical science background for teachers. Repeatable for a maximum of 5 hours. Prerequisite: in-service or preservice teacher.

PHYS 502. Science Investigations: Physics (5). Introductory course for prospective teachers. Basic physics concepts in mechanics, heat, and electricity and magnetism developed through laboratory investigations. Emphasizes science process skills and the nature of the scientific endeavor. Prerequisite: MATH 111 or equivalent.

PHYS 516. Advanced Physics Laboratory (2). 4L. Experiments in classical and modern physics to stress scientific methods and experimental techniques. The experiments are open-ended, requiring individual study. Repeatable up to a maximum of 8 credit hours. Co-requisite: PHYS 551.

PHYS 517. Electronics Laboratory (2). 1R. 3L. Experiments in electronics that supplement some of the applications of electronics in scientific research. Experiments cover the use of vacuum tubes, semiconductors, and digital circuits. Prerequisite: PHYS 314.

PHYS 551. Topics in Modern Physics (3). An introduction to selected areas of modern physics emphasizing the features of atomic nuclear and solid state physics that require modification of classical physics for their explanation. Prerequisite: PHYS 214 or 314 or departmental consent. Co-requisite: MATH 344.

PHYS 555. Modern Optics (3). Geometrical and physical optics, coherence theory, and Fourier optics. Additional topics may include radiation, diffraction, classical properties of solids, and optical data processing. Prerequisites PHYS 214 or 314 and MATH 344.

PHYS 600. Individual Readings in Physics (1-3). Repeatable but total credit may not exceed 6 hours for physics majors. Prerequisite: departmental consent.

PHYS 601. Individual Readings in Astrophysics (1-3). Studies several topics in astronomy and astrophysics in depth. Lectures, independent readings, and student projects may be assigned. May be repeated up to 6 hours. Prerequisite: instructor's consent.

PHYS 616. Computational Physics Laboratory (2). 1R. 2L. Provides a working knowledge of computational techniques with applications in both theoretical and experimental physics, including an introduction to the FORTRAN language. Prerequisites: PHYS 551 and MATH 555.
PHYS 621. Elementary Mechanics (3). Motion of a particle in one and several dimensions, central forces, the harmonic oscillator, and the Lagrangian formulation of mechanics. Prerequisites: PHYS 214 or 314 and MATH 344 with grades of C or better.

PHYS 633. Electricity and Magnetism (3). Direct and alternating current; electric and magnetic field theory, including an introduction to Maxwell's electromagnetic wave theory. Prerequisites: PHYS 214 or 314 and MATH 344 with grades of C or better.

PHYS 641. Thermodynamics (3). The laws of thermodynamics, distribution functions, Boltzmann's equation, transport phenomena, fluctuations, and an introduction to statistical mechanics. Prerequisites: PHYS 214 or 314 and MATH 344.

PHYS 651. Quantum Mechanics (3). Introduction to quantum mechanics, the Schrodinger equation, elementary perturbation theory, and the hydrogen atom. Prerequisite: PHYS 551.

PHYS 681. Solid State Physics (3). A one-semester introduction to solid state physics, which explores and explains—in terms of the microscopic processes that produce them—the thermal, mechanical, and electronic properties of solids. Discusses practical applications and interdisciplinary material. Prerequisite: PHYS 551.

*Course may not be counted for credit toward an NS in physics.

Please see the Graduate Catalog for courses numbered 800 and above.

Political Science (POL S)

Political Science is the study of politics, which concerns activities and processes involved in managing social conflict and in distributing to a society's members those things which are valued in that society. Because government is a principal social institution created to assist in such endeavors, political science also involves the study of agencies, processes, and activities associated with governments. Long ago Aristotle observed that "man by nature is a political animal," any knowledge of humans and their societies without attention to their political aspects would be an incomplete understanding.

The study of political science at Wichita State University involves courses in four subject fields: American politics and institutions, comparative politics, international politics, and political theory and philosophy. It is recommended that students broaden their educations with courses in the humanities and in the other social sciences and that they enhance their analytical skills through courses in statistics and computer applications.

Students who wish to pursue a professional career in public service should consider the political science major with an emphasis in public administration; this option combines the traditional major with other courses selected for their relevance to administrative careers in government. The courses outside of political science have been chosen to fit the general education curriculum and elective hours so that students may still graduate within the 124-hour minimum for a Bachelor of Arts degree.

Students who earn political science degrees often enter public service, pursue legal careers, become teachers at secondary or post-secondary levels, seek careers in politics, or become members of the business community. The broad fields of knowledge that they gain as undergraduates, along with the development of their communications and analytic skills, prepare them for a wide variety of career and professional paths.

Major. A major consists of POL S 121, 220, 226, 232, and 600 and 18 additional hours of study distributed in the following fashion:


Service classes, special topics classes, and directed readings classes in the major (0-6 hours)—Students may elect to earn a maximum of six hours' credit toward the political science major from the following courses: POL S 153, 353, 390, 398, 461, 490.

Exception for Washington-Topeka Interns—Students who earn 6 hours' credit in POL S 490 while serving as interns in Washington or Topeka may apply those 6 hours toward the political science major and may also earn up to 3 hours' credit in POL S 398, which may also apply to the 33 hours of political science required of majors.

Minor. A minor consists of POL S 121 and 12 additional hours, at least 6 of which must be in upper-division courses.

Public Administration Emphasis in Political Science. The goal of this emphasis is to provide students an educational foundation for jobs at basic levels of public service and for graduate study in public administration. Students should note that an undergraduate degree is usually not considered sufficient educational preparation for a professional career in this field.

Political Science (33 hours) — POL S 121, 232, 319, 321, and 580; students must also elect two of the following courses — POL S 315, 316, 317, and 551; elect one course from POL S 226, 320, 330, 523, and 524; elect one course from POL S 220, 336, 337, 333, and 534; earn a minimum of 3 hours of internship, POL S 490; and complete the 33-hour requirement with political science electives.

Other social sciences (12 hours) — ECON 201 and 202; one course from among ANTHR 102 and ETH S 100 or 210; either PSY 111 or SOC 111.

Other requirements (15-16 hours) — one of the following courses — ECON 231, SOC 501, or STAT 370; SOC 312; both ACCT 210 and 220; and one of the following courses — CS 155, MIS 495, or PADM 625.

Electives (12 hours) — ENGL 210; HIST 313 and 311; PHIL 144; ACCT 260; FIN 340; HRM 466, 664, and 666; MGMT 360, 362, 430, and 462; and PADM 501.

Lower-Division Courses

POL S 103. Games Nations Play: Problems in International Relations (3). Familiarizes students with a number of international problems that will be of part of their lives and to create a framework in which the students can analyze the international problems they encounter in the future.

POL S 110. Russian Studies (3). Cross-listed as RUS 110 and HIST 110. Team-taught by faculty from history, political science, and modern and classical languages and literatures. Prepares students wishing to pursue additional courses and-or programs in Russian history, Russian language and literature, Russian government and politics, and-or international relations, including business. Covers medieval, czarist, Soviet, and present day (post-Soviet) Russia.

> POL S 121. American Politics (3). General education introductory course. An analysis of the basic patterns and structure of the American political system emphasizing policies and problems of American politics.

POL S 150. Political Science Workshop (1-3). Prerequisite: instructor's consent.


> POL S 220. Introduction to International Relations (3). General education introductory course. Examines approaches to the study of international relations. Includes foreign policy, international conflict and conflict management, international organizations and law, development, and globalization. Either POL S 220 or 334, but not both, may be accepted toward a major in history.

> POL S 226. Comparative Politics (3). General education introductory course. Analyzes the basic patterns and structures of Western democratic and political systems, transitional systems, and dictatorial or totalitarian systems.

> POL S 232. Basic Ideas in Political Theory (3). General education issues and perspectives course. Shows the direct relationship between political philosophy and practical political structures and policies. Examines the political philosophies of six important Western philosophers at an introductory level. Studies different models of democracy to demonstrate the relationship between a set of basic philosophic assumptions and the political society that seems appropriate to that set of assumptions. Examines one or two major political issues to illustrate the various kinds of solutions that may be suggested by different political philosophies.

Upper-Division Courses

> POL S 315. The Presidency (3). General education further study course. Focuses upon the evolution of the presidential office, the recruitment of presidents, and the nature of presidential power.
POL S 316. The Congress (3). General education further study course. Focuses on the Congress with particular attention to interest articulation at both state and national levels.

POL S 317. Urban Politics (3). General education further study course. Analyzes politics in urban areas, including the nature and distribution of community power, influence and leadership, the nature of community conflict, the formation of policy, urban problems, and political solutions and trends in urban politics.

POL S 318. Political Parties (3). General education further study course. The role of political parties in the American political decision-making process at the national, state, and local levels.

POL S 319. State Government (3). General education further study course. Examines the role of the states in the federal system and compares state politics and their political institutions.

POL S 320. Politics of Developing Areas (3). General education further study course. Surveys the political systems in Latin America, Africa, the Middle East, and south and southeastern Asia. Special attention to colonialism as a system, the effects of colonialism, and patterns of emerging nations.

POL S 321. Introduction to Public Administration (3). A general survey of the scope and nature of public administration; policy and administration; administrative regulations and adjudication; organization and management; budgeting and fiscal management; public personnel administration; political, judicial, and other controls over the administration.

POL S 325. Women in the Political System (3). Cross-listed as WOM S 325. Examines the political process of policy making using policies of current interest concerning women. Explores the association of societal gender roles and expectations with existing and proposed public policies that pertain to women's lives. Prerequisite: 6 hours of social science or instructor's consent.

POL S 330. Post-Communist Europe (3). Systematically studies contemporary political developments in the former Soviet Union and East Europe. Examines major policy-making institutions and processes and considers the fundamental principles on which the political system is based. Includes selection of leaders and their roles in policy-making legislative bodies; organization and representation of interest groups; political parties and elections; international aspects of the educational system, the media, religious institutions, and ethnicity.

POL S 336. International Organizations (3). General education further study course. Focuses on the role of international organizations in the international system. Emphasizes the United Nations. Also covers some regional organizations. Either POL S 220 or 336, but not both, may be accepted toward a major in history.

POL S 337. Causes of War and Peace (3). General education further study course. This course explores the causes of war on three different levels of analysis: international, domestic, and individual. It examines historical conflicts as well as more recent wars, and the diplomatic efforts that have been made to achieve lasting peace settlements.

POL S 345. Classical Medieval Political Theory (3). General education further study course. Examines the beginnings of Western political philosophy through works of Plato and Aristotle. This original body of political ideas dominated the Western world for more than 2,000 years. Traces the changes in emphasis that occurred in this tradition through the Roman Stoics and the religious philosophers of the Middle Ages. Familiarity with these early political ideas is a major contribution to understanding subsequent political philosophies.


POL S 358. American Political Thought (3). General education further study course. Considers selected topics in the development of political ideas in the United States.

POL S 390. Special Topics in Political Science (1-3). General education further study course. An analysis of selected titles in political science in a seminar setting. Content varies depending upon the instructor. Repeatable for credit. Prerequisites: senior standing and departmental consent.

POL S 399. Directed Readings (1-3). For exceptional students to meet their needs and deficiencies. Repeatable for credit. Prerequisites: senior standing and departmental consent.

POL S 399. Travel Seminar (1-4). An interdisciplinary travel seminar that allows students to gain credit for the study of culture, art, literature, architecture, politics, society, science, and/or economics while visiting historic places of interest. Students observe the political systems of the places they visit, analyze their dynamics, and demonstrate their understanding of those systems through a project which has the approval of the department's advisor.

POL S 444. Modern Political Theory (3). General education further study course. Continues the study of Western political philosophy beginning with the decisive break with the classical tradition made by Machiavelli early in the 16th century. Studies major philosophers Hobbes, Locke, and Rousseau, known as philosophers of the social contract who exercised a great influence on the creation of the American political system. Also studies Marx, a political thinker who moved strongly in the direction of 20th century political philosophy. Philosophers of this period have collectively had a profound impact on political life in this century.

POL S 481. Cooperative Education in Political Science (1-3). Provides practical experience to complement the student's more formal political science curriculum. Student programs must be approved by the department. Offered Credit/No Credit only.

POL S 480. Internship in Government/Politics. 0-61. (Washington, & Topeka, 3). Credit for an approved work experience in a public, quasi-public, or governmental agency, including an academic component. Washington interns participate in the program co-sponsored with the University of Kansas for which an on-site coordinator is provided. Kansas legislative interns spend two days per week in Topeka while the legislation is in session. Both internships offered each spring semester. Prerequisites: sophomore or upper-class standing, POL S 121 or equivalent, and instructor's consent.

Courses for Graduate/Undergraduate Credit

POL S 523. Government and Politics of Latin America (3). General education further study course. An examination of the political institutions and processes that currently exist in the Latin American republics. Emphasizes the social, economic and psychocultural factors affecting these institutions and processes.

POL S 524. Politics of Modern China (3). General education further study course. Studies China's political system since 1949 in terms of non-Western goals and ideas of social organization. Uses themes of political integration and political development to minimize distortion or cultural bias. Encompasses the roots of the political system, the system as it is now; and the goals China is striving to realize. Some assessment about the future development of communism in China. Includes Chinese communism and the ideological heritage; political culture; political leadership; leadership succession; political participation; the Chinese Communist Party; political communications and socialization; legal developments; policy choices; and major events, such as the Hundred Flowers Campaign, Great Leap Forward, and the Proletarian Cultural Revolution.

POL S 533. U.S. Foreign Policy (3). General education further study course. This course explores the dynamic decision-making process in the development of U.S. foreign policy. It examines the variety of actors involved, including the military, the State Department, the President, and others. Bilateral as well as global policy issues are examined.

POL S 534. Comparative Foreign Policy (3). General education further study course. Examines the foreign policies and the decision-making structures and processes of various countries.

POL S 547. Contemporary Political Theory (3). General education further study course. Introduces the radically new ideas that emerged in the last century as a result of Darwin's theory of evolution, the doctrine of historicism, and the growth of modem science and explores their impact upon political thought. Although the multiplicity of philosophies makes generalization difficult, most of them draw strength from common sources. Studies philosophers such as Hans Kelsen, William Barrett, Friedrich Nietzsche, and John Dewey. Covers the importance of these new philosophies upon political structures and issues.

POL S 551. Public Law (3). General education further study course. An analysis of the role of appellate courts—especially of the U.S. Supreme Court—in the American political system. Emphasizes judicial review of state and federal legislation,
the separation of powers, federalism, the taxing power, and the commerce clause.


POL 600. Senior Seminar (3). Required of all political science majors. Includes segments on each of the four major fields of the discipline: American politics, comparative politics, international relations, and political theory, so students can integrate their prior learning experiences within the discipline. Prerequisite: departmental consent.

POL 700. Advanced Directed Readings (3). Repeatable for credit. Prerequisite: departmental consent.

POL 570. Method and Scope of Political Science (3). Emphasizes critical thinking (as distinguished from method and technique) and exposes students to recent works of methodological import in the various subfields within the discipline. Prerequisite: departmental consent.

POL 703. Professional Seminar in Political Science (3). Introduces entering graduate students to the various subfields of the discipline. Should be taken the first or second semester of graduate study.

POL 5710. Public Sector Organizational Theory and Behavior (3). Cross-listed as PADM 710. Review of the scope of the field of public administration including a survey of key concepts and schools of thought underlying the field and identification of issues shaping the future development of the field.

POL 5725. Public Management of Human Resources (3). Cross-listed as PADM 725. Surveys the major areas of management of human resources in the public sector. Includes hiring, training, evaluation, and pay promotion policies. Emphasizes the laws governing public personnel management and the unique merit, equal employment opportunity, productivity utilization, and collective bargaining problems found in the public sector.

POL 750. Workshop (2-4). Prerequisite: instructor's consent.

Please see the Graduate Catalog for courses numbered 800 and above.

Psychology (PSY)

The course of study is designed to provide a breadth of knowledge in the field of psychology. Accordingly, the major requires students to choose courses from foundation areas (Group 1); traditional human oriented areas (Group 2); and applied areas (Group 3).

The program is designed to provide students with a broad understanding of the role of the appellate courts—especially the U.S. Supreme Court—in the American political system. Emphasizes the guarantees of the Bill of Rights and the 14th Amendment.


PSY 302. Psychology for Substance Abuse Counselors (3). Covers states of intoxication, withdrawal, and side effects associated with alcohol and substance abuse. Includes cross addictions and effects of combining psychoactive drugs with prescribed and over-the-counter medications. Does not satisfy WSU's social science requirement, nor does it count toward a psychology major.
issues surrounding defense mechanisms, and crisis interven-
tion. Prerequisite: PSY 111.

>PSY 316. Industrial Psychology (3). General education further
study course. Introduces the many roles of scientific psychol-
ogy in the selection, training, evaluation, and general welfare
of people in the workplace. Includes employee morale, job
satisfaction, leader behavior, fair employment practices, and
sources of worker stress. Prerequisite: PSY 111.

>PSY 322. Cognitive Psychology (3). General education further
study course. Presents a coherent picture of human
memory and cognition within the framework of the informa-
tion-processing approach and as a function of neural activity.
This approach views the individual as an active, constructive
planner in remembering and organizing new and prior
learned knowledge. The study of attention, memory, thought,
decision making, and problem solving processes are included.
Prerequisite: PSY 111.

>PSY 324. Psychology of Personality (3). General education further
study course. An examination of psychoanalytic, behav-
ioral, trait, and other contemporary theories of human
personality. Considers contribution to major factors influencing
personality: results of research on the area, ways of assessing
personality and some of the methods of treating personality
disorders. Presents and discusses case studies. Prerequisite: PSY
111.

>PSY 326. Introduction to Group Counseling (3). Surveys
contemporary theories and techniques of group counseling.
Includes a comparison of varying group leader roles and
styles and discussion of different types of counseling groups
and their functions. Emphasizes therapeutic factors and
processes in group counseling. Prerequisite: PSY 111.

>PSY 332. Psychology of Perception (3). General education further
study course. An exploration of current research and theo-
ry in perception and sensation. Emphasizes how organisms
take to perceive and understand their environments with
regard to perception of space, form, objects and events. Pre-
requisite: PSY 111.

>PSY 334. Developmental Psychology (3). General education further
study course. Descriptive survey of human development
from conception to death emphasizing the interplay of
environmental, genetic, and cultural determinants of develop-
ment. Selected topics emphasized and elaborated by
experiments and demonstration. Prerequisite: PSY 111.

>PSY 336. Alcohol Use and Abuse (3). General education fur-
ther study course. Study of the individual, social and cultural
aspects of alcohol use. Investigates both non-problem and
problem drinking, treatment of alcoholism, prevention of
alcoholism and alcohol-related problems, and the needs of
special populations. Also includes investigation of the use
and abuse of drugs other than alcohol. Prerequisite: PSY 111.

>PSY 342. Psychology of Motivation (3). General education fur-
ther study course. Examines the psychological and biological
forces leading to goal-directed acts to understand the com-
plexity of influences upon behavior. Motivational topics
include reward and punishment, stress, aggression, achieve-
ment, and the role of the brain structures in influencing
organized behavior. Prerequisite: PSY 111.

PSY 386. Human Factors Psychology (3). The study of how
people respond to the demands of complex machines and the
varied environments of workplace, home, and other settings.
Course introduces the tools and methods of machine, task,
and environment design to achieve the matching of human
capabilities and the demands of machines and environments
so as to enhance human performance and well being. Pre-
requisite: PSY 111.

>PSY 401. Psychological Statistics (3). Introduces basic quanti-
titative techniques for the description and measurement of
behavior, as well as tests for making decisions regarding the
compatibility of data to scientific hypotheses. Covers proba-
bility models, t, chi square and F. Prerequisites: PSY 111 Q and
MATH 111 or 122.

>PSY 402. Psychology of Consciousness (3). General education further
study course. Examines consciousness from two perspec-
tives: as a psychological state ranging from comas to
"peak experiences" and as a framework for knowledge.
Covers research on split-brains and dissociated personalities
from the second perspective. Prerequisite: PSY 111.

>PSY 404. Psychology of Aging (3). General education further
study course. Cross-listed as GERON 404. An examination of
the issues surrounding the adult aging process. Includes per-
sonality and intellectual change, mental health of the elderly,
and the psychological issues of extending human life. Special
emphasis on the strengths of the elderly and prevention
of psychological problems of the elderly. Prerequisite: PSY 111.

>PSY 406. Introduction to Community Psychology (3). General
education further study course. A review of the historical,
societal, theoretical and empirical bases of community psy-
chology which focuses on interdisciplinary approaches to
improving lives in community settings. Presents contempo-
rary models of community psychology, including the eco-
logical and social action perspectives. Includes social support,
self-help, social policy, prevention, community development
and, program development and evaluation. Prerequisite: PSY
111.

>PSY 411. Research Methods in Psychology (1). 3R 3L. Covers
the philosophy of research methods, experimental
designs, appropriate data analysis techniques, and historical
trends and developments in experimental psychology. The
laboratory exposes students to representative experimental
lab techniques in the major subdivisions of psychology.
Actively involves all students in research project(s). Prereq-
usite: PSY 401.

>PSY 414. Child Psychology (3). General education further
study course. Covers psychological development from concep-
tion through infancy and childhood. Includes the develop-
ment of language, perceptual and cognitive functioning,
social-emotional attachment, and socialization. Attention to
practical issues of discipline and child rearing. Prerequisite:
PSY 111.

>PSY 416. Psychology and Problems of Society (3). General
education issues and perspectives course. A study of the special
role of psychological theory, research and principles applied
to contemporary social issues and problems such as environ-
mental concerns, problems in the schools, substance abuse,
nuclear proliferation, racism/ethnic, mental illness, child
abuse, juvenile delinquency, aggression, behavioral control,
aging, technology, etc. Prerequisite: PSY 111.

>PSY 426. Psychology of Work (3). Selects from standard top-
ics of industrial psychology; examines in greater depth the
seriousness of job satisfaction problems, effects of technologi-
ical change, membership in unions, control of productive
workers, facts and myths about the working woman, and
similar topics. Prerequisite: PSY 111.

>PSY 435. Field Work in Psychology (3). Special projects and
practices under supervision in public and/or private
agency settings. Psychological study, observation, service,
and/or research may be undertaken with prior approval by
the department. Repeatable for a maximum of 6 credit hours,
but only 3 hours may be earned per semester. Offered Cr/Nr
only. Prerequisites: PSY 111 and departmental consent.

>PSY 482. Developmental Education (1-3). Provides practical
experience, under academic supervision, that complements
the student's academic program. Consultation with and
approval by an appropriate faculty sponsor are necessary.
Offered Cr/Nr only.

Courses for Graduate/Undergraduate Credit

>PSY 502. Comparative Psychology (3). Develops a unified
theoretical perspective about the origins of behavior of all ani-
mal. Focuses on the evolution and development of behavior.
Field trips supplement lectures. Prerequisite: one course from
Group 1.

>PSY 508. Psychology Tutorial (3). Selected topics in psychol-
ogy. Repeatable for a maximum of 6 hours credit. Instructor's
consent may be required. Schedule of Courses. Prereq-
usite: PSY 111.

>PSY 514. Psychology of Health and Illness (3). A survey of the
relationships between psychology/behavior and physical
health and illness. Includes stress and coping, health habits,
symptom perception, health care provider-client relation-
ships, hospitalization, and prevention. May include a self-
study of life style and behavior in relation to health and ill-
ness. Prerequisite: PSY 111.

>PSY 516. Drugs and Human Behavior (3). General education
study course. A survey of the actions and effects of use
of legal and illegal psychoactive drugs and of the use of pre-
scription drugs in the treatment of psychological disorders.
Details social-cultural, personal, and situational determinants
and consequences of drug use and abuse. Prerequisite: PSY
111.

>PSY 522. Biological Psychology (3). General education further
study course. A review of the biological foundations of behav-
ioral sciences and their impact on the design and testing of
psychological theories.
io. Includes the evolutionary basis of behavior, behavior genetics, a critical analysis of brain-behavior relationships, the role of hormones in behavior, and neurochemical correlates of behavior. Prerequisite: PSY 111.

PSY 524. Advanced Psychology of Personality (3). More intensive treatment of the topics of psychology of personality emphasizing contemporary theories, research, and application of the psychological study of personality. Prerequisite: PSY 324.

PSY 526. Psychological Testing and Measurement (3). A critical analysis of the psychological foundations of tests and the interpretation of test findings. Surveys several tests representing the areas of intelligence, personality, normal and abnormal psychology, interests, special abilities, and aptitudes to illustrate general principles of testing. Prerequisite: PSY 401.

PSY 532. Psycholinguistics (3). Cross-listed as LING 543. Survey of psychological, linguistic, and informational analyses of language. Includes the performance-competence distinction, child development of speech, animal communication systems, and the relation of language to thought. Prerequisite: PSY 111.

PSY 534. Psychology of Women (3). General education issues and perspectives course. Cross-listed as WCM S 534. Psychological assumptions, research, and theories of the roles, behavior, and potential of women in contemporary society. Prerequisite: PSY 111.

PSY 536. Behavior Modification (3). A study of the basic assumptions, principles, and issues of behavioral approach to helping persons with psychological problems. Includes demonstration and individualized practice in general helping skills as well as individual projects in applying these skills. Prerequisites: PSY 111 and instructor's consent.


PSY 546. Aerospace Psychology (3). Exploration of the many roles of scientific psychology in aviation and aerospace science. Surveys the research and literature in areas such as psychophysiological aspects of flight, environmental factors on human performance in aviation, aircrew skill requirements and training, pilot workload, cockpit control and display systems, and aviation safety. Prerequisite: 15 hours of psychology or instructor's consent.

PSY 556. Introduction to Clinical Psychology (3). A survey of current ethical, conceptual, and research issues involved in the assessment and treatment of psychopathology. Reviews contemporary psychotherapies emphasizing the relative efficacy of each and the therapeutic mechanisms through which they initiate behavioral change. Prerequisite: PSY 324.

PSY 566. Perspectives on Self-Help Groups (3). Cross-listed as NURS 566 and SCWK 566. Provides an interactive format that constitutes a community resource for health and human service professionals and promotes an interdisciplinary understanding of the nature and diversity of self-help groups for persons with virtually any health problem or personal issue. Reviews contemporary theory and research, explaining the attractiveness and effectiveness of self-help groups. Panels of support group members share their experience with self-help groups on tasks such as addiction, cancer, and other illnesses, eating disorders, bereavement, mental illness, and parenting.

PSY 568. Computer Applications to the Behavioral Sciences (3, 2R, 2L). Introduces computer applications to the behavioral sciences, including 1) techniques of analyzing experimental data, 2) statistical applications, 3) interactive computing, 4) "correct" statistical programs, word processing, and 6) other current computer applications. Prerequisites: 9 hours in the social sciences.

PSY 601. Systems and Theories in Psychology (3). Includes behaviorism, Gestalt psychology, and structuralism. Attempts to develop the logical relations of these theories to each other as well as to common historical themes and current issues. Prerequisite: 15 hours of psychology including PSY 411 or instructor's consent.

PSY 608. Special Investigation (1-3). Upon consultation with instructor, advanced students with adequate preparation may undertake original research or directed readings in psychological problems. Repeatable for a maximum of 6 credit hours. Requires consultation with approval by appropriate advisor prior to registration. Prerequisites: 9 hours in psychology and instructor's consent.

PSY 756, Psychology Workshop (1-3). Specialized instruction, using various formats in selected topics and areas of psychology. Graded S/U.

Please see the Graduate Catalog for courses numbered 800 and above.

Public Administration

See Urban and Public Affairs, Hugo Wall School of.

Religion (REL)

The study of religion offers students an opportunity to inform themselves about the major religious traditions of the world and to think critically and constructively about religion as a dimension of human experience and a mode of human expression. The curriculum includes courses on major religious traditions, significant issues in religion, and methods of studying religion.

There is no major in religion but an emphasis in religion is available through the general studies program and a minor in religion is also possible.

Students contemplating an emphasis or minor in religion should discuss their academic program with a member of the department. A Bachelor of Arts degree field major provides an additional option.

Minor. A minor in religion requires a minimum of 15 hours. A maximum of 6 may be taken at the 200 level.

Lower-Division Courses


REL 150. Workshop in Religion (4).

Upper-Division Courses

REL 311. Old Testament Topics (3). An in-depth study of a major facet of the religion of the Hebrew Bible, such as prophecy, law, covenant, historiography, and wisdom, or a genre of biblical literature, such as poetry or narrative.


REL 327. Magic, Witchcraft, and Religion (3). Cross-listed as ANTH 327. An examination of various concepts concerning the realm of the supernatural as held by various peoples around the world. Relations between religious beliefs and the resultant practices to the larger patterns of cultural beliefs and behaviors.

REL 339. Religion in America (3). Cross-listed as HIST 339. Surveys various religious traditions in American history from colonial times to the present. Discusses how religions groups, beliefs, and issues have changed over time and how they interact with each other. Includes the different branches of Christianity and Judaism; the study of awakenings and revival; the stories of prominent religious thinkers and leaders; immigrant religious traditions; the tensions between liberal and traditional religious forms; the prophetic and apocalyptic traditions in America; and the impact of Native American, Asian, and African beliefs and practices on the religious landscape.

REL 380. Special Studies (3). A concentrated interdisciplinary study of a particular component of religious studies. Repeatable for credit.

REL 480. Special Studies (3). A concentrated study of a religious issue or text announced by the instructor when course is scheduled. Repeatable for credit. Prerequisite: instructor's consent.

REL 490. Independent Work (1-3). Designed for the student capable of doing advanced independent work in a specialized area of the study of religion that is not formally offered by the department. Repeatable for credit. Prerequisite: departmental consent.
Courses for Graduate/Undergraduate Credit

REL 790. Independent Study (1-3). For the student who is capable of doing graduate work in a specialized area of the study of religion not formally offered by the department. Repeatable for credit. Prerequisite: departmental consent.

Russian

See Modern and Classical Languages and Literatures.

Social Work (SC WK)

The undergraduate social work program, housed in WSU's School of Social Work, offers courses leading to a Bachelor of Social Work (BSW) degree. The primary objective of the BSW program is to prepare students for beginning-level professional social work practice. The undergraduate social work program is accredited by the Council on Social Work Education (CSWE). Students graduating from an accredited BSW program are eligible for professional social work licensure in Kansas. Progression in the social work program has two key stages: initial admission into the program and application and acceptance into the practicum. Requirements include a 2.00 overall GPA, completion of pre-major and prerequisite courses, and satisfactory completion of a non-credit orientation session. Students who receive a grade less than C in a required course must repeat that course and earn a C or above. Provisional admissions may be granted before final grades are received but enrollment in required upper-division social work courses is dependent upon meeting these admission standards. The second stage is application for admission into supervised field practicum. Information and application materials for admission into the major and to the field practicum are available from the social work office.

There will be no credit toward the Social Work Degree for prior life or work experiences.

Lower-Division Courses

SC WK 201. Introduction to Social Work and Social Welfare (3). Introduction to the profession of social work. Includes history of social work and social welfare; introduction to the helping process; examination of social problems, policies, and services; and current trends in social services and programs. Community service activities are required. Prerequisites: SOC 111 and PSY 111.

Upper-Division Courses

SC WK 300. Perspectives on Social Welfare (3). Surveys a broad spectrum of social welfare programs, policies, and controversies with an emphasis on public and private systems which address individual, family, and group needs. Explores historical developments and policy trends which have an impact on service provisions and needs of diverse populations. Examines the relationship of area services to larger social welfare institutions and provides an introduction to social work professional roles, organizations, values, and goals.

SC WK 340. Human Sexuality (3). Cross-listed as WOM S 340. Provides a forum for information and discussion on topics relating to physical, psycho-social, and cultural components of human sexuality. Includes female and male sexual attributes and roles, sexual problems, alternate lifestyles, birth control, values, and sexuality and cultural components of sexuality.

SC WK 481. Cooperative Education in Social Work (1-4). A practical experience with public and private sector agencies which address a broad range of individual needs and community problems. Topical journals focus upon individual knowledge and skill development through field experiences while engaged in the major social work curriculum. Repeatable as elective credit not to exceed 12 hours. Graded C/NC.

Courses for Graduate/Undergraduate Credit

SC WK 500. Social Welfare Development and Policy Analysis (3). Provides development of analytical frameworks for understanding the processes of policy formation, factors shaping policy decisions, the content of program designs, and the performances of social welfare policy and service programs. Examines voluntary and proprietary systems in the development of knowledge and skills for the engagement of complex community resources, the promotion of service innovations, and the shaping of decisions in the arenas of public policy. Emphasizes diverse populations in metropolitan environments. Prerequisites: POL S 121 or HIST 132, SC WK 300.

SC WK 502. Social Work Interviewing: Strategies and Techniques (4). Introduces the study and practice of interpersonal professional interaction skills within the framework of a social work helping process. Focuses on developing skills in professional observation, communication, interviewing, recording, and reporting. Course is didactic as well as interactive and includes an integrated laboratory component focusing experiential learning. Required for social work majors.

SC WK 512. Social Work Research I (3). (1) This course provides an introduction to methods of social work research. Examines both qualitative and quantitative methodologies. Students apply these methods to social work practice. (2) Both qualitative and quantitative methodologies are examined and (3) the foundation for advanced social work research.

SC WK 541. Women, Children, and Poverty (3). General education issues and perspectives course. Cross-listed as WOM S 541. Addresses the problem of poverty among women in the U.S. today, and examines existing and proposed public policies designed to alleviate the problem. Explores theoretical models of poverty policy analysis and the role of values in their formulation and implementation. Discusses issues of age, race and family; special attention is given to poverty among Kansas families. Prerequisite: 6 hours of social science.

SC WK 551. Independent Studies (1-3). Individual projects for social work students who are capable of doing independent work in areas of special interest. Repeatable for credit not to exceed 6 hours. Prerequisite: instructor's consent.

SC WK 560. Person in Society I (3). Provides a beginning theoretical framework within which the integration of prior knowledge can be made regarding physical, mental, and social development of the human being, perspectives on American culture and subcultural variations and their effect on human adaptability in the social environment, and the relationship of those entities to beginning professional social work practice. Prerequisite: school approved human diversity course (3 cr).

SC WK 561. Person in Society II (3). Explores theories and perspectives which explain human behavior in groups, organizations, and communities. Includes application of systems theory to macro and micro systems; social interaction theories, group and family dynamics, majority/minority relations, organizational dynamics, community structures, and the effects of discriminatory structures and practices on minority groups and communities in our society. Prerequisite: SC WK 560.

SC WK 566. Perspectives on Self-Help Groups (3). Cross-listed as NURS 566 and PSY 566. Provides an interactive format that constitutes a community resource for health and human service professionals and promotes an interdisciplinary understanding of the nature and diversity of self-help groups for persons with virtually any health problem or personal issue. Reviews contemporary theory and research, explaining the attractiveness and effectiveness of self-help groups. Panels of support group members share their experience with self-help groups on such topics as addiction, cancer and other illnesses, eating disorders, bereavement, mental illness, and parenting.


SC WK 602. Practicum I (4). Placement in community social welfare agencies for supervised periods of observation and direct service assignments emphasizing performance of basic practice skills and understanding of the social welfare agency and its role in the community service network. To be taken concurrently with SC WK 601 except by program consent. Prerequisites: SC WK 502 and program consent.

SC WK 613. Generalist Practice II (3). Focuses on developing generalist social work practice knowledge and skills at the group, organizational, and community levels. Presents
macro practice roles and skills and links to group and individual practice skills for beginning-level social work interventions with systems of all sizes. Must be taken concurrently with SC WK 605. Prerequisite: SC WK 601.

SC WK 604. Advanced Social Work Research (3). A critical look at practice, services, and professional issues, using social work research. Analyzes current social work practice as well as future directions. Prerequisite: SC WK 512 and an approved research methods course.

SC WK 605. Practicum II (3). Placement in community social welfare agencies for supervised direct service assignments emphasizing formulation of appropriate goals. Includes the selection of various social work roles and in-depth development of techniques and skills common to practice in the social welfare field. Prerequisite: SC WK 602.

SC WK 610. Topics in Social Work (1-3). Selected topics in practice, policy, research, and human behavior in the social environment within a selected field of social welfare. Covers specific topics identified by the program in consultation with majors, groups of community practitioners, and area service institutions. Repeatable. Prerequisite: Instructor's consent.

SC WK 700. Foundations of Generalist Practice I (3). Provides foundation content in the knowledge and skills for empowerment-based generalist social work practice with individuals, families, groups, organizations, and communities. Includes professional role development, communication and interviewing theory, skill development in social work assessment, intervention, and evaluation methods. Co-requisite: SC WK 720.

SC WK 702. Foundations of Generalist Practice II (3). Provides continued social work practice foundation content emphasizing developing generalist knowledge and skill at the group, organizational, community, and societal levels. Emphasizes material on group process and organizational and community leadership in the development of a problem-solving model for work with systems of all sizes. Prerequisite: SC WK 700 or instructor's consent.

SC WK 710. Micro Human Behavior and the Social Environment (3). Provides theories and knowledge of human bio-socio-social development and functioning of individuals and families, and of the interaction between individuals and families and their environment. Presents theoretical perspectives on development over the life span and family functioning. Explores areas of universality and differences across gender, race, ethnicity, class, physical and mental ability, and sexual orientation.

SC WK 712. Macro Human Behavior and the Social Environment (3). Provides theories and content on organizational and community structure, dynamics and change, social movements, large groups, and structural oppression, and provides a theory base for the contextualization of social work practice within diverse environments and macro systems. Emphasizes understanding the needs of minority communities and on understanding change and empowerment strategies which further social justice in communities and organizations. Prerequisite: SC WK 710 or instructor's consent.

SC WK 716. Social Welfare Development (3). Critical examination of the history of American social welfare institutions, policies, and the social work profession as a context for understanding contemporary social policy issues. Provides the knowledge and skills needed to effectively enact policy in practice with clients, and develop social policy both within their agencies and in the larger political arena. Students develop an appreciation for the profession's ethical commitment to promote social justice and the general welfare of society and to improve social institutions to meet basic human needs. Prerequisite: Program approval.

SC WK 717. Social Welfare Policy and Analysis (3). Surveys social welfare institutions, emphasizing the strengths and weaknesses of programs within the context of the social problems they address. The comparison of these structures and provisions enables the development and use of frameworks for analyzing social policies and evaluating programs in light of the mission of the social work profession; the principles of social and economic justice; and the historical, political, and social factors which impinge on policy. Content on the effects of policy and social work practice includes the uses of professional roles in shaping the processes of policy formulation in agency and governmental arenas. Prerequisite: SC WK 716.

SC WK 720. Field Practicum I (3). Placement in community social welfare agencies for supervised periods of observation and direct service assignments emphasizing development of basic practice knowledge and skills. Includes developing understanding of the social welfare agency and its role in the community service network. Co-requisite: SC WK 700.

SC WK 721. Field Practicum II (3). Requires placement in community social welfare agencies for supervised periods of observation and direct service assignments emphasizing development of basic practice knowledge and skills. Promotes an understanding of the social welfare agency and its role in the community service network. Co-requisite: SC WK 700.

SC WK 730. Graduate Topics in Social Work (1-3). Specialized instruction using a variable format in a social welfare relevant subject. Course may be offered together with SC WK 150. Prerequisite: Instructor's consent.

SC WK 731. Social Work and the Law (3). Students will develop and integrate, advanced generalist framework for interdisciplinary, advanced generalist practice within a legal setting. Students will develop a basic knowledge of the law, the roles social workers play within the legal system and the issue of crime and social justice with respect to race and ethnicity. Students will develop an understanding of the law shapes and regulates social work practice and the actions of social workers and their clients alike. As legal and social problems are often interdependent, students will develop skill in communicating with attorneys to enhance their effectiveness in resolving clients' problems.

SC WK 750. Social Work Workshops (1-5). Selected topics in practice, policy, research, and human behavior in the social environment within a selected field of social welfare. Covers specific topics identified by the program in consultation with majors, groups of community practitioners, and area service institutions. Repeatable for up to a total of 6 hours of credit.

SC WK 751. Fundamentals of Social Work Research (3). Provides an introduction to the components of quantitative research design and how research is designed to conduct studies which seek to improve social work practice. Introduces the basic concepts of the social work research process as well as the methods that are employed. Students develop a framework for critically evaluating methods employed in current social work research and the potential benefits of applying these research findings to social work practice. Prerequisite: Program approval.

SC WK 760. Advanced Standing Seminar (3). Builds upon the advanced standing student's knowledge, experience, and skills by integrating social work theory, values, ethics, methodology, and literature. Based in the generalist perspective, prepares students for the advanced generalist practice coursework in the MSW program.

SC WK 779. Directed Study (1-3). Individual study with a focus developed in collaboration with a departmental faculty member. Allows students to pursue and area of special interest. Repeatable for up to 6 credit hours. Prerequisite: Departmental consent.

Please see the Graduate Catalog for courses numbered 800 and above.

Sociology (SOC)
Sociology—the scientific study of society and human interaction—is an opportunity to learn a great deal about yourself and the society around you. A major in sociology provides students with an understanding of human behavior in personal relations such as the family and friendships and how human behavior is affected by larger societal influences such as the economy, bureaucracies, and social problems. This understanding is useful in such fields as human services, business, and law.

Major. The study of sociology mandates specific skills for interpreting information and observations. Therefore, students majoring in sociology are required to enroll in the following courses:

**Course** | **Hours**
--- | ---
SOC 111, Introduction to Sociology | 3
SOC 312, Introduction to Social Research | 3
SOC 501, Sociological Statistics | 3
SOC 512, Measurement and Analysis | 4
SOC 545, Sociological Theory | 3
In addition to the five courses listed above, majors also must enroll in 15 hours of electives to complete the 30-hour major. With this flexibility, students can select specific areas of concentration such as deviant behavior, family, gender, gerontology, social organization, intimate relations, and urban sociology—or some combination of these specialties. Depending on your interests and goals, certain courses in related departments that meet your particular needs and are approved by your advisors may be counted toward a sociology major. No more than 6 hours of such courses may be included.

Minor. A minor in sociology consists of at least 15 hours, including SOC 111, Introduction to Sociology (3 hours) and at least 6 hours of courses, 500-.

Lower-Division Courses

> SOC 111. Introduction to Sociology (3). General education introductory course. Introduces basic concepts, propositions, and theoretical approaches of sociology, including elementary methods of studying social phenomena. The basic course for students who intend to take additional courses in sociology.

Upper-Division Courses

> SOC 301. Computers and Society (3). General education further study course. Examines the interactions between humans and microcomputers and studies the effect of microcomputers upon social interaction and stratification within society. Focuses upon the work setting and the family. Includes new social roles (programmer, hacker, the cyberphobic, the cyberphile); the computer as a family member; the computer as a power vendor in the work setting; computer deviation; and the computer and the disadvantaged. Utilizes a cross-cultural and historical perspective where appropriate.

> SOC 312. Introduction to Social Research (3). Generally offered fall semester only. A survey of the many research techniques found in sociology and related fields. Stresses conceptual understanding of all phases of the research process. Prerequisite: SOC 111.

> SOC 313. Marriage and Families (3). General education further study course. Emphasizes dating and marriage processes as they exist in the United States today. Examines the different family forms that exist in the U.S. and around the world and considers historical change. Aids students in the acquisition of a sociological perspective of the marriage process through an examination of social class, ethnicity, sex roles, dating cohabitation, and human sexuality. Emphasizes marital interaction, parenthood, family violence, marital dissolution, and the future of marriage.

> SOC 316. The American Male (3). General education issues and perspectives course. Cross-listed as WOM 5 316. Examines the male role in America from a variety of sociological perspectives and within particular settings, for example, work, family, and leisure. Other relevant topics: socialization, intimacy, and adult developmental stages and crises.

Discusses changing male roles produced by strains and conflicts in contemporary America.


SOC 319. Contemporary Social Problems (3). General education further study course. Examines the theoretical frameworks and research methods used to examine contemporary social problems and applies these frameworks and methods to issues of concern within contemporary society. Includes deviance, social inequality, and discrimination. Prerequisite: SOC 111.

SOC 321. Deviant Behavior (3). General education further study course. The structure, dynamics, and etiology of these behavior systems that are integrated around systematic violations of the control norms. Presents and evaluates competing theories within the context of the assumption that humans are a social product. Prerequisite: SOC 111.

SOC 325. Parenting (3). General education further study course. Examines the role of parenting in American society from a number of different perspectives. Focuses on the major developmental changes facing couples as they move through the family life cycle. Covers the decision to have children, remaining childfree, the transition into parenthood, parent-infant relationships, parents and school-age children, and the transition from active parenthood. Also includes single parents, divorce, step-parenting, and dual-career parents. Discusses several different parenting techniques and styles as well.

SOC 330. Social Inequality (3). General education further study course. Analysis of status, class, and caste in various societies, especially in American society. Also includes the relationship of social inequality to various social institutions. Prerequisite: SOC 111.

SOC 336. Work in Modern Society (3). General education issues and perspectives course. Broad overview of work in the modern economy. Examines the historical development of industrial-capitalism, both the organizational-level changes and relations between management and labor. Also examines from a sociological perspective industrial and occupational level data focusing on changes in work environments, occupational and industrial opportunities, demographics of work occupants, and changes in compensation and work status.

SOC 338. Health and Social Life (3). General education further study course. Views health as a social characteristic which is defined and influenced by social processes. Studies the social resources for health which exist in social norms, relationships, and networks. Identifies variations in personal health practices according to characteristics such as social class and marital status. Considers changing social standards for health and the stigma given to poor health. Examines socially created risks to health and organized efforts to change unhealthy environments. Investigates the demedicalization of society. Prerequisite: SOC 111 or departmental consent.

SOC 350. Social Interaction (3). General education further study course. Studies the effect groups have on individuals. Primary focus on the symbolic interactionist perspective in sociology. The goal is for students to understand how social interaction influences their daily activities. Includes the meaning and importance of the symbol; the nature and development of self; social roles and their influence on individuals; and the social construction of society. Prerequisite: SOC 111.

SOC 388. Travel Seminar (1-4). An interdisciplinary travel seminar that allows a student to gain credit for the study of one of the following: culture, art, literature, architecture, politics, society, science, and economics while visiting historic places of interest. Prerequisite: departmental consent.

SOC 481. Cooperative Education in Sociology (1-4). Provides the student with practical experience under academic supervision, that complements the student's academic program. Consultation with and approval by an appropriate faculty sponsor are necessary. Gr/NC only. Prerequisite: instructor's consent.

Courses for Graduate/Undergraduate Credit

SOC 501. Sociological Statistics (3). Generally offered fall semester only. Application of descriptive and inferential statistics to sociological problems. Includes measures of central tendency, dispersion and association, simple linear regression, hypothesis testing, and analysis of variance. Prerequisites: SOC 111, SOC 312, MATH 111 or 311 or equivalent.

SOC 502. Measurement and Analysis (4). Generally offered spring semester only. An applied study of the conceptual tools and methodological skills needed to conduct quantitative sociological research. Prerequisites: SOC 111, 312, 301.

SOC 513. Sociology of Aging (3). General education further study course. Cross-listed as GER 513. Analyzes the social dimensions of old age, including changing demographic structure and role changes and their impact on society. Prerequisite: SOC 111.

SOC 515. Sociology of the Family (3). General education further study course. Analyzes American family behavior, including the selection of marriage partners, the husband-wife and parent-child relationships, and the relation of these patterns of behavior to other aspects of American society. Prerequisite: SOC 111.

SOC 516. Sociology of Gender Roles (3). General education further study course. Cross-listed as WOM 5 316. Analyzes the institutional sources of male and female roles, the source of changes in these roles, the consequent ambiguities and conflicts. Prerequisite: SOC 111.
SOC 517. Intimate Relations (3). Examines the social dimensions of intimacy including an analysis of intimacy in different types of relationships, i.e., romantic, friendship, marriage. Reviews theory and research in the area with a special focus on the place of intimacy in social interaction. Prerequisite: SOC 111.

SOC 520. Family and Aging (3). Cross-listed as GERON 520. Analyzes the families and family systems of older people. Emphasizes demographic and historical changes, care giving, and intergenerational exchanges and relationships. Prerequisite: SOC 111 or GERON 100 or junior standing.

SOC 523. Sociology of Law (3). Considers the impact of law on society, the role of law in effecting social change, various methods of dispute resolution, and recent research on judicial, legislative, and administrative processes, all with the aim of comparing and evaluating strengths and weaknesses of legal systems, with partial, but not exclusive, emphasis on those societies utilizing the common law. Prerequisite: SOC 111.

SOC 534. Urban Sociology (3). General education further study course. Studies the process of urbanization and its influence on the development of cultural and social structures throughout the world. Also discusses social problems associated with urbanization. Prerequisite: SOC 111.

SOC 537. The Social Consequences of Disability (3). Cross-listed as GERON 537. An eclectic survey of the social aspects of disability showing the impact of social values, institutions, and policies upon adults with disabilities. Appropriate for both students of sociology and the service professions. Prerequisite: SOC 111.

SOC 538. Medical Sociology (3). Analyzes social and cultural factors related to physical and mental illness. Also includes the dynamics of communication and role relationships among patients and medical personnel and social research and theory relevant to the health professions. Prerequisite: SOC 111.

SOC 539. Juvenile Delinquency (3). General education further study course. The factors related to juvenile delinquency and the measures of treatment and prevention. Prerequisite: SOC 111.

SOC 540. Criminology (3). The extent and nature of criminal behavior and societal reactions to it. Prerequisite: SOC 111.

SOC 541. Contemporary Corrections (3). Historical and contemporary programs for the treatment of offenders viewed as societal reactions to criminal behavior. Prerequisite: SOC 339 or 540.

SOC 545. Sociological Theory (3). Generally offered fall semester only. A comprehensive survey of sociological theory, spanning both classical and contemporary theorists relevant to the development of sociology. Prerequisite: 9 hours of sociology.

SOC 598. Internship (1-6). Supervises persons involved in internships or placements in the community where credit can be given. Prerequisite: departmental consent.

SOC 600. Selected Topics in Sociology (3). Study in a specialized area of sociology emphasizing student research projects. Includes deviant behavior, political sociology, and the family. Repeatable for a maximum of 6 hours credit. Prerequisites: SOC 111, instructor's consent, and substantive area course.

SOC 651. Directed Research (3). Gives the student further research skills in an area of special interest. All students are under the direction of a member of the graduate faculty who guides them in developing research skills. Prerequisites: SOC 512 or equivalent and instructor's consent.

SOC 670. Independent Reading (1-3). For the advanced student capable of doing independent work in an area of special interest. Prerequisites: 15 hours of sociology and instructor's consent.

SOC 781. Cooperative Education in Sociology (1-4). Provides practical experience, under academic supervision, that complements the student's academic program. Consultation with and approval by an appropriate faculty advisor are necessary. Graded Credit/No Credit only.

*Prerequisite may be waived with departmental consent.

Please see the Graduate Catalog for courses numbered 800 and above.

Spanish
See Modern and Classical Languages and Literatures.

Urban and Public Affairs, Hugo Wall School of

The Hugo Wall School of Urban and Public Affairs is committed to enhancing the quality of public life through high-quality graduate instruction, excellence in applied research, and responsive community service. This focus results not only in an excellent graduate education for students, but also allows a special connection with the community's needs through research and service. By integrating teaching, research, and service, the school makes a distinctive contribution to Wichita State University's long-standing commitment to Wichita, the surrounding communities, and the region.

The school serves as the academic home for the Master of Public Administration degree, the Center for Urban Studies, and the Kansas Public Finance Center. Through these units, faculty, staff, and students blend teaching, research, and service in the interdisciplinary field of urban and public affairs. The Hugo Wall School offers special opportunities for students interested in urban and public affairs. Students completing the Master of Public Administration degree gain experience through hands-on research and network with practitioners in the field of public administration.

Financial Assistance

The school has two forms of financial aid available to provide students with financial assistance, as well as an opportunity to be directly involved with research and service projects. Financial aid in the form of graduate assistantships and fellowships is awarded competitively on the recommendation of the faculty in the Hugo Wall School of Urban and Public Affairs.

Graduate assistants aid faculty in the Hugo Wall School in instruction, as well as work directly with faculty and professional staff on research and community service projects through the Center for Urban Studies and the Kansas Public Finance Center. Graduate assistants work 20 hours per week with faculty and staff in the school's teaching, research, and public service activities.

The Hugo Wall School has four endowed fellowships available for financial assistance to qualifying graduate students enrolled in the Master of Public Administration degree. These fellowships—the Hugo Wall, George Pyle, Mike Hill, and George Van Ripper—are awarded on a competitive basis to students with exemplary records and specific career interests in the field of public administration.

Master of Public Administration

The Master of Public Administration (MPA) degree program, with instruction in public management, public finance, and public policy, prepares students for positions of leadership in public and nonprofit organizations. The degree is structured to respond to the unique student body of an urban university. The Master of Public Administration program is accredited by the National Association of Schools of Public Affairs and Administration (NASPAA).

The Master of Public Administration (MPA) degree draws upon the methods and perspectives of the social and behavioral sciences, economics, and the humanities. The link between these disciplines and the challenges of public management are emphasized through the use of practitioners in the classroom, policy-relevant research assignments, public affairs seminars, and internships. Teaching faculty, with significant professional experience in state and local government, are engaged in cutting-edge research relevant to public and nonprofit organizations in Kansas. This experience allows faculty to bring relevant perspectives on public management into the classroom.

Graduates of the MPA degree program now hold positions of responsibility in state and local government and in nonprofit agencies throughout the United States and in other countries. Graduates serve as city managers and department heads, program managers, finance directors, budget analysts, management analysts, and agency planners. Although the majority are employed in public service, some graduates of the program have taken positions in the pri-
Students may select areas that fit their career interests. Common areas include management, public sector management, and nonprofit management, and students have an excellent placement record.

Graduate Certificate in Public Finance
This graduate certificate program offers advanced study in public finance. The program enhances students' career opportunities and provides state and local practitioners in economic development an avenue to improve their skills. The four courses include: PADM 650: Planning Process; RE 619 Urban Land Development; PADM 688 or ECON 688 Urban Economics; and PADM 760 State and Local Economic Development.

Degree Requirements
The Master of Public Administration degree consists of 39 graduate hours, taken over at least three semesters of study.
Core Curriculum. All degree candidates are required to complete the eight core courses:
P ADM 702, Research Methods in Public Administration
P ADM 710, Public Sector Organizational Theory and Behavior
P ADM 725, Public Management of Human Resources
P ADM 745, The Environment of Public Administration
P ADM 765, Public Sector Economics
P ADM 802, Quantitative Methods for Public Sector Professionals
P ADM 865, State and Local Government Finance
P ADM 895, Public Decision Making

Areas of Emphasis. In addition to the core, students develop an area of emphasis approved by an advisor. Students may select areas that fit their career interests. Common areas include state and local government management, financial management, and policy analysis.

Internships
Internships are an important part of the MPA program. Pre-service students are encouraged to take an internship which must last at least nine months. Internship (P ADM 890) carries 3 hours of credit and includes attendance at periodic seminars. Intern positions are remunerative and are awarded on a competitive basis. Although placement cannot be guaranteed, the public administration program has an excellent placement record.

Graduate Certificates
Graduate Certificate in Economic Development
This graduate certificate program offers advanced study in economic development by state and local governments. The program enhances students' career opportunities and provides state and local practitioners in economic development an avenue to improve their skills. The four courses include: PADM 650: Planning Process; RE 619 Urban Land Development; PADM 688 or ECON 688 Urban Economics; and PADM 760 State and Local Economic Development.

Graduate Certificate in Public Finance
This graduate certificate program offers advanced study in public finance. The program enhances students' career opportunities and provides state and local practitioners in economic development an avenue to improve their skills. The four courses include: PADM 650: Planning Process; RE 619 Urban Land Development; PADM 688 or ECON 688 Urban Economics; and PADM 760 State and Local Economic Development.

Graduate Certificate in Public Administration
Successful completion of a certificate requirement is noted on the student's University transcript. A Graduate Certificate is awarded by Wichita State University. Application for the certification programs requires completion of a bachelor's degree, course prerequisites and admission to the Graduate School.

Upper-Division Courses
> P ADM 400. Issues and Perspectives on the City (3). General education issues and perspectives course. An interdisciplinary introduction to issues facing the city. Includes trends in urbanization, market forces and the development of cities, the social context of the city, governing the city, financing local government, urban planning and public infrastructure, urban service delivery, and urban problems such as poverty, unemployment, crime, and pollution.

P ADM 402. Computer and Statistical Applications (3). Cross-listed as CJ 402, ETCH 402, and GERON 402. Introduces computer and statistical applications used in public agencies. Emphasizes availability and use of data sources, quantitative decision-making techniques, and interpretation of statistical analyses. Prerequisite: MATH 111 or equivalent.


Courses for Graduate/Undergraduate Credit

P ADM 501. Integrity in Public Service (3). Cross-listed as CJ 501, GERON 502, and ETCH S 501. Exposes the student to basic principles of personal and professional integrity and how these principles apply to their daily life as a member of the community and as an employee of a government or social service agency. Emphasizes a case study method, using cases and examples from a wide range of government and non-profit agency experiences. Students become aware of

the moral and ethical issues which may arise in their professional and personal lives; begin to develop critical thinking and analytical skills regarding ethical behavior; and become more personally and professionally responsible. Prerequisite: junior- or senior-level or instructor's permission.

P ADM 550. Workshop (3). Specialized instruction using variable format in relevant urban and public affairs subjects. Repeatable for credit up to 6 hours.

P ADM 560. The Planning Process (3). Cross-listed as POL S 560. For students desiring to work in a public planning agency or who will be involved in planning issues as an administrator at the city, county, state, or federal level. Also for students seeking an understanding of the complex process of urban-related life. Examines the role of planning in solving human and environmental problems. Emphasizes the relationship between specialists, citizens, and elected officials as participants in the planning process.

P ADM 564. Comparative Public Administration (3). Cross-listed as POL S 564. Studies the administrative system of selected developed and developing countries emphasizing the various methods and approaches of comparative analysis and the relationships between administrative institutions and their environmental settings.

P ADM 586. Management In The Nonprofit Sector (3). Examines the management and governance of nonprofit organizations. Includes strategic planning, marketing and fund-raising, management of financial and human resources (including volunteers), governing structures, and the role of boards.


P ADM 621. Environmental Law (3). Cross-listed as CJ 621 and ETCH S 622. An in-depth analysis of emerging federal, state, and local legislation; judicial decisions; and administrative policies in environmental protection. Explores the roles of a variety of governmental agencies and nongovernmental organizations as related to prevention and enforcement processes of environmental protection. Includes issues in the development and implementation of environmental policy. Prerequisite: an approved methods class.

P ADM 625. Computer Applications for Public Policy (3). Cross-listed as CJ 625, ETCH S 625, and GERON 625. Familiarizes students with major types of software applications for microcomputers and their use in public policy analysis.
P ADM 651. Dispute Resolution (3). Cross-listed as CJ 651, ETH S 651, and GERON 651. Examines a range of topics including causation, typologies, communications, mediation, arbitration, and other dispute resolution techniques. Includes criminal and victim mediation and the interpersonal and inter-organization relations and dispute resolution techniques. Analyzes case studies.

P ADM 688. Urban Economics (3). Cross-listed as ECON 688. A survey of the economic structure and problems of urban areas on both the microeconomic and macroeconomic levels. Stresses the application of regional economic analysis in the study of urban areas as economic regions. Prerequisites: ECON 201 and 202, or ECON 800, and junior standing.

P ADM 700. Urban Affairs (3). A study of the policy issues faced by local government in an urban setting from a multidisciplinary point of view.

P ADM 702. Research Methods (3). Cross-listed as CJ 702, ETH S 702, GERON 702. Acquaints students with applied public policy research methods. Emphasizes locating, collecting, appraising, and utilizing both primary and secondary sources of data of the type used in policy planning and administrative research. Students must complete several short research projects.

P ADM 710. Public Sector Organizational Theory and Behavior (3). Cross-listed as POLS 710. Reviews the scope of the field of public administration, including a survey of key concepts and schools of thought underlying the field, and examines issues shaping the future development of the field.

P ADM 725. Public Management of Human Resources (3). Cross-listed as POLS 725. Surveys the major areas of management of human resources in the public sector. Includes hiring, training, evaluation, and pay promotion policies. Emphasizes the laws governing public personnel management and on the unique merit, equal employment opportunity, productivity, unionization, and collective bargaining problems found in the public sector.

P ADM 745. The Environment of Public Administration (3). Surveys the political and governmental institutions that underlie the practice of public administration. Includes political systems, constitutional authority, legislative process, intergovernmental relations, and government regulation.

P ADM 750. Public Administration Workshops (1-3). Specialized instruction using variable format in a public administration or urban affairs relevant subject. Repeatable for credit.

P ADM 755. Special Topics in Urban and Public Affairs (3). Provides students with an opportunity to engage in advanced study in topics that are of immediate concern and arise only occasionally. Content varies with issues that arise, student needs, and faculty expertise. Directed to Master of Public Administration students. May be repeated if topics are different. Prerequisite: instructor's consent.

P ADM 760. State and Local Economic Development (3). Explores the roles of state and local governments and officials in economic development through the use of case studies. Examines financing in economic development from the perspectives of public purpose and community objectives.

P ADM 765. Public Sector Economics (3). Cross-listed as ECON 765. An analysis of fiscal institutions and decision making in the public sector of the American economy, budget planning and execution, taxation, debt, and fiscal policy. Prerequisites: ECON 201 and 202, or instructor's consent.

P ADM 775. State and Local Government Law (3). Explores the legal principles which undergird the foundation of governmental operation and administration.

P ADM 785. Public Works Administration (3). Introduces public works administration and management. Includes discussion of public works professionals, public works organizations and institutions, infrastructure planning, policy, and project analysis; procurement, purchasing, and contract administration; geographic information systems; and transportation, water, waste water, and surface water system construction, maintenance, and replacement.

P ADM 798. Independent Study (1-3). For graduate students to pursue research in areas not normally covered in coursework. Repeatable for credit with departmental consent. Prerequisite: departmental consent.

Please see the Graduate Catalog for courses numbered 800 and above.

Women's Studies (WOM S)

The Center for Women's Studies is a resource and research center for scholarship concerning women. The center offers courses and administers a major and a minor in women's studies, a discipline which presents an analysis of gender in society through the use of a variety of approaches, including feminist theory. Students investigate such areas as changing gender role expectations, American and global social and cultural concerns, and the professional and domestic contributions of women to society, especially concerning the role of women in the arts and sciences. Women's studies may also be pursued as a part of a dual major by students whose intellectual or vocational interests are best served by a focus on women's studies in conjunction with another academic discipline.

Major. Within the major in women's studies, students may focus on either humanities or social science-­women's studies courses, supplementing each track with interdisciplinary courses that apply to either focus. The major requires a minimum of 30 hours of coursework with no more than 3 hours in courses numbered 140 to 149. Other 100-level courses and workshops may not be counted for the major, except for 190, which may be counted.

In addition to women's studies courses, appropriate cross-listed courses for the major may be selected from such fields as philosophy, sociology, social work, history, English, anthropology, religion, ethics, studies, psychology, communication, political science, and criminal justice. Students considering the major in women's studies should be advised by a women's studies faculty member regarding their academic programs, their vocational goals, and the selection of a humanities or social science track in the women's studies major.

To pursue the Humanities focus, the following combinations of courses are possible:

- 12 hours of required courses, WOM S 287, 387, 587, and one of the following: WOM S 391, 482, or 586
- 15 hours of Humanities women's studies courses (group 2 below) or combination of Humanities and Interdisciplinary courses (group 1 below)
- 3 hours of Social Science women's studies courses (group 3 below)

To pursue the Social Science focus, the following combinations of courses are possible:

- 12 hours of required courses, WOM S 287, 387, 587, and one of the following: WOM S 391, 482, or 586
- 15 hours of Social Science women's studies courses (group 3 below) or combination of Social Science and Interdisciplinary courses (group 1 below)
- 3 hours of Humanities women's studies courses (group 3 below)

Group 1: Interdisciplinary women's studies courses

WOM S 190, 287, 380K, 387, 391, 481, 482, 570, 587, 635

Group 2: Humanities women's studies courses

WOM S 140, 330, 331, 332, 333, 338, 511, 512, 521, 522, 523, 535, 536, 537

Group 3: Social Science women's studies courses

WOM S 141, 142, 240, 316, 325, 340, 342, 345, 351, 533, 534, 541, 542, 543

Minor. The minor in women's studies consists of a minimum of 15 hours of women's studies courses including WOM S 287 and 387. Restrictions on 100-level courses in the major (see above) also apply to the minor.

Lower-Division Courses

WOM S 140. Journal Writing (1). Workshop acquaints students with the concept and practice of journal writing. Readings deal with specific themes (work, family, relationships), and students are required to keep a daily journal. Course provides an intense journal writing experience for those enrolled and encourages students to continue the practice on their own. Graded S/U.

WOM S 141. Women's Sexuality (1). Presents information on women's sexuality from physiological, psychological,
and socio-cultural perspectives. This integrated view focuses on women's body images and perceptions of self as sexual beings, as well as on socialization and gender-role expectations, choices of sexual behavior, sexual dysfunction, and communications in sexual relationships.

WOM S 142. Domestic Violence (1). Deals with the roots of domestic violence embedded in family roles, legal systems, religious beliefs, and the psychology of women, children, and men. Also covers the consequences and prevention of family abuse. Includes discussion of literature and films.

WOM S 150. Workshops (1-2). Topics vary by semester. Past topics have included assertion training (introductory and advanced) and rape information and prevention.

WOM S 150C. Assertion Training for Women (1). Workshop teaches women to develop assertion skills. Considers some of the changing roles and values of women in our society today and how these create a need for women to be assertive in their personal and professional choices. Examines barriers that exist to assertive behavior and ways to overcome them. Graded S/U.

WOM S 150M. Advanced Assertion Training (1). For students who have taken WOM S 150C. Applies assertion principles and behaviors to specific topics such as employment, male-female relations, sexuality, parent-child relations, and organized group activity. Prerequisite: WOM S 150C.

WOM S 180. Special Topics (1-3). Topics vary by semester.

> WOM S 190. The American Woman in Popular Culture (3). General education introductory course. Examines how women of various races, classes, and ethnicities are represented in a wide variety of popular media. Encourages the critical analysis of why and how these popular representations are politically and socially significant in shaping society's perceptions of "the American woman." Also explores women's popular genres.


> WOM S 287. Women in Society; Social Issues (3). General education introductory course. Examines women's efforts to claim their identity from historical, legal, and social perspectives. Includes recent laws relating to women; contemporary issues (such as rape, day care, working women, the future of marriage); agencies for change; theories of social change; and the relationship of women's rights to human rights.

Upper-Division Courses

WOM S 316. The American Male (3). Cross-listed as SOC 316.

WOM S 325. Women in the Political System (3). Cross-listed as POL S 325. Examines the political process of policy making, using policies of current interest concerning women. Explores the association of societal gender role expectations with existing and proposed public policies that pertain to women's lives. Prerequisite: 6 hours of social science or instructor's consent.

WOM S 330. Women's Personal Narratives (3). Cross-listed as ENGL 336. Explores the literary genre of the journal as practiced by both historical and modern women. Examines works by both well-known diarists and little-known notebook keepers. In-class writing and out-of-class assignments; students are encouraged to do daily work in a journal of their own. Prerequisites: ENGL 101 and 102.

WOM S 332. Goddesses in Myth (3). Traces the development of the characteristics, powers, and ideas about classical Greek and Roman goddesses as well as ancient Northern European goddesses from a pre-historic, world-wide worship of female deities. Examines the female-dominated cultures and religions of the paleolithic and neolithic and then follows the transition from this ancient worship to the classical and Northern European conception of goddesses.

WOM S 333. Women and Religion (3). Cross-listed as REL 333.

WOM S 338. Philosophy of Feminism (3). Cross-listed as PHIL 338.


WOM S 345. Women and Dependencies (3). Provides information about women's dependencies and their relationship to constructions of gender. Examines dependencies on substances and processes (alcohol, street and prescription drugs, eating disorders, and dysfunctional relationships) in their social and personal context. Examines theories of treatment and recovery in relation to feminism theory and women's roles in co-dependency.

> WOM S 361. Women and Work (3). General education further study course. Examines the image and reality of women's employment from minimum wage work to corporate board rooms, as well as women's unpaid work. It explores the impact of cultural values, societal arrangements, and public policy on occupations, wages, and family life.

WOM S 380. Special Topics (1-3). Focuses on intermediate topics of interest to women's studies.

WOM S 380K. Women and Peace (3). Explores many facets of women's strategies for interpersonal and political peace-making. Also explores the pacifist and patriotic strategies, including service, resistance, and direct actions.

> WOM S 387. Women in Society: Cultural Images (3). General education further study course. Explores the roots of ideas about women in our society and women's responses to those ideas as they have attempted to define themselves. Emphasizes cultural images of women in literature, art, myth, philosophy, religion, psychology, education, and politics. Also considers women in other cultures and other times and contemporary women's visions of an alternative future.

> WOM S 391. Women's Global Issues (3). General education further study course. Explores women's issues from a global perspective in relation to policies approved by the International Women's Decade conferences of the United Nations. Emphasizes understanding the impact of nationalism, race, class, and cultural values in creating obstacles to women's full participation in society. Explores strategies for achieving full human rights for women. Prerequisites: one course in women's studies and one course in history or political science.

WOM S 480. Special Topics (1-3). Provides an introduction to the exploration of various women's studies' themes.

WOM S 481. Cooperative Education (1-4). Provides a field placement that integrates theory with a planned and supervised professional experience designed to complement and enhance the student's academic program. Offered CR/NCR only.

> WOM S 482. Latina In Culture and Society (3). Examines what it means to be a Latina and a feminist in U.S. culture, confronting racism and sexism as well as being empowered through Latina identity. The exploration of Latina identity results in creative transformation and a new understanding of the relationship of self to community. Materials drawn from Chicana feminist studies in prose, poetry, criticism, and film, and from presentations by guest speakers.

Courses for Graduate/Undergraduate Credit

> WOM S 511. Women in Early America, 1600-1830 (3). General education further study course. Traces women's contributions and experiences in building the U.S., 1600-1830s. Includes both conventional and newly developed methodologies in women's history research.

> WOM S 512. Women and Reform in America, 1830-Present (3). General education further study course. Examines the history of women in the U.S., 1830-present. Focuses especially on women's involvement in various social reform activities, efforts which eventually led to work toward equal rights and improved conditions for women.

> WOM S 515. Sociology of Gender Roles (3). Cross-listed as SOC 515. Analyzes the institutional sources of male and female roles, the source of changes in these roles, the consequent ambiguities and conflicts. Prerequisite: SOC 111.
WOM 532. Contemporary Women's Art (3). Examines art by women in the contemporary world. Emphasizes the impact of the women's movement on the creative energies and on the career directions and opportunities of these women in the arts.

WOM 533. Feminist Film Criticism (3). Applies critical methods of analysis from the field of feminist film studies (such as psychoanalysis, ideology critique, close textual analysis, narrative, and genre criticism) to the representation of women in film. Emphasizes historical development of feminist film theory and criticism as it relates to classical Hollywood narrative, film genres, and avant-garde film. Prerequisite: 3 hours of upper-level humanities or 3 hours of upper-level women's studies.

WOM 533. Women and the Law (3). Introduces the legal aspects of women's rights, including the equal rights amendment to the U.S. Constitution; right to choose a name; sex discrimination in employment, education, and credit; welfare and criminal justice. Also considers women in the field of law, such as lawyers and legislators.

WOM 534. Psychology of Women (3). Cross-listed as PSY 534.

WOM 535. Literary Images of Women: Diverse Voices (3). Cross-listed as ENGL 535. Explores literature written in English by women of diverse ethnic, racial, class, and other backgrounds as well as of varying sexual orientations, ages, and degrees of physical ability. Analyzes materials as literary works and as expressions of women's differences from one another. Works are selected based on their specific attention to the question of gender as it intersects with other elements of culture. Prerequisites: ENGL 101, 102, and one course in literature.

WOM 536. Writing by Women (3). Cross-listed as ENGL 536. Explores various themes in critical approaches to literature composed by women writers, especially those whose works have been underrepresented in the literary canon. Genres and time periods covered, critical theories explored, and specific authors studied vary in different semesters.

WOM 541. Women, Children, and Poverty (3). General education issues and perspectives course. Cross-listed as SOC Wk. 541. Addresses the problem of poverty among women in the U.S. today, and examines existing and proposed public policies designed to alleviate the problem. Explores theoretical models of poverty policy analysis and the role of values in their formulation and implementation. Discusses issues of age, race and family, special attention is given to poverty among Kansas families. Prerequisite: 6 hours of social science.

WOM 543. Women and Health (3). Cross-listed as NURS 543. Examines the historical development of the women's health movement, focuses on current issues relevant to women and health care, and explores the roles of women in the health care system and as consumers of health care. Examines self-care practices of women and studies ways to promote positive health practices. Open to non-nursing majors.

WOM 570. Directed Readings (1-3). For students who wish to pursue special reading or research projects not covered in coursework. Prerequisite: instructor's consent.

WOM 580. Special Topics (1-3). Focuses on advanced topics of interest to women's studies.

WOM 586. Gender, Race, and Knowledge (3). General education issues and perspectives course. Examines the impact of gender and race on knowledge (understanding of objects, people, events, and activities). Assumes that gender, race, and knowledge are socially constructed categories. Concerned with science as a practice of representation. Focuses on the "white masculinist" ideas or beliefs that motivate and affect the practice of academic disciplines. Considers: What is the relationship between the making of masculinity and femininity and science? How are gender and race woven into science and social science and with what results? Does the entrance of white women and people of color into the sciences and humanities change how they are practiced? Do they produce significantly different understanding about the world? Central premise is that all knowledge emerges from some type of love or passion. What types of passion produce knower, knowing, and the known?

WOM 587. Theories of Feminism (3). Because feminism is not a single ideological stance or perspective, course examines a variety of ideas underlying feminist cultural critiques and visions for social change. Discusses the contribution of women's studies to various academic disciplines. Prerequisites: WOM 287 and 387, or 6 hours of women's studies courses, or instructor's consent.

WOM 635. Leadership Techniques for Women (3). Cross-listed as COMM 635. Provides the female student experience in decision making and improves skills in leadership through role playing and exercise in group dynamics.

Please see the Graduate Catalog for courses numbered 800 and above.

The following abbreviations are used in the course descriptions: R stands for lecture and L for laboratory. For example, 40; 2L means 4 hours of lecture and 2 hours of lab.
University Faculty—2004-2005
(as of Jan. 1, 2004)

Note: Dates (f) following title refers to time of initial (and successive) appointments. Faculty listed have academic rank.

Aagaard, Alan, Assistant Professor, Curriculum and Instruction (1979). BA, California State University, 1969; MA, 1970; EDD, University of Northern Colorado, 1975.

Abdimour-Helm, Sue, Associate Professor and Chairperson, Finance, Real Estate, and Decision Sciences (1998). BS, Birzeit University, 1982; MS, Southampton University, 1988; PhD, Indiana University, 1994.

Ackerman, Paul, Assistant Professor, Psychology (1969). BA, University of Kansas, 1964; MA, 1966; PhD, 1969.

Ahmed, Ikraruddin, Assistant Professor, Mechanical Engineering (2003), BSME, Bangladesh University of Engineering and Technology, 1988; MSME, University of Texas-Austin, 1993; PhD, 1997.

Akrbova, Maria, Assistant Professor, Modern and Classical Languages and Literatures (2003). BA, Sophia University, 1993; MA, 1995; PhD, University of Kansas, 2003.

Alicar, Mara, Assistant Professor, Curriculum and Instruction (1999). BA/MA, University of Belgrade, Yugoslavia, 1975; PhD, 1985.

Alexander, David R., Professor, Physics, and Executive Director, Fairmont Center for Science and Mathematics Education (1971). BS, Kansas State University, 1967; AM, Indiana University, 1968; PhD, 1971.

Alexander, Gwen, Assistant Professor and Associate Dean for Administration, University Libraries (2001). BA, Regis University, 1999; MA, University of Arizona, 1997; PhD, 2001.


Anderson, Peggy J., Associate Professor, Curriculum and Instruction (1993). BS, Emporia State University, 1967; MA, University of Kansas, 1979; PhD, Wichita State University, 1993.

Apell, Kenn, Professor and Chairperson, Communication Disorders and Sciences (2001). BA, San Diego State University, 1981; MA, 1983; PhD, University of Memphis, 1986.

Armstrong, Richard N., Associate Professor and Director of Basic Oral Communication Program, Elliott School of Communication (1987). BA, Southern Utah University, 1972; MA, Brigham Young University, 1974; PhD, Bowling Green State University, 1978.


Babich, Judith, Associate Professor, School of Performing Arts (1984). BA, Edgerton College, 1974; MA, University of Cincinnati, 1979; PhD, University of California, 1981.

Badgett, Barry L., Associate Professor, School of Architecture and Design (1993). BFA, Virginia Commonwealth University-Richmond, 1965; MFA, Syracuse University, 1969.

Bagal, Rafiye, Associate Professor, Computer Science (1990). BS, Bilkent Institute of Technology and Science, 1983; MS, University of Victoria, 1987; PhD, 1991.

Bair, Beth, Professor and Graduate Coordinator, Mechanical Engineering (1988). BS, University of Wisconsin, 1980; MS, 1983; PhD, 1988.


Bakken, Linda, Professor, Administration, Counseling, Educational, and School Psychology (1985). BA, Northern Michigan University, 1966; MS, Utah State University, 1976; EdD, Boston University, 1983.


Bannister, Andrea, Associate Professor, School of Community Affairs, Criminal Justice Program, and Director, Regional Community Policing Training Institute (1995). BS, University of Illinois, Champaign-Urbana, 1989; MA, Indiana University, Bloomington, 1990; PhD, Michigan State University, 1995.


Barut, Mehmet, Assistant Professor, Finance, Real Estate, and Decision Sciences (2000). BS, Istanbul Technical University, 1988; MS, 1991; PhD, Clemson University, 1999.

Bates, Rodney, Assistant Professor and Graduate Coordinator, Computer Science (2000). BS, Kansas State University, 1967; MS, 1968; PhD, 1971.

Baughman, Margaret Dawe, Associate Professor and Chairperson, English (1993). BA, University of Virginia, 1979; MS, Northwestern University, Evanston, 1980; MFA, City University of New York, Brooklyn College, 1989.


Becker, John, Professor, School of Accountancy, and Dean, W. Frank Barton School of Business (2000). BS, Pennsylvania State University, 1977; MBA, Indiana University, 1982; PhD, 1983.


Beechler, John, Professor, School of Music (1968). BM, Peabody Conservatory, 1974; DMA, University of Colorado-Boulder, 1982.

Beggs, Donald L., President and Professor of Education (1959). BSE, Southern Illinois University, 1963; MED, 1964; PhD, University of Iowa, 1966.

Behman, Elizabeth, Associate Professor, Physics (1900). SCB, Brown University, 1979; MS, University of Illinois, 1981; PhD, 1983.

Beldona, Srimat, Assistant Professor, Management, and Assistant Director, Center for International Business (2001). BS, Karmatak University, 1988; MBA, 1988; MS, Temple University, 1992; PhD, 1994.


Berman, Nancy, Associate Professor, Management (1983). BA, Wichita State University, 1969; MBA, 1974; PhD, University of Minnesota, 1983.

Bergen, Wesley, Visiting Assistant Professor, Religion (1997). BA, University of Manitoba, 1993; MDiv, Lutheran Theological Seminary, 1985; STM, St. Andrew's College, 1989; PhD, Emmanuel College, University of Toronto, 1996.


Billings, Dorothy K., Associate Professor, Anthropology (1968). BA, University of Wisconsin, 1955; PhD, University of Sydney, 1972.

Bischoff, William, Professor, Geology, Dean, Liberal Arts and Sciences (1984). BA, DePauw University, 1979; MS, Northwestern University, 1982; PhD, 1983.

Black, Phillip C., Assistant Professor, School of Music (1968). BM, Ball State University, 1977; MM, University of New Mexico, 1980.

Blakeslee, Donald J., Professor, Anthropology (1976). BA, University of Nebraska, 1969; MA, 1971; PhD, University of Wisconsin-Milwaukee, 1975.

Blocher, Larry R., Professor, School of Music (1995). BME, Morehead State University, 1975; MME, 1977; PhD, Florida State University, 1986.


Bolin, Brian L., Assistant Professor and Graduate Coordinator, School of Social Work (1999). BS, Oklahoma State University, 1985; MS, 1988; MSA, Walla Walla College, 1998; PhD, Oklahoma State University, 1998.


Born, John D., Jr., Associate Professor, History (1965). BA, University of Texas, 1952; MA, University of Houston, 1958; PhD, University of New Mexico, 1963.
Director, Graduate China, 1911-2; PhD, University of Oregon, 1985.

Hill, Twyla J., Assistant Professor, Sociology (1985). BA, California State University, 1986; MA, University of California-Irvine, 1993; PhD, 1998.

Hill, David, Assistant Professor, School of Art and Design (1999). BFA, Wichita State University, 1985; MFA, Syracuse University, 1997.


Ho, James C., Distinguished Trustees Professor, Physics, and Senior Fellow, National Institute for Aviation Research (1971). BS, National Taiwan University 1959; MS, University of California-Berkeley, 1965; PhD, 1966.

Ho, Loring, Associate Professor, Mathematics and Statistics (1989). BA, Chinese University of Hong Kong, 1979; MA, Princeton University, 1982; PhD, 1984.


Hoffman, Klaus A., Professor and Doctoral Graduate Coordinator, Aerospace Engineering (1990). BS, University of Texas-Austin, 1972; MS, 1975; PhD, 1983.


Horn, Walter J., Professor and Chairperson, Aerospace Engineering and Interim Dean, College of Engineering (1984). BS, University of Alabama, 1967; MS, University of Texas-Austin, 1969; PhD, 1972. Licensed Professional Engineer-Texas.

Hrycak, Tomasz, Assistant Professor, Mathematics and Statistics (1999). MS, Technical University of Wroclaw, Poland, 1986; PhD, Yale University, 1995.

Hu, Xiaoming, Associate Professor, Mathematics and Statistics (1994). BS, Jiangxi Polytechnic University, China, 1982; PhD, University of Missouri-Columbia, 1993.


Huckstadt, Allison A., Associate Professor and Director, Graduate Program, School of Nursing (1975). BSN, Wichita State University, 1975; MS, 1978; PhD, Kansas State University, 1981; PhD, University of Colorado, 1990.

Hughes, David T., Associate Professor, Anthropology (1988). BS, West Texas State University, 1972; MA, University of Arkansas, 1977; PhD, University of Oklahoma, 1988.

Hull, Raymond H., Professor, Communicative Disorders and Sciences (1953). BA, McPherson College, 1946; MA, University of South Dakota, 1965; PhD, University of Denver, 1972.


Hunter, Ann P., Assistant Professor, Dental Hygiene (1980). BS, Iowa State University, 1954; MS, 1955; PhD, Kansas State University, 1991.

Huntley, Diane E., Associate Professor, Dental Hygiene (1976). BA, University of Bridgeport, 1968; MA, University of New York-Buffalo, 1971; PhD, Kansas State University, 1985.

Hutchinson, John, Professor, Mathematics and Statistics and Associate Vice President, Academic Affairs & Research (1976). BA, St. Benedict's College, 1962; MA, University of Kansas, 1966; PhD, 1968.

Huxman, Susan M., Associate Professor and Interim Director, Elliott School of Communication (1990). BA, Bethel College, 1982; MA, University of Kansas, 1986; Ph.D., 1988.

Jacovella, Ronald G., Associate Professor, School of Community Affairs, Criminal Justice Program (1973). BS, Colorado State University, 1965; MS, 1967; PhD, University of Connecticut, 1972.

Ilitch, Juri, Assistant Professor, Chemistry (2002). MS, Moscow State University, 1986; PhD, Moscow State University, 1990.

Iorio, Sharon H., Associate Professor, Elliott School of Communication, and Associate Dean, Liberal Arts and Sciences (1990). BA, University of Oklahoma, 1965; MS, Oklahoma State University, 1984; PhD, 1991.


Jacobs, Phyllis, Assistant Professor and Director, Undergraduate Program, School of Nursing (1990). BSN, University of Wisconsin, 1965; MSN, Washington University, 1967.


Jarman, Jeffrey, Assistant Professor, Elliott School of Communication, and Director of Debate and Forensics (1996). BS, Southwest Missouri State University, 1993; MA, University of Kansas, 1998; PhD, 1998.

Jarmagn, Bill D., Professor, Allen Gibb, & Houlie Faculty Fellow in Accountancy, and Director, School of Accountancy (1987). BSBA, Arkansas Polytechnic University, 1969; MBA, University of Arkansas, 1970; PhD, 1976. CPA-Oklahoma.

Jayaweera, Sudharman K., Assistant Professor, Electrical and Computer Engineering (2003). BSEE, University of Melbourne, 1997; MSEE, Princeton University, 2001; PhD, 2002.

Jewell, Ward T., Professor and Bombardier-Leerjet Fellow, Electrical and Computer Engineering (1987). BSEE, Oklahoma State University, 1979; MSEE, Michigan State University, 1980; PhD, Oklahoma State University, 1986.


Johns, Buddy A., Jr., Associate Professor, Mathematics and Statistics (1964). BA, Friends University, 1957; MA, University of Kansas, 1960; PhD, 1964.

Johnson, C. Nicholas, Assistant Professor and Director of Dance, School of Performing Arts (1997). BS, University of Utah-Salt Lake City, 1980; MFA, University of Arizona, 1991.


Jones, W. James, Professor, School of Music (1969). BM and BSE, Ohio State University, 1960; MA, 1962; PhD, University of Iowa, 1970.

Jorgensen, Michael J., Assistant Professor, Industrial and Manufacturing Engineering (2001). BS, University of Nebraska, 1986; MS, 1989; PhD, Ohio State University, 2000.


Kahl, Pawan, Professor and Chairperson, Physics (1988). BS, Panjab University, India, 1973; MS, 1974; PhD, 1979.


Kelley, James, Associate Professor and Dean, Operations and Personnel, Division of Student Affairs (1982). BS, Oregon State University, 1966; MA University of Denver, 1966; PhD, 1970.


Kennedy, Deborah, Instructor and Clinical Educator, School of Nursing (1994). BSN, Fort Hays State University, 1984; MSN, Wichita State University, 1994.


Kindrick, Robert L., Professor, English, and Vice President for Academic Affairs and Research (2000). BA, Park College, 1964; MA, University of Missouri-Kansas City, 1967; PhD, University of Texas-Austin, 1971.


King, Mark Allen, Assistant Professor, Music Theatre-Voice, and Director, Opera/Musical Theatre (1987). BFA, Florida Atlantic University, 1972; Artists Diploma, University of Cincinnati College-Conservatory of Music, 1987; MFA, 1998.

Klunder, Willard C., Associate Professor, History

Koehler, Charles S., Assistant Professor, Sociology (1999). BA, University of Wyoming, 1991; MA, 1993; PhD, Binghamton University, 1999.


Koert, David N., Associate Professor, Mechanical Engineering and Associate Dean for Research and Information Technology, College of Engineering (1993). BSME, Villanova University, 1980; MSME, Drexel University, 1984; PhD, 1990.

Kolb, Andrew, Assistant Professor, School of Music (1999). BM, Eastman School of Music, 1993; MM, University of Miami of Florida, 1995; DMA, State University of New York at Stony Brook, 1998.

Kopila, Ronald R., Associate Professor, Administration, Counseling, Educational, and School Psychology, and Vice President for Student Affairs (1999). BS, State University College at New Paltz, New York, 1966; MA, Michigan State University, 1968; PhD, University of Michigan, 1973.

Koppnheuer, John H., Associate Professor, Modern and Classical Languages and Literatures (1966, 1972). BA, Wichita State University, 1964; MA, University of Iowa, 1966; PhD, 1974.

Koumeleva, Svetlana, Assistant Professor, Computer Science (2002). MA, Moscow State University, 1993; MS, Wichita State University, 2000; PhD, Wichita State University, 2000.

Kovar, Susan K., Professor, Kinesiology and Sport Studies, and Dean, Graduate School (1991). BS, State University College at New Paltz, New York, 1966; MA, Michigan State University, 1968; PhD, University of Minnesota, 1970.

Krishnan, Krishna, Associate Professor, Industrial and Manufacturing Engineering (1996). BS, Kerala University, India, 1984; MS, Virginia Polytechnic Institute and State University, 1991; PhD, 1994.


Kuster, Nicolas, Assistant Professor, School of Music (2000). BA and BM, Oberlin Conservatory of Music, 1993.


Lancaster, Kirk E., Professor, Mathematics and Statistics (1988). AB, Humboldt State University, 1975; PhD, Oregon State University, 1981.


Lansing, Jean A., Associate Professor, School of Music (1979). BM, Coe College, 1971; MA, Indiana University, 1975.


Lescoe-Long, Mary A., Associate Professor and Chairperson, Public Health Sciences (1994). BS, Western Michigan University, 1975; MA, University of Michigan, 1980; PhD, University of South Carolina, 1992.


Lewandoski, Cathleen A., Assistant Professor and Director, School of Social Work (1995). BA, Blackburn College, 1975; MSW, St. Louis University, 1981; PhD, University of Kansas, 1997.

Lewis, D. Kathleen, Associate Professor, Physical Therapy (1999). BS, University of Minnesota; BS, Kansas State University; MA, University of Southern California-Los Angeles; JD, Washburn Law School.

Lewis, Rhonda, Associate Professor, Psychology (1996). BA, Wichita State University; MA, University of Kansas, 1993; MPH, 1996; PhD, 1996.

Lezolate, Annette, Assistant Professor, School of Art and Design (2000). BA, University of Illinois-Champaign-Urbana, 1992; MA, Florida State University, 1995.


Lincoln, Diane Thomas, Associate Professor, School of Art & Design (1999). BAE, University of Kansas, 1971; MFA, Wichita State University, 1977.

Loftus, Ariel, Assistant Professor, History (1997). BA, University of Michigan, 1979; MA, 1982; PhD, 1992.

Locke, James E., Associate Professor, Aerospace Engineering (2000). BSEE, Oklahoma State University, 1981; MSCE, 1985; PhD, Old Dominion University, 1988.


Longofer, Stanley D., Associate Professor, Finance, Real Estate, and Decision Sciences, and Stephen L. Clark Chair in Real Estate and Finance (1999). BBA, Wichita State University, 1989; MS, University of Illinois, 1991; PhD, 1995.

Loper, Gerald D., Jr., Assistant Professor, Physics, Associate Vice President for Research, and Director, Office of Research Administration (1964). BA, Wichita State University, 1939; MS, Oklahoma State University, 1962; PhD, 1964.

Lowe, Roger D., Assistant Professor, School of Accountancy, and Vice President, Administration and Finance (1964). BSBA, Pittsburg State University, 1960; CPA-Kansas.


Ma, Chunsheng, Associate Professor, Mathematics and Statistics (1999). BS, Wuhan Teachers College at Xiaogan, China, 1981; MS, Wuhan University, China, 1988; PhD, University of Sydney, Australia, 1997.

Ma, Daowei, Associate Professor, Mathematics and Statistics (1993). MS, Wuhan University, China, 1982; PhD, Washington University-St. Louis, 1990.

Machado, Viswanathan, Associate Professor, Industrial and Manufacturing Engineering (1996). Blech, Indian Institute of Technology, Madras, India, 1991; MS, Purdue University, 1996; PhD, 1996.

Macloum, Karen, Instructor and Clinical Educator, School of Nursing (1994). BSN, Fort Hays State University, 1984; MSN, Wichita State University, 1994.

Mahlazijn, Don E., Professor and Industrial and Manufacturing Engineering (1973). BS, Oklahoma State University, 1968; MS, 1969; PhD, 1975.

Mandt, AJ (Jay), Associate Professor, Philosophy, and Director, Emory Lindquist Honors Program (1976). BA, Trinity College, 1972; MA, Vanderbilt University, 1974; PhD, 1978.

Mann, Bryan, Assistant Professor, School of Nursing (2001). BS, Wichita State University, 1981; MD, University of Kansas, 1985.


Maseman, Denise C., Assistant Professor and Chairperson, Dental Hygiene (1981). BS, University of Nebraska, 1974; MS, University of Missouri-Kansas City, 1978.

Maslyn, John M., Assistant Professor, Management (2002). BA, Hobart College, 1978; MS, Rensselaer Polytechnic Institute, 1988; PhD, Georgia Institute of Technology, 1996.


Matthews, Richard J., Assistant Professor and Head of Research and Research Services Department, University Libraries (2002). BA, University of Wisconsin, 1979; JD, Hofstra University, 1984; MLS, University of Wisconsin, 1993; MA, New School for Social Work, 1997.


Matveyeva, Susan, Assistant Professor and Catalog Librarian, University Libraries (2002). BA,

Miller, Lori K., Professor and Chairperson, Kinesiology and Sport Studies and Associate Dean, College of Education (1996). BS, Emporia State University, 1984; MEd, Texas A&M University, 1986; EdD, East Texas State University, 1989; MBA, University of Louisville, 1993.


Moore-Jansen, Peer, Associate Professor and Chair, Anthropology, and Associate Professor, Criminal Justice (1989). BA, Texas Tech University, 1977; MA, University of Arkansas-Fayetteville, 1982; PhD, University of Tennessee-Knoxville, 1989.


Muna, Richard D., Associate Professor and Acting Chairperson, Physician Assistant (1994). BS, University of Texas Medical Branch-Galveston, 1987; MPH, University of Texas Health Science Center-Houston, 1993.

Murdock, Katherine, Professor, School of Music (1988). BA, Humboldt State University, 1971; BA, 1977; MA, San Francisco State University, 1980; PhD, Eastman School of Music, University of Rochester, 1986.

Muthitharan, Achita (M), Assistant Professor, Finance, Real Estate, and Decision Sciences (2002). BusAdm, Thammasat University, Thailand, 1991; MBA, University of Memphis, 1997; ABD.


Myose, Roy Y., Associate Professor, Aerospace Engineering (1992). BSAE, University of Southern California, 1983; MS, California Institute of Technology, 1984; PhD, University of Southern California, 1991.

Nagati, M. Gawad, Associate Professor, Aerospace Engineering (1984). BS, Cairo University, Egypt, 1966; MS, Wichita State University, 1975; PhD, Iowa State University, 1984.

Namuduri, Kameswara R., Assistant Professor, Electrical and Computer Engineering (2002). BS, Osmania University, 1984; MSC, Central University-Hyderabad, India, 1986; PhD, University of South Florida, 1992.

Nance, Donald W., Associate Professor and Director, Counseling Service (1968). BA, University of Redlands, 1964; MA, University of Iowa, 1967; PhD, 1968.


O'Flaherty Perez, Kathleen M., Associate Professor, Sociology (1983). BA, Clarke College, 1979; MA, Miami University, 1980; PhD, Purdue University, 1984.

Okafor, Chinyere, Associate Professor, Women's Studies/Religion (2002). BA, University of Nigeria, 1975; PGD, University College, Cardiff, 1977; MA, University of Sussex, 1979; PhD, University of Nigeria, 1989.


Falmer, Michael, Assistant Professor and Director of Orchestras, School of Music (1999). BM, Indiana University, 1966; MM, 1977.

Falmiöte, Michael, Professor, School of Community Affairs, Criminal Justice Program (1994). BS, Mercy College, 1971; MS, City University of New York, 1974; PhD, University of Pittsburgh, 1980.


Parcell, William C., Assistant Professor, Geology (2001). BS, University of the South, 1994; MS, University of Delaware, 1997; PhD, University of Alabama, 2000.


Patterson, Jean, Assistant Professor, Administration, Counseling, Educational, and School Psycholog-
Pendse, Ravindra, Associate Professor, Electrical and Computer Engineering and Director, Center for Teaching and Research Excellence (1994). BSEE, Osmania University, India; 1982; MSE, Wichita State University, 1985; PhD, 1994.


Petit, Timothy L., Assistant Professor, Management (1996). BA, Saint Leo College, 1989; MBA, University of Memphis, 1992; PhD, 1998.

Pfannestiel, Maurice, Associate Professor, Economics (1966). BA, Fort Hays State University, 1960; MS, Oklahoma State University, 1966; PhD, 1967.


Platt, Kenneth H., Professor, Physical Therapy (1987). BS, University of San Francisco, 1968; MS, Fort Hays State University, 1980; PhD, University of Texas Health Science Center-Dallas, 1986.

Popp, Harold A., Professor, Music (1993). BME, Ottawa University, 1959; MME, Indiana University, 1968; MFA, University of Iowa, 1967; PhD, 1969; MHL (Honorary Degree), Ottawa University, 1979.

Porter, Stephen S., Associate Professor, Marketing (1995). BS, Friends University, 1976; MBA, Wichita State University, 1982; PhD, Oklahoma State University, 1994.


Quantic, Diane D., Associate Professor and Graduate Coordinator, English (1973). BA, Kansas State University, 1962; MA, 1966; PhD, 1971.


Quirin, Jeffrey J., Assistant Professor, School of Accountancy (2000). BS, Pittsburgh State University, 1994; MBA, 1995; PhD, University of Nebraska-Lincoln, 1998.


Ravirajpurajan, Tiruvadi S., Associate Professor, Mechanical Engineering (1991). BE, University of Madura, 1978; ME, Howard University, 1981; PhD, Iowa State University, 1986; Licensed Professional Engineer-Iowa.


Reed, Paul E., Associate Professor, School of Music (1966). BM, Drake University, 1956; MM, 1957.

Reissig, Bradford D., Assistant Professor, School of Performing Arts (1999). BS, Kansas State University, 1991; MFA, Illinois State University, 1996.


Richardson, William H., Associate Professor and Associate Chairperson, Mathematics and Statistics (1982). AB, California State University, Chico, 1999; MS, Iowa State University, 1961.


Rimmington, Glyn M., Boeing Professor of Global Learning (2001). BS, University of Queensland, 1980; PhD, 1986.

Riordan, Janice, Associate Professor, School of Nursing (1993). Diploma in School of Nursing, Evangelical Deaconess Hospital, 1955; BS, Kansas Newman College, 1976; MN, Wichita State University, 1979; EdD, Oklahoma State University, 1987.


Rogers, Michael E., Associate Professor, Kinesiology and Sport Studies (1998). BS, Mount Union College, 1991; PhD, Kent State University, 1996.


Romig, Charles A., Professor and Chairperson, Administration, Counseling, Educational, and School Psychology (1985). BA, University of Illinois, 1977; MA, Trinity Evangelical Divinity School, 1979; PhD, Purdue University, 1982.


Roush, Dean, Associate Professor, School of Music (1988). BFA, Ohio University, 1973; MM, Bowling Green State University, 1975; DMA, Ohio State University, 1985.


Rozelle, Robert W., Assistant Professor and Director, University Advising Center (1978). BA, University of New York, Cortland, 1966; MEd, Ohio University, 1967.

Ruder, Judy K., Instructor, Department of Curriculum and Instruction (2001). BA, Fort Hays State University, 1963; MED, Fort Hays University, 1981.


Saatmann, Dieter, Professor and Chairperson, Modern and Classical Languages and Literatures (1971). BA, Northwestern State University, 1963; MA, Johns Hopkins University, 1965; PhD, Washington University, 1970.


Schierz, Julie, Associate Professor, Communicative Disorders and Sciences (1998). BA, Wichita State University, 1989; MA, 1971; PhD, 1989.


Schmeegrg, Mark A., Assistant Professor, Biological Sciences (2000). BS, Rensselaer Polytechnic Institute, 1984; MS, 1989; PhD, Brown University, 1989.

Tran, Anh, Assistant Professor, Department of Curriculum and Instruction (2002). BA, Saigon University (1973); MA, Wichita State University, 1993; PhD, Kansas State University, 2002.

Trechak, Andrew, Jr., Associate Professor, School of Music (1980). BM, Oberlin Conservatory, 1973; MM, State University of New York-Stony Brook, 1975; DMA, University of Texas-Austin, 1988.


Van Stipdonk, Michael J., Assistant Professor, Chemistry (2000). BA, University of Detroit, 1989; PhD, Texas A&M University, 1994.


Weheba, Gamal S., Assistant Professor, Industrial and Manufacturing Engineering (2000). BS, Menoufia University, 1981; MS, 1987; PhD, University of Central Florida, 1996.

Wells, Candace, Assistant Professor, Curriculum and Instruction (1980). BA, University of Chicago, 1971; MA, University of Missouri, 1973; EDD, Oklahoma State University, 1980.


White, Paula K., Instructor, English; Director, Kansas Writing Project; and Director, English Writing Lab (2001). BS, University of Houston-Victoria, 1990; MA, Wichita State University, 1999.

Whitman, Lawrence E., Assistant Professor, Industrial and Manufacturing Engineering (1999). BSET, Oklahoma State University, 1984; MSEM, 1986; PhD, University of Texas-Arlington, 1999.

Widener, Russell D., Associate Professor, School of Music (1981). BM, Baylor University, 1968; MM, Catholic University, 1972.


Williams, Daniel R., Assistant Professor, School of Performing Arts (2002). BFA, Tarkio College, 1988; MFA, Southern Illinois University, 1994.

Williams, Jackie N., Senior Distinguished Fellow, School of Community Affairs, Criminal Justice Program (2001). BA, Wichita State University, 1967; JD, Washburn University School of Law, 1970.

Williamson, L. Keith, Associate Professor, Elliott School of Communication, (1972). BA, Wichita State University, 1965; MTh, Southern Methodist University, 1968; PhD, Temple University, 1975.

Wilson, Camilla M., Associate Professor and Chairperson, Physical Therapy (2002). BS, University of Kansas, 1970; MS, 1978; PhD, 1992.


Wine, Thomas R., Associate Professor, School of Music (1995). BAME, Alderson-Broaddus College, Philippines, 1980; MME, Duquesne University, 1982; PhD, Florida State University, 1994.


Withrow, Brian, Assistant Professor, School of Community Affairs, Criminal Justice Program, and Director, Midwest Criminal Justice Institute (1999). BA, Stephen F. Austin State University, 1981; MPA, Southwestern Texas State University, 1993; PhD, Sam Houston State University, 1999.


Wolf, Christian, Assistant Professor, Mathematics (2002). Diplom in Math, University of Munich, 1994; PhD, Technical University of Munich, 1999.


Wong, John D., Associate Professor, Hugo Wall School of Urban and Public Affairs (1990). BBA, Wichita State University, 1992; MA, 1994; JD, Washburn University, 1996; PhD, Northeastern University, 1990.

Wood, Michael A., Assistant Professor, Elliott School of Communication, and Executive Director, Media Resources Center (1985). BS, Kansas State University, 1969; MS, 1973; MFA, University of Southern California, 1979.


Wright, David W., Associate Professor, Sociology (1993). BA, Indiana University-Purdue University at Indianapolis, 1987; MA, Purdue University, 1989; PhD, 1992.

Wynn, Victor, Assistant Professor, Sociology (2000). BA, Oakland University, 1993; MA, University of Iowa, 1996; PhD, 2001.


Yang, C. Charles, Associate Professor, Mechanical Engineering (1997). BS, National Taiwan University, 1985; MS, 1987; PhD, Louisiana State University, 1993. Licensed Professional Engineer—Louisiana.

Yang, Wan, Assistant Professor and Graduate Coordinator, Geology (1999). BS, Northwestern University, China 1984; MS, California State University at Fresno, 1990; PhD, University of Texas at Austin, 1995.


Yeots, Catherine G., Associate Professor, Curriculum and Instruction (1979). BS, Michigan State University, 1963; MS, Purdue University, 1973; PhD, 1978.

Yildirim, Mehmet B., Assistant Professor, Industrial and Manufacturing Engineering (2002). BS, Bogazici University, 1994; MS, Bilikent University, 1996; PhD, University of Florida, 2001.

York, Paul K., Professor, Electrical and Computer Engineering (1989). BSEE, Texas A&M University, 1961; MSEE, University of New Mexico, 1963; PhD, Texas A&M University, 1967.

Youngman, Arthur L., Assistant Professor, Biological Sciences (1965). BA, Montana State University, 1959; MS, Case Western Reserve University, 1961; PhD, University of Texas, 1965.

Zandler, Melvin E., Professor, Chemistry (1966). BA, Friends University, 1960; MS, Wichita State University, 1963; PhD, Arizona State University, 1965.

Zettle, Robert, Associate Professor and Graduate Coordinator, Psychology (1984). BA, Wilkes University, 1974; MA, Bucknell University, 1976; PhD, University of North Carolina-Greensboro, 1984.

Zhang, Sha Li, Associate Professor and Head of Technical Services, University Libraries (1999). BA, Lanzhou University, 1982; Librarian Certificate, Fundan University, 1983. Librarian Certificate, Peking University, 1984; MLS, University of Tennessee, 1988.

Zoller, Peter T., Associate Professor, English, and Associate Vice President, Academic Affairs (1973). BA, University of San Francisco, 1965; MA, Claremont Graduate School, 1966; PhD, 1970.
Retired Faculty

Adams, Carl L.
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Ahlgren, Clark D.
Allen, Anneke S.
Allen, June S.
Alley, Robert D.
Anderson, Robert E.
Armstrong, Warren B.
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Kruger, Susan F.
Kukul, Dean K.
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Werhriit, Robert C.
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Wiebe, Raymond F.
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Wilson, John H.
Yoon, J.N.
Zumwalt, Glen W.
Map Legend
Facilities are identified with a letter corresponding to their location on the map.

Buildings
Ablah Library (D)
Ahlberg Hall (C)
Beech Wind Tunnel (D)
Blake Hall (B)
Brennan Hall I (C)
Brennan Hall II (C)
Brennan Hall III (C)
CAC Theater (E)
Central Energy Plant (D)
Cessna Stadium (C)
Child Development Center (A)
Clinton Hall (C)
Corbin Education Center (D)
Credit Union (D)
Devlin Hall (C)
Duerksen Fine Arts Center (B)
Eck Stadium (E)
Elliot Hall (C)
Engineering Building (D)
Fairmount Towers Commons (A)
Fairmount Towers North (A)
Fairmount Towers South (A)
Fiske Hall (B)
Gaddis Physical Plant Complex (D, E)
Gardner Plaza (C)
Garvey International Center (A)
Geology Building (C)
Golf Course Maintenance Building (E)
Golf Pro Shop (F)
Grace Memorial Chapel (C)
Grace Wilkie Hall (D)
Greenhouse (D)
Hensron Hall (C)
Heskett Center (D)
Heskett Center Storage (D)
Housing Maintenance Shop (A)
Hubbard Hall (C)
Human Resources Center (C)
Intensive English Language Center (A)
Jabaral Hall (C)
Jardine Hall (C)
Koch Arena (B)
Lindquist Hall (C)
Lutheran Student Center (D)
Marcus Welcome Center (F)
McKinley Hall (B)
McKnight Art Center (B)
Media Resources Center (D)
Memorial '70 (B)
Metropolitan Complex, Eugene M. Hughes (inset)
Morrison Hall (C)
National Institute for Aviation Research (E)
Neff Hall (C)
Neuman Center (D)
Original Pizza Hut (D)
Plaza of Heroines (C)
Police Department (D)
President's Residence (B)
Printing Services (D)
Rhatigan Student Center (C)
Sheldon Coleman Tennis Complex (C)
Tyler Field (E)
Ulrich Museum of Art (B)

Visual Communications (D)
Wallace Hall (D)
Warehouse (E)
Welcome Center (proposed) (E, F)
Wheatshocker Apartments (E)
Wiedemann Hall (B)
Wilkins Stadium (D)
Wilner Auditorium (B)
Woodman Alumni Center (F)

Fraternities
Beta Theta Pi (A)
Delta Upsilon (C)
Kappa Sigma (D)
Phi Delta Theta (E)
Sigma Alpha Epsilon (B)
Sigma Phi Epsilon (C)

Sororities
Alpha Phi (D)
Delta Delta Delta (D)
Delta Gamma (D)
Gamma Phi Beta (D)

Wichita State has an ongoing program to provide people with disabilities full access to all buildings, however, some barriers still exist. For information regarding any campus building’s accessibility to the disabled, call the Office of Disability Services, (316) 978-3309.

Visitors to the Wichita State campus should obtain temporary parking permits from the Police Department, open 24 hours a day.
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Key to Course Descriptions

Symbols

When two course numbers are joined by a hyphen (-), the first semester is prerequisite to the second; when the numbers have an ampersand (&) between them, the two semesters may be taken in either order. Unless specifically noted otherwise, the first course listed is offered in the fall semester and the second in the spring.

The number of hours of credit for each course is indicated in parentheses following the course title. The number of class meetings per week is not always the same as the number of credit hours. Two hours of laboratory work usually are required for 1 hour of credit. In courses involving meetings other than lectures, the following symbols are used: R, lecture; L, laboratory; C, conference; D, demonstration; and P, practicum/clinical, with the hours of practicum/clinical per week given in front of the letter (6-8P means six to eight hours of practicum/clinical per week).

Abbreviations

The following abbreviations of academic departments and areas are used in references to courses offered by those departments:

ACCT Accounting
AE Aerospace Engineering
ANTHR Anthropology
ART E Art Education
ART F Art and Design Foundation
ART G Graphic Design
ART H Art History
ART S Studio Arts
BA General Business Administration
B LAW Business Law

BIOL Biological Sciences
CDS Communicative Disorders and Sciences Counseling, Educational, and School Psychology
CEESP Counseling, Educational, and School Psychology

CHEM Chemistry
CI Curriculum and Instruction
CJ Criminal Justice
COMM Communication
CS Computer Science
DANCE Dance
DH Dental Hygiene
DS Decision Sciences
EAS Educational Administration and Supervision

ECON Economics
ECE Electrical and Computer Engineering
EMBA Executive Master of Business Administration
ENGL English Language and Literature
ENGR General Engineering
ENTRE Entrepreneurship
ETHS Ethnic Studies
FA Fine Arts—general
FIN Finance
FREN French
GEOG Geography
GEOL Geology
GERM German
GERON Gerontology
HIST History
HNRS Honors Program
HP Health Professions—general
HRM Human Resource Management
HS Health Sciences
IE Industrial Engineering
KSS Kinesiology and Sport Studies
LAS-I Liberal Arts Interdisciplinary
LATIN Latin
LEGAL Legal Assistant
LING Linguistics
MATH Mathematics
MBA Master of Business Administration
MLT Modern and Classical Languages and Literatures
ME Mechanical Engineering
MED T Medical Technology
MFG E Manufacturing Engineering
MGMT Management
MCT Mobile Intensive Care Technician
MIS Management Information Systems
MKT Marketing
MUS A Applied Music
MUS C Musicology-Composition
MUS E Music Education
MUS P Music Performance
NURS Nursing
PA Physician Assistant
P ADM Public Administration
PHIL Philosophy
PHS Public Health Sciences
PHYS Physics
POL S Political Science
PSY Psychology
PT Physical Therapy
RE Real Estate and Land Use Economics
REL Religion
RUSS Russian
SC WK Social Work
SOC Sociology
SPAN Spanish
STAT Statistics
THEA Theatre
WOM S Women's Studies
# Degrees and Academic Majors by College or Division

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<th>M</th>
<th>D</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aerospace Engineering</td>
<td>B</td>
<td>M</td>
<td>D</td>
</tr>
<tr>
<td>Computer Engineering</td>
<td>B</td>
<td></td>
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<tr>
<td>Electrical Engineering</td>
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<td>D</td>
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<tr>
<td>Engineering Management</td>
<td>M</td>
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<tr>
<td>Industrial Engineering</td>
<td>B</td>
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<td>D</td>
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<tr>
<td>Manufacturing Engineering</td>
<td>B</td>
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<tr>
<td>Mechanical Engineering</td>
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<td>M</td>
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</tbody>
</table>

## College of Fine Arts

<table>
<thead>
<tr>
<th>College of Fine Arts</th>
<th>B</th>
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</thead>
<tbody>
<tr>
<td>Art Education</td>
<td>B</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Art History</td>
<td>B</td>
<td></td>
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</tr>
<tr>
<td>Art Studio Art</td>
<td>B</td>
<td>M</td>
<td>*</td>
</tr>
<tr>
<td>(Emphasis: Ceramics, Drawing and Painting, Printmaking, Sculpture)</td>
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</tr>
<tr>
<td>Graphic Design</td>
<td>B</td>
<td></td>
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</tr>
<tr>
<td>Music</td>
<td>B</td>
<td>M</td>
<td></td>
</tr>
<tr>
<td>(Emphasis: History-Literature, Performance, Piano Pedagogy, Theory-Composition)</td>
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</tr>
<tr>
<td>Music Education</td>
<td>B</td>
<td>M</td>
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</tr>
<tr>
<td>Musical Theatre</td>
<td>B</td>
<td></td>
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<tr>
<td>Performing Arts-Dance</td>
<td>B</td>
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<tr>
<td>Theatre</td>
<td>B</td>
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</tbody>
</table>

## Pre-Professional Programs

<table>
<thead>
<tr>
<th>Pre-Professional Programs</th>
<th>B</th>
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</thead>
<tbody>
<tr>
<td>LAS, Medicine, Dentistry, Optometry, Pharmacy, Podiatry, Veterinary Medicine, Chiropractic</td>
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</tr>
</tbody>
</table>

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A = Associate B = Bachelor M = Master S = Specialist D = Doctorate

* Master of Fine Arts, a terminal degree