2009-2010

Undergraduate Catalog

Wichita State University
Academic Programs at Wichita State University
Are Accredited by or Hold Membership
in the Following Associations

Higher Learning Commission of the North Central Association of Colleges and Schools*
Association to Advance Collegiate Schools of Business—Business and Accounting
Accreditation Board of Engineering and Technology
Accreditation Review Commission on Physician Assistant Education
American Chemical Society
American Dental Educators’ Association
American Psychological Association
American Speech-Language and Hearing Association
Commission on Collegiate Nursing Education
Commission on Accreditation in Physical Therapy Education of the American Physical Therapy Association
Commission on Accreditation of Athletic Training Education
Commission on Dental Accreditation of the American Dental Association
Council on Social Work Education
Human Factors and Ergonomics Society
Kansas State Board of Nursing
Kansas State Department of Education
National Accrediting Agency for Clinical Laboratory Sciences
National Association of Schools of Art and Design
National Association of Schools of Dance
National Association of Schools of Music
National Association of Schools of Public Affairs Administration
National Association of School Psychologists
National Council for Accreditation of Teacher Education
Sport Management Program Council

*Higher Learning Commission of the North Central Association of Colleges and Schools
30 North LaSalle Street, Suite 2400; Chicago, Illinois 60602-2504; (312) 263-0456.
www.hlcommission.org
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Undergraduate Catalog 2009-2010
This catalog is a guide for information only and is not a contract. This catalog becomes effective fall semester 2009
and extends through the summer session 2010. The official university address is Wichita State University, 1845
Fairmount, Wichita, Kansas 67260. The general university telephone number is (316) 978-7000. 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 Wichita State’s degree and nondegree programs. Learn about these and find a complete guide to becoming an official WSU student in this Catalog. You will also want to visit our new, state-of-the-art, Welcome Center, which houses our undergraduate admissions office.

The next step is to look carefully at your educational options. Check out the range of WSU’s advising services in this Catalog 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 schedule. 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 adviser, you’ll be ready to sign up for classes through online 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 Shocker Connection 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 about 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. 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 also 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 nationally recognized research. You’ll find their scholarly contributions and the results of their faculty’s merit is also 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 the Courses offered in each area.

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their title, academic field, and educational background.

About WSU’s Urban 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 a wide range of general education classes at our West Campus, located near 37th Street and Maize Road (3801 N. Walker Avenue) and at our new South Campus, located just off of K-15 in Derby at the Town Center shopping center.

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 a student Convocation and 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, weight room, 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, WSU fine arts programs, 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 your academic world, make your life as a student easier, and help you build strong ties to Wichita State University.
Academic Calendar for 2009–2010

Fall Semester 2009
April–August ...................................... Fall semester registration
August 20 ............................................. Weekday and evening classes begin
September 7 ......................................... Labor Day, holiday
October 14 ......................................... Midterm point
October 15–16 ...................................... Fall recess
November 2 ......................................... Final date for withdrawal with nonpenalty grades
November 17 ........................................ Web registration for spring semester begins
(exact dates published in the Schedule of Courses)
November 25–29 ................................... Thanksgiving recess
December 10 ....................................... Last day of classes
December 11 ....................................... Study day
December 12–18 .................................... Final examinations
December 18 ....................................... Fall semester ends
TBA .................................................... Commencement

Spring Semester 2010
November–January .............................. Spring semester registration
January 18 ......................................... Martin Luther King, Jr. Day, holiday
January 19 ......................................... Classes begin
March 12 ............................................. Midterm point
March 15–21 ........................................ Spring recess
April 5 .................................................. Final date for withdrawal with nonpenalty grades
April 6 .................................................. Web registration for fall semester begins
(exact dates published in the Schedule of Courses)
May 10 .............................................. Last day of classes
May 11 .............................................. Study day
May 12–18 ........................................... Final examinations
May 18 .............................................. Spring semester ends
TBA .................................................... Commencement

Summer Session 2010
April–June .......................................... Summer session registration
May 31 ............................................... Memorial Day, holiday
May 24–June 4 .................................... Presession and workshops
June 7 ............................................... Classes begin, first four-week term and eight-week term
July 3 ............................................... Last day of first four-week term
Registration for second four-week term
July 5 ............................................... Independence Day, holiday
July 6 ............................................... Classes begin, second four-week term
July 30 ............................................ Summer session ends

These dates are subject to change.
General Information

2009–2010 University and Academic Officers
Donald L. Beggs, president
Gary L. Miller, provost and vice president for academic affairs and research
Ted D. Ayres, vice president and general counsel
Mary L. Herrin, vice president for administration and finance
Ronald R. Kopita, vice president for campus life and university relations
Eric Sexton, director of Intercollegiate Athletic Association, Inc.
Andrew Schlapp, director, government relations
J. David McDonald, associate provost for research and dean of the Graduate School
Douglas Hensler, dean of the W. Frank Burton School of Business
Sharon H. Iorio, dean of the College of Education
Zulma Toro-Ramos, dean of the College of Engineering
Rodney E. Miller, dean of the College of Fine Arts
Peter A. Cohen, dean of the College of Health Professions
William Bischoff, dean of the Fairmount College of Liberal Arts and Sciences
Pal Rao, dean of university libraries
Cheryl M. Adams, dean of students
Christine Schneikart-Luebbe, dean of enrollment services

Kansas Board of Regents
Reginald L. Robinson, president and CEO
Board Members:
Jerry Boettcher, Beloit
Jill Docking, Wichita
Christine Downey-Schmidt, Inman, chair
Richard “Dick” Hedges, Fort Scott
Dan Lykins, Topeka
Jamie Perkins, Garden City
Donna Shank, Liberal
Gary Sherrer, Overland Park
William “Bill” Thornton, Atchison

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 over 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 urban 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 using the human diversity of Wichita, the state’s largest urban 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, urban university of national stature.

Wichita State University Profile
Wichita State University, as one of the six universities governed by the Kansas Board of Regents, is Kansas’ only urban-serving research university.

WSU’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. WSU is also a local resource for businesses, industry, nonprofits and local government.

Both traditional and nontraditional students enjoy a wide selection of day,
Regional Community Policing Training is one of the top research universities for to the National Science Foundation, WSU composites and aging aircraft. According agencies as the FAA and NASA to continue research and public service as integral of entering freshmen at Wichita State is 19; the average age of all undergraduate students is 24. Nearly 60 percent of the students attend full time, while the remainder attend part time and take advantage of gaining work experience at local companies such as Boeing, Hawker Beechcraft, Cessna Aircraft, Coleman, Bank of America, Bombardier Aerospace-Learjet, Via Christi Regional Medical Center, Wesley Medical Center and Koch Industries. Many students also take advantage of WSU's work-based learning program, which has partnerships with 500 top organizations in the United States.

Wichita State, which is classified by the Carnegie Foundation as a doctoral granting, high research institution, offers nearly 60 undergraduate degrees 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 the Fairmount College of Liberal Arts and Sciences. It also offers an associate's degree and 12 certificate programs. The Graduate School offers an extensive program including 54 master's degrees, a specialist in education degree, 12 doctoral degrees, and 28 certificate programs. WSU is accredited by the North Central Association of Colleges and Schools and 22 program-specific accrediting agencies. A listing of WSU programs and degrees is located on the Catalog's inside back cover.

Wichita State has 480 full-time faculty and 40 part-time faculty, with 73 percent of the faculty having earned the highest degree in their field.

Although WSU's first commitment is to excellence in instruction, it has an equally strong commitment to excellence in research and public service as integral parts of its educational mission. The National Institute for Aviation Research consistently receives funding from such agencies as the FAA and NASA to continue important research in such areas as composites and aging aircraft. According to the National Science Foundation, WSU is one of the top research universities for aerospace research in the country. WSU's Regional Community Policing Training Institute is helping train law enforcement and other officials in the region on such relevant topics as counterterrorism.

Businesses, local government, industry and nonprofits benefit from such WSU resources as the Mid-America Manufacturing Technology Center, Small Business Development Center, Center for Management Development, the Center for Entrepreneurship, the Center for Community Support and Research, the Hugo Wall Center for Urban and Public Affairs, and the new Market-Based Management Center.

WSU offers numerous recreational and cultural opportunities through the many concerts, recitals, theater, dance and other productions performed in its fine arts facilities. The Ulrich Museum of Art specializes in contemporary art. More than 60 pieces of sculpture by internationally known artists adorn the campus as part of the Martin H. Bush Outdoor Sculpture Collection, which has been recognized as one of the top 10 campus art collections by Public Art Review. In 2004, WSU became only the second U.S. university to acquire a sculpture by renowned artist Andy Goldsworthy. The university's premier cultural collection of Asmat art, one of the largest such collections in the United States, is on display in its Lowell D. Holmes Museum of Anthropology.

As an NCAA Division I institution, WSU fields teams in tennis, cross country, basketball, track, golf, crew, bowling, men's baseball, and women's volleyball and softball.

More than 150 social and special interest clubs provide opportunities for students to meet and work with others who share their interests. Approximately 18 national sororities and fraternities are active on campus.

The 330-acre campus is modern and accessible and at the same time retains the flavor of the university's heritage, combining distinctive Georgian-style architecture with more modern buildings of stone and brick that are accentuated by attractive landscaping. During the past 25 years, Wichita State has more than doubled its instructional space, adding major buildings for art, engineering, health sciences, sciences, physical education, music, dance, and liberal arts and sciences.

To find out more about WSU, go online to wichita.edu.

History

Wichita State University 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 entered the state system of higher education. The citizens of Wichita had voted to move the university into the state system and when the measure passed the Kansas Legislature, Wichita endowed WSU with a 1.5 mill levy, a tax that was later adopted by Sedgwick County. The WSU Board of Trustees administers these funds and other local assets of the university.


University Support Areas

Alumni Association

Deborah L. Kennedy, Executive Director

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 Shockers 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 field 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 tag program pours thousands of dollars each year into WSU’s general scholarship fund. The association also helps support WSU’s Student Ambassador Society.

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

WSU Foundation
Elizabeth H. King, president and CEO
The WSU Foundation, the private fundraising organization of the university, strives to enhance a community of learning excellence for our students and faculty through philanthropy and stewardship. Private contributions are necessary to support the programs and vision of the university beyond current funding from fees, tuition, and government monies.

Gifts of cash, stock, real estate, and in-kind gifts are coordinated through the foundation. Planned gifts, most commonly established through a donor’s estate or insurance policy set up to benefit the university, also are coordinated through the foundation.

For fiscal year 2008, $4.4 million was given to university programs from endowed funds of the foundation. Of that, $2.1 million was in the form of scholarships to undergraduate students. The remainder funds projects such as faculty support, research, Ablah Library, and the Ulrich Museum of Art.

For more information, contact 978-3040 or foundation.wichita.edu, where contributions can be made online.

Admission to Wichita State

Undergraduate Admission
WSU admits students at the undergraduate level as freshmen and transfer students. Depending on their academic goal, students may choose to be degree-bound or non-degree-bound.

Admission to a specific professional program can be achieved only after admission to the university. Students must meet the requirements of the professional program. Admission to some professional programs is very competitive.

<table>
<thead>
<tr>
<th><strong>Admission Requirements</strong>—Undergraduate; Domestic</th>
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<tbody>
<tr>
<td><strong>Freshmen</strong></td>
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<tr>
<td>Note: These standards apply to those graduating from high school 2001 or after.</td>
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<tr>
<td><strong>Kansas residents attending accredited high schools</strong> must:</td>
</tr>
<tr>
<td>• Achieve a minimum ACT composite of 21 or a minimum combined SAT-I of 980 (verbal and math scores); or</td>
</tr>
<tr>
<td>• Rank in the top one-third of their high school’s graduating class; or</td>
</tr>
<tr>
<td>• Complete the precollege curriculum* with at least a 2.000 grade point average (GPA) on a 4.000 scale.</td>
</tr>
<tr>
<td><strong>Non-residents</strong> attending accredited high schools must:</td>
</tr>
<tr>
<td>• Achieve a minimum ACT composite of 21 or a minimum combined SAT-I of 980 (verbal and math scores); or</td>
</tr>
<tr>
<td>• Rank in the top one-third of their high school’s graduating class; or</td>
</tr>
<tr>
<td>• Complete the precollege curriculum* with at least a 2.500 grade point average (GPA) on a 4.000 scale.</td>
</tr>
<tr>
<td><strong>Kansas residents attending non-accredited high schools</strong> (including permanent residents with international high school work) or home-schooled students:</td>
</tr>
<tr>
<td>• Can be admitted with a qualifying Kansas GED (see scores below); or</td>
</tr>
<tr>
<td>• Students who have at least a 21 on the ACT (SAT of 980) can be admitted through the 10% exceptions window. Please note the following regarding the exceptions window: the exceptions window holds 10% of all freshmen admits. As the number of regularly admitted freshmen grows over the course of the year, the number of students that can fit in the 10% window will grow. Students applying after the 10% maximum has been reached may still be tentatively admitted by exception if they have the minimum ACT, and if space becomes available. If not, they will be required to submit qualifying GED scores for final admission. These scores are due no later than the end of the first semester at WSU.</td>
</tr>
<tr>
<td><strong>Non-residents</strong> from non-accredited high schools are reviewed on a case-by-case basis. For more information, please contact the Office of Admissions.</td>
</tr>
<tr>
<td><strong>GED students</strong> must:</td>
</tr>
<tr>
<td>• Have a minimum score of 510 on each sub-test and an overall score of 2,550 to be admitted.</td>
</tr>
<tr>
<td><strong>Transfer students</strong></td>
</tr>
<tr>
<td>• With 24 or more transfer hours, must have a minimum cumulative GPA of 2.000 (on a 4.000 scale) on all previous college work.</td>
</tr>
<tr>
<td>• With 23 or fewer transfer hours, must have a minimum cumulative GPA of 2.000, and meet one of the freshman qualified admissions requirements.</td>
</tr>
<tr>
<td><strong>Some academic colleges at Wichita State require an additional transfer GPA requirement for admission. For more information contact the WSU Office of Admissions.</strong></td>
</tr>
<tr>
<td>Admission remains open to Kansas residents over the age of 21 with fewer than 24 transfer credit hours who have graduated from an accredited high school or have completed a GED.</td>
</tr>
<tr>
<td>Transfer students are encouraged to bring copies of their academic transcript and meet with an academic adviser prior to enrolling. The adviser can provide information about degree requirements and the eligibility of the students’ prior coursework towards their degree of choice. Contact an academic adviser through the dean’s office. See page 12.</td>
</tr>
<tr>
<td>WSU participates in the Transfer and Articulation Agreement of the Kansas Public Community Colleges and State Colleges and Universities. See page 20.</td>
</tr>
</tbody>
</table>

Students transferring from a two-year college must complete at least 60 hours of four-year college work and 45 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 39.

*The Kansas Regents’ Qualified Admissions Precollege Curriculum requires: |
• Four units of English. |
• Three units of natural sciences (must include one unit of chemistry or physics). |
• Three units of math (at or above algebra I level). |
• Three units of social sciences (must include one unit of U.S. history, one half unit of government and one half unit in world history, world geography, or international relations). |
• One unit of computer technology. |
• Each Kansas high school has identified courses that meet the Kansas Board of Regents Precollege Curriculum. For information on approved courses for a specific school, contact the school counselor or visit the KBOR Web site at kansasregents.org. |

Note: One unit equals one year or two semesters of coursework.

**See residency requirements on page 43**
The admission procedures, outlined in the box, are for degree-bound domestic students. Information for non-degree-bound students is below. Information for international students follows.

**Admission Categories**

Students may be admitted as degree-bound or non-degree-bound students.

**Degree-bound** students who have declared an academic interest will be admitted to the college of their choice. They must meet the necessary requirements for admission to the university as well as the requirements of the colleges and departments of their choice. Students who are still deciding on an academic major will be admitted to Fairmount College of Liberal Arts and Sciences for academic advising and career counseling.

**Non-degree-bound** undergraduate is a category of admission for students who wish to pursue their education with no immediate degree plans. Students in this category are not eligible for financial aid. Copies of official college or high school transcripts should be sent to the Office of Admissions. Non-degree students can be admitted as either open admission or guest students.

**Open Admission.** An open admission student is one who:

- Has graduated from an accredited high school, or has a score of 2,550 on the GED, and has not attended any school for two years; or
- Has not graduated from high school or completed a GED, is at least 21 years of age, and has not attended any school for at least two years; or
- Is on active military duty; or
- Holds a bachelor's or higher degree.

Students admitted as open admission students will be considered non-degree for their first 15 credit hours. Beyond 15 credits, a student must apply to continue as a degree-bound student.

Submit an application for admission and the $30 application fee to become admitted to the university.

**Guest Students—College.** Summer: Students attending another college or university who wish to attend Wichita State temporarily during the summer should submit an application and application fee to the Office of Admissions. Fall/spring semesters: Students attending another college or university who wish to attend during a regular semester must submit an official transcript showing at least a 2.000 grade point average from their home institution in addition to the application and fee.

Guest admission is limited to 15 hours. Beyond the 15 hour limit, a student must apply for admission as a degree-bound student.

**Guest Students—High School.** Students who attend Wichita State before graduation from high school are considered to be high school guest students.

1. The deadline to enroll as a high school guest student is approximately one week prior to the first day of classes each semester.
2. High school guest students may not take more than 6 credit hours each semester without permission by the Office of Admissions or by an adviser in the Liberal Arts and Sciences Advising Center.
3. Admission to WSU does not constitute permission by academic departments to take courses. All prerequisites for a course must be met before the student enrolls.
4. Admission as a guest student does not guarantee admission as a degree-bound student after high school graduation.
5. High school guest students are admitted as a non-degree seeking students and are not eligible for federal aid.

To be admitted as a high school guest for the first time, students must:

1. Complete their sophomore year of high school. Younger students are considered on an individual basis;
2. Submit an Application for Admission form, including a non-refundable $30 application fee;
3. Submit a High School Guest Signature Form with the high school counselor’s signature;
4. Submit the High School Guest Responsibilities and Privileges form;
5. Submit an official high school transcript; and
6. The high school transcript must show a 3.000 cumulative GPA. Admission for students with a lower GPA can be requested from admissions by the high school counselor. Cases will be considered on an individual basis.

To renew admission as a high school guest:

1. High school guest admission must be renewed each semester;
2. Submit a new High School Guest Signature form signed by the high school counselor;
3. Submit an updated high school transcript;
4. The high school transcript must show a 3.000 cumulative GPA; and
5. WSU transcript must show a 2.000 cumulative GPA.

**Admission Procedures—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 at: admissions.wichita.edu

**High school students or college transfers with 1–23 hours of college credit**

- Submit a completed and signed application;
- Have an official high school transcript (minimum of six semesters) and college transcript(s), if applicable, sent directly to the WSU Office of Admissions from the issuing institution;
- Have ACT, SAT, or GED scores sent directly from the testing agency to the WSU Office of Admissions; and
- Submit a nonrefundable $30 application fee.

**College transfers with 24 or more hours of college credit**

- Submit a completed and signed application;
- Have official college transcript(s) sent directly to the WSU Office of Admissions from all the issuing institutions. Official high school transcripts are required only if seeking federal financial assistance; and
- Submit a nonrefundable $30 application fee.

Paper submissions should be sent to: Office of Admissions, Wichita State University
1845 Fairmount
Wichita, Kansas 67260-0124

*High school guest students have additional paperwork to submit. See Guest Students—High School section for more information.*
Academic advising is available to all high school guests by contacting the Liberal Arts and Sciences Advising Center in room 115 Grace Wilkie Hall. Call 978-3700 to schedule an appointment. wichita.edu/advising.

Web site for Application for Admission, High School Guest Signature Form, and High School Guest Responsibilities and Privileges form can be found at the admission Web site: admissions.wichita.edu. Click on the High School Guest Program link.

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 530 or higher on the paper-based test;
2. Obtain a TOEFL score* of 197 or higher on the computer-based test;
3. Obtain a TOEFL score* of 72 or higher on the Internet-based test;
4. Obtain an IELTS score of 6.0 or higher;
5. Obtain an SAT I verbal score of 410 or higher;
6. Obtain an ACT English section score of 20 or higher;
7. Obtain a score of 80 or higher on the WSU English Proficiency Examination;
8. Successfully complete the highest level of the WSU Intensive English Language Center;
9. Have 30 or more transferable semester credit hours from another U.S. college or university; or
10. Successfully complete Level 112 at ELS Language Center.

*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. U.S. $50 nonrefundable application fee; and
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 arriving in Wichita.

Graduate students. For more information, graduate students should consult the Graduate Catalog; the Web site (see below); or e-mail: gradinqu@wichita.edu

For more information, write:
Office of International Education
Wichita State University
Wichita, Kansas 67260-0122 USA
Telephone: (316) 978-3232
Fax: (316) 978-3777
E-mail: international@wichita.edu
Internet: wichita.edu/international

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 an academic adviser in their college of enrollment. There is a separate appeal process for international undergraduate admission through the international education office.

Former Students in Inactive Status
Students who have completed coursework at Wichita State University, but have not enrolled in the past 24 months, are placed in inactive status. To enroll again, inactive students must complete a reactivation form available at wichita.edu/registration. Students may request a paper form by calling (316) 978-3055 or faxing a request to (316) 978-3795. This should be done at least one month before any planned enrollment.

Admission to Dual/Accelerated Bachelor’s to Master’s Degree Programs
The dual/accelerated bachelor’s to master’s degree programs offer outstanding students the opportunity to advance their career in a significant way by pursuing the bachelor’s and master’s degrees in a parallel and coordinated program. In addition, it may be possible for the students to complete the requirements for both degrees (in the same field) in an accelerated time frame. The goal of this program is to provide students with a high level of academic advising culminating in the preparation of the graduate program of study while the student is still in their sophomore or junior year. Graduate education involves a close working relationship between a student and a graduate faculty mentor, and the dual/accelerated degree programs develop this relationship early in a student’s career. Dual/accelerated degree programs are available in:

• BA to MA in economics
• BS (in industrial or manufacturing engineering) to MS in industrial engineering
• BS to MS in mechanical engineering
• BSN to MSN in nursing
• BS to MS in mathematics

Each dual/accelerated program has specific admission requirements. Students should consult with the department’s graduate coordinator, if they are interested in this type of program.

Graduate Student Admission
Specific requirements for either degree or non-degree admission for all graduate programs are listed in Wichita State University’s Graduate Catalog. For further information about graduate admissions requirements, graduate programs, or to obtain graduate application materials, contact the Graduate School, 107 Jardine Hall, Wichita State University, 1845 Fairmount, Wichita, Kansas 67260-0004, (316) 978-3095, or visit wichita.edu/gradschool.
Where to Go for Academic Advising

Academic advising is available through individual offices listed below for (1) degree-bound students who have decided to pursue a major or program in a specific college; (2) degree-bound exploratory students who have not yet decided on a major; (3) non-degree-bound students who are enrolled in classes for purposes other than completing a degree; and (4) graduate students.

**Degree-Bound—Major Decided**

<table>
<thead>
<tr>
<th>Business</th>
<th>Fine Arts</th>
</tr>
</thead>
<tbody>
<tr>
<td>W. Frank Barton School of Business</td>
<td>College of Fine Arts</td>
</tr>
<tr>
<td>106 or 114 Clinton Hall</td>
<td>112 Jardine Hall</td>
</tr>
<tr>
<td>(316) WSU-3245</td>
<td>(316) WSU-3389</td>
</tr>
<tr>
<td>wichita.edu/barton</td>
<td>wichita.edu/finarts</td>
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<tr>
<th>Education</th>
<th>Health Professions</th>
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<tbody>
<tr>
<td>College of Education</td>
<td>College of Health</td>
</tr>
<tr>
<td>107 Corbin Education Center</td>
<td>Professions</td>
</tr>
<tr>
<td>(316) WSU-3300</td>
<td>402 Ahlberg Hall</td>
</tr>
<tr>
<td>wichita.edu/education</td>
<td>(316) WSU-3304</td>
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<tr>
<td></td>
<td>wichita.edu/chp_advising</td>
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<tr>
<th>Engineering</th>
<th>Liberal Arts and Sciences</th>
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<tbody>
<tr>
<td>College of Engineering</td>
<td>LAS Advising Center</td>
</tr>
<tr>
<td>100 Wallace Hall</td>
<td>115 Grace Wilkie Hall</td>
</tr>
<tr>
<td>(316) WSU-3400</td>
<td>(316) WSU-3700</td>
</tr>
<tr>
<td>wichita.edu/engineering</td>
<td>wichita.edu/advising</td>
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<tr>
<th>Degree-Bound—Exploratory or Non-degree-Bound</th>
<th>Graduate Students</th>
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<tbody>
<tr>
<td>LAS Advising Center</td>
<td>Graduate School</td>
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<tr>
<td>115 Grace Wilkie Hall</td>
<td>107 Jardine Hall</td>
</tr>
<tr>
<td>(316) WSU-3700</td>
<td>(316) WSU-3095</td>
</tr>
<tr>
<td>wichita.edu/advising</td>
<td>wichita.edu/gradscholar</td>
</tr>
</tbody>
</table>

**Shocker Connection: Orientation**

The orientation program connects new students to our learning community both academically and socially. New students will make connections to current student leaders, faculty and staff, learn about campus life experiences and opportunities, tour the campus, and get information on how to be a successful student.

*Degree-bound Students:* Because orientation and educational planning are not prerequisites to education, but rather 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 Registration. After new students have met with their academic advisers who help them build their class schedules, consider career or life goals, register for classes and obtain Shocker Cards, they are required to attend orientation. Information about advising, registration, 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. LASI 100A, 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) 978-3700, or visit wichita.edu/advising for more information about the seminar.

In addition to the Shocker Connection process, new students are encouraged to register in a freshman seminar course offered in four colleges. This course equips students with knowledge and skills about how to be successful in their academic careers. See the sections on Student Academic Success.

The orientation program is being updated. For the latest information visit the admissions Web site at wichita.edu/admissions, or contact the Office of Admissions—Orientation, (316) 978-3085.

**Academic Advising**

Advising at Wichita State University is an ongoing educational partnership between the student and professional/faculty advisers and advising staff. Advising promotes student academic success with the goal of student persistence to graduation. The university, through such units as the Advisor Council and The Advising Network (TAN) assures that all academic advisers have the knowledge and skills needed, and professional development opportunities required to maintain and advance these skills.

Academic advisers form partnerships with students in the following ways:

- Assist students to set goals—both short term and longer term—that help them in determining and achieving their degree objectives.
- Academic advisers provide, and can also show students how to access, accurate information in both printed and electronic format, about the graduation requirements of degree programs, and can work with students to plan the strategic progression of coursework that will allow graduation in the most timely manner consistent with the student’s life circumstances. Advisers can provide career information regarding the degree fields of interest, and will also refer students to appropriate career research resources in printed, electronic, or in-person format.
- Academic advisers are well informed about official university policies and procedures for enrollment, dropping or adding courses, changing colleges, changing majors, and other such policies and procedures important to a student’s ability to progress. Advisers are also able to instruct students in the execution of those procedures. Advisers can also show students how to access reliable and accurate sources for university policies and procedures in both print and electronic format.
- Students are given access to various means of initiating contact with an academic adviser, including e-mail, phone, and personal contact. Academic advisers are available to meet with the student within a reasonable time frame after the student’s request, and appointment time(s) will be allotted to carry out the activities needed.
- Academic advisers have comprehensive knowledge of campus resources, including electronic resources, which are important to student success at the university, and can show students how to access that information. Advisers assist students in referral and access to such services as counseling, career and employment services, assisted instruction, success courses, math and writing labs and other helpful available for the student’s academic skill development.
Student Academic Success
Special courses are offered to assist students in transitioning to the university. These courses focus on the necessary academic and life management skills to be successful in college and to prepare for lifelong learning and career development. To maximize their potential for success, all freshmen are encouraged to take the Introduction to the University course which is offered in several colleges. These courses focus on study skills, reading, writing, library usage, critical thinking, memory, note-taking, and test-taking skills. Time management, financial management, and values clarification are addressed. Many of these courses also focus on specific career information appropriate to students in a particular area. Our research shows students completing an Introduction to the University course persist at a rate of 12 percent higher than those who do not take such courses. Graduation rates are also higher for students who enroll in these courses. Other courses designed to assist students in succeeding in the university are Career Exploration, Returning Adult Seminar, and Introduction to Library Research.

Supplemental Instruction. WSU offers Supplemental instruction in traditionally “high risk” freshman- and sophomore-level courses that deal with unfamiliar or abstract concepts. Supplemental instruction leaders, who have had special training, lead study groups for students in the class. Research shows that students who participate in supplemental instruction average a half letter grade higher than students who do not participate. The academic adviser and the Schedule of Courses identify course sections that offer supplemental instruction. This program is partially funded from SGA fees.

Housing and Residence Life
On-campus housing is available for more than 1,000 students in Fairmount Towers, Brennan Hall, and Wheatshocker Apartments. Housing options include an honors hall, a fine arts floor, a health professions floor, smoke-free floors, co-ed 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 freshmen residency requirement are made for freshmen who are:
1. 21 years old or older;
2. Married;
3. Living with a parent, legal guardian, grandparent, uncle, or aunt in Sedgwick County; or
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 request an exemption.

Admission to Wichita State does not mean an automatic room reservation. Each student admitted will receive information concerning housing from Housing and Residence Life. Students need to complete a Housing and Residence Life room and board application/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 because space is limited.

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

For Housing and Residence Life fees, see pages 16–17 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 through Web registration on the Internet.

Prior to registering for classes, all students should contact their academic advisers to assure they are taking the appropriate classes. Early 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 the Web site at: wichita.edu/registrar.

Transcripts
A transcript is a certified copy of a student’s permanent academic record. It contains confidential information and cannot be furnished/released without the student’s signed, specific request.

Transcripts may be ordered in person at the registrar’s office or by written request received by mail or fax. Request forms and more detailed information are available at wichita.edu/registrar. A person’s undergraduate and graduate transcripts may be ordered separately. Official transcripts are $8 per copy, paid in advance. An additional $10 fee will be charged for all expedited service (same day) requests. Normal service is three to five business days. Additional fees for faxing a transcript or for mailing it by other than first-class postal rates also apply. All transcripts sent to or provided to the student are stamped “Issued to Student.” Some institutions will not accept transcripts that are “Issued to Student.”

When ordering a transcript by mail or fax, include your full name, student ID number, birth date, first and last semester and years enrolled at WSU, complete information as to where to mail the transcript, your signature, and credit card information, check, or money order, for the appropriate amount payable to WSU.

People requesting a transcript of their record must also provide proof of identity in the following manner: By mail or fax; a readable copy of a government-issued photo identification such as a driver’s license, passport, military ID, or a notarized signature on the written request. In person, show same kind of ID. Mail the written request to:
Attention: Transcripts
Office of the Registrar
Wichita State University
1845 Fairmount
Wichita, Kansas 67260-0058

Reminder: No one, including spouse or parent, can request or pick up someone else’s transcript without written authorization (and proof of identity) from that student.

If a person still owes the university money, or has not returned borrowed
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 43 of this Catalog.

Financial Assistance
Wichita State offers financial assistance through scholarships, federal and state supported programs, and employment.

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 Wilkie 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 attempt to meet the full needs of students requiring financial assistance.

Endowed scholarships are funded from earnings on donor endowment funds. The principal of these funds is never expended, therefore scholarship funding is available in perpetuity.

Current scholarship dollars are contributed annually by donors. Funds to support these scholarships come from annual gifts.

For information on how to apply for general scholarships, contact the Office of Financial Aid. To apply for departmental scholarships, contact the department directly and request an application. Once a scholarship application is received, students are considered for all scholarships for which they qualify.

Withdrawal and Financial Aid
A student’s eligibility for student financial aid is based on enrollment. The Higher Education Act 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 or 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 percent of the enrollment period, a student “earns” aid in direct proportion to the length of time he or she remains enrolled. A student who remains enrolled beyond the 60 percent 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
The tuition and fees listed are subject to change by the Kansas Board of Regents.

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

<table>
<thead>
<tr>
<th>Course</th>
<th>Resident</th>
<th>Nonresident</th>
</tr>
</thead>
<tbody>
<tr>
<td>Undergraduate tuition</td>
<td>$138.15</td>
<td>$394.05</td>
</tr>
</tbody>
</table>

Graduate tuition
Per credit hour | $192.05  | $559.45

Student fee—graduate and undergraduate
Per credit hour | $26.60   | $26.60

University registration fee—all students
Per semester    | $17.00   | $17.00

Facilities use fee—all students
Per credit hour | $3.60    | $3.60

Workshop and Off-Campus Fees
On-campus credit workshops cost $175.25 tuition and student fees, per credit hour. In addition, there is a $17 registration fee per semester and a facilities use fee of $3.60 per credit hour. A specific course fee of $158.15 (undergraduate) or $220.05 (graduate) per credit hour is assessed for off-campus regular enrollment and continue education credit courses or workshops. In addition, there will be a facilities use fee of $3.60 per credit hour. Non-credit workshops on campus include a facilities use fee ($5.00 for workshops of seven or fewer consecutive days and $10.00 for longer-term workshops). Non-credit workshops off campus will not include a facilities use fee unless students choose to have a vehicle on campus.

Departmental or College Fees
Special departmental fees are charged as summarized below:
1. Students are required to reimburse the university for the cost of (a) excess breakage and wastage of materials and (b) materials used in excess of those required for completion of coursework.
2. Engineering equipment and maintenance fee—$14 per credit hour for engineering courses
3. Geology Field School—actual cost per semester
4. HPS (Bowling) ............... $50/semester
5. HPS (Bowling) HPS 2018  ....... $10/class
6. HPS (horsemanship) ..... $135/semester
7. HPS (scuba diving) ......... $60/semester
8. HPS (pool/billiards) ........ $25/semester
9. HPS (ice skating) ............ $80/semester
10. HPS (safety and marksmanship) .................. $125/semester

Note: tuition and fees for 2014-2015 had not been established at the time of publication, but an increase is anticipated.

Facilities use fee will be assessed to all students at the rate of $3.60 per credit hour for the fall and spring semesters.
11. HPS (CPR and first aid certification) .................. $10 per certification
12. College of Health Professions
   Dental Hygiene fee/semester: $100/person
   Dental Hygiene fee/summer: $50/person
   Dental Hygiene board review course fee ................ approx. $125/person
   Nursing Testing fee
     Semester 5 ........................................ $105/person
     Semester 6 ........................................ $81/person
     Semester 7 ........................................ $81/person
     Semester 8 ........................................ $81/person
   Nursing graduate student fee: 702, 718, 786, 804, 808, 810, 822, 832, 834, 836, 844, 848, 849, 852, 858, .......................... $100/course
   Nursing—Accelerated baccalaureate nursing program:
     Resident, per person, per year: $20,000
     Non-resident, per person/year: $35,000
   Physician Assistant fee (semester) ....................... $250/person
   Public Health Science Application fee
     Domestic ..................................... $10/person
     International ................................... $15/person
     Reapplication ................................. $5/person
   Application fees:
     Dental hygiene ................................. $15/person
     Physical therapist assist ...................... $20/person
     Physical therapy .............................. $20/person
     Physician assistant .......................... $20/person
   Acceptance fees* Denta l hygiene .......................... $100/person
     Medical technology ............................ $100/person
     Nursing ........................................ $100/person
     Physical therapist assist ...................... $100/person
     Physical therapy .............................. $100/person
     Physician assistant .......................... $200/person
13. W. Frank Barton School of Business:
   Executive MBA (includes tuition, textbooks, materials, and administrative fees) ..................... $25,000/person
   Tech. & operations fee ........................... $15/credit hour
14. School of Music and Performing Arts (per course):
   MUSC: (general ed) 160–62, 310, 346, 493, 510, .................. $5.00
   MUSC: (majors) 113, 127–130, 227–230, 334–335, 561, 624, 792–783 .......................... $5.00
   MUSA: (applied vocal and instruction) 112, 712, 210, 400, and 700 (all level classes) .................. $5.00
   MUSE: 303–304, 322–324, 351, 606 .......................... $5.00
   DANC: 120, 220, 130, 150 .......................... $5.00
   THEA: 143 (general ed) .......................... $5.00
   MUSA: 113P–116P, 119P–120P ........................ $15.00
   MUSP: 300, 400, 873 .......................... $30.00
   THEA: 300, 344–345, 546, 647, 649 .......................... $30.00
   DANC: 201, 301, 401, 501, 210, 310, 410, 510 .......................... $45.00
   THEA: 254, 544 .............................. $45.00
15. School of Social Work field practicum fee:
   SCWK 602, 605, 720, 721, 822, 823 ........................ (per course) .................. $15.00
   *Acceptance fees are due within 30 days after admission to a program and are nonrefundable. They will be applied toward the first semester’s tuition of the program.

Free Music Courses
During the following academic year, students enrolled in the following ensembles will not be charged tuition and fees:
- Wind Ensemble: MUSP 210B, 410B, and 710B
- Orchestra: MUSP 211A, 411A, and 711A
- Band (Symphony): MUSP 211B, 411B, 711B, and 711C
- Band (Concert): MUSP 212B, 412B, and 712B
- University Singers: MUSP 211F, 411F, and 711F
- Jazz Arts Ensemble: MUSP. 211T, 412T, 412T, 711T, and 712T
- A Cappella Choir: MUSP 212F, 412F, and 712F
- Concert Chorale: MUSP 213F, 413F, and 713F

Special Fees, Deposits, and Waivers
Certain other fees are assessed as indicated below:
- Math placement test fee ................. $4/person
- Scholarship search fee:
  - Currently enrolled students: $10/person
  - Non-WSU student: $15/person
- Undergraduate admission application fee, initial enrollment: $30/person
- Graduate admission application or reapplication fee ............... $35/person
- Graduate fee to process applications for admis- sion to a non-degree status: $35/person
- Graduate fee to process applications for degree/hooding ceremony: $15/person
- Graduate fee for thesis: $40/person
- Graduate School dissertation fee: $40/person
- Media course fee: $20/credit hour
- English composition placement fee: $4/person
- Installation payment admin. fee: $30/person
- Diploma replacement fee: $30/copy
- International undergraduate student application fee: $50/person
- International undergraduate student reapplication fee: $25/person
- International graduate student application and reapplication fee: $50/person
- Transcript/certification fee: $8/copy
- Notarized/certified true copies: $2/per page
- Copies of public documents

1. Public records in print:
   a. Access: staff time necessary to obtain records; no charge for requesting less than 30 minutes of staff time to obtain ..................... $20/hour
   b. Copying: $0.10/page

2. Public records kept in computer files:
   a. Access to public record(s) stored on computer files that can be accomplished using retrieval software already available and without software modification(s); staff time necessary to obtain records; no charge for request requiring less than 30 minutes of staff time to obtain ..................... $50/hour
   b. Access to public record(s) stored on computer files that requires custom programming time to retrieve and process: staff time necessary to provide custom programming and retrieve and process the requested information ..................... $75/hour

Library fines and lost materials—cost per fine schedule or cost of replacement of material plus a processing fee
- Returned check fee: $30/check
- Retesting and credit by examination fees:
  - LAS Cr. for Life Experience fee: $15/credit hr
  - credit by examination fee: $15/credit hour
  - retroactive credit fee: $15/credit hour
  - Make-up examination fee: $8/test
- Musical instrument use fee: $15/semester

Art supplies:
- ARTH, ARTG 316, 334: $12/course
- ARTE 150, 310, 311, 515, 705/ARTG 150, 335, 339, 434, 435, 437, 483, 493/ARTS 105, 150, 495, 559, 565: $1hr., $800: $1 hr., 395 .......................... $27/course
- ARTS 370, 371, 372, 373, 374, 380, 381, 570, 577, 572, 574, 575, 576, 578, 580, 585, 870, 876, 878, 879, 880, 888, 889 .......................... $72/course
- Same day service fee at the registrar’s office .......................... $10/document

Career services:
- Counseling:
  - Current WSU students: no charge
  - New graduates (up to one year following graduation): no charge
  - WSU faculty or staff: no charge
  - Family of WSU faculty/staff: no charge
  - Current WSU students: no charge
  - Current WSU students: no charge
  - Alumni: no charge
  - Community people: no charge
  - Credential mailings: $5/mailing

Testing:
- Campbell Interest: Skill Survey: $15/studnt.
- Strong Interest Inventory: $15/student
- Strong Interest Inventory: $20/student
- Self-Directed Search: $15/student
- VISTA Card Sort: no charge
- StrengthsFinder online access code: $20
- StrengthsQuest Book (contains online access code): $35
Facilities Use Fee
Formerly student parking fee. Parking fees and fines are assessed as authorized by the Board of Regents and in accordance with Article 4, Section 884-1, et. seq. of the Kansas Administrative Regulations.

Auditing Course Fees
Tuition and fees per credit hour for courses and workshops audited are the same as for courses taken for credit.

Contracts and Compensatory Charges
The schedule 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 the 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 (i.e., 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 users of Student Health Services. The schedule does not limit the charges which the entire cost, including faculty, is financed by governmental or private agencies except that such arrangements may not provide for lesser charges. Tuition or other charges to more nearly cover the actual costs of instruction are specifically authorized.

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.

Rates are for fiscal year 2009. Rates may be changed by the Kansas Board of Regents.

Financial Assistance/Room and Board.

1. 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.
3. Returning residents and new sophomores through graduate students in Fairmount Towers may choose any of the plans listed above.
4. All meal plans include $200 or $300 Shocker Dollars or “max” meal money ($100 or $150 per semester).
5. All meals are served in the Fairmount Towers Café.
6. Shocker Dollars may be used at the Fairmount Towers Café, Blimpie’s, and food venues in the Rhatigan Student Center such as Copperfield’s and Fast Break.
7. Shocker Dollars or “max” meal money expire on the last day of the contract period.
8. Fairmount Towers is scheduled to be used for summer school housing and camps/conferences.
9. Fairmount Towers is substance free (no alcohol, smoking, tobacco products, or other substances).
10. A fine arts specialty housing floor is offered in Fairmount Towers.
11. An honors specialty housing floor is offered in Fairmount Towers.
12. A health professions specialty housing floor is offered in Fairmount Towers.
13. An extended quiet hours floor is offered in Fairmount Towers.
14. Students who cancel their contract before July 1 (December 1 for spring semester only contracts) receive a 100 percent refund of their prepayment. Students who cancel their contract on or after July 1 forfeit their prepayment. Students who cancel their contract after occupancy may be assessed a cancellation fee of $250 plus 50 percent of the remaining balance of the contract. The cancellation fee is subject to appeal. Refer to the Housing and Residence Life room and board application/contract for specific contract cancellation terms.

Fairmount Towers

<table>
<thead>
<tr>
<th>Plan Type</th>
<th>Double</th>
<th>Single</th>
</tr>
</thead>
<tbody>
<tr>
<td>19-max w/ 200 Shocker</td>
<td>$6,060</td>
<td>$7,110</td>
</tr>
<tr>
<td>15-max w/ 200 Shocker</td>
<td>$5,950</td>
<td>$7,000</td>
</tr>
<tr>
<td>10-max w/ 200 Shocker</td>
<td>$5,800</td>
<td>$6,850</td>
</tr>
<tr>
<td>5-max w/ 300 Shocker</td>
<td>$5,900</td>
<td>$6,950</td>
</tr>
</tbody>
</table>

1. 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.
3. Returning residents and new sophomores through graduate students in Fairmount Towers may choose any of the plans listed above.
4. All meal plans include $200 or $300 Shocker Dollars or “max” meal money ($100 or $150 per semester).
5. All meals are served in the Fairmount Towers Café.
6. Shocker Dollars may be used at the Fairmount Towers Café, Blimpie’s, and food venues in the Rhatigan Student Center such as Copperfield’s and Fast Break.
7. Shocker Dollars or “max” meal money expire on the last day of the contract period.
8. Fairmount Towers is scheduled to be used for summer school housing and camps/conferences.
9. Fairmount Towers is substance free (no alcohol, smoking, tobacco products, or other substances).
10. A fine arts specialty housing floor is offered in Fairmount Towers.
11. An honors specialty housing floor is offered in Fairmount Towers.
12. A health professions specialty housing floor is offered in Fairmount Towers.
13. An extended quiet hours floor is offered in Fairmount Towers.
14. Students who cancel their contract before July 1 (December 1 for spring semester only contracts) receive a 100 percent refund of their prepayment. Students who cancel their contract on or after July 1 forfeit their prepayment. Students who cancel their contract after occupancy may be assessed a cancellation fee of $250 plus 50 percent of the remaining balance of the contract. The cancellation fee is subject to appeal. Refer to the Housing and Residence Life room and board application/contract for specific contract cancellation terms.

Brennan Halls II & III

<table>
<thead>
<tr>
<th>Plan Type</th>
<th>Double</th>
<th>Single</th>
</tr>
</thead>
<tbody>
<tr>
<td>19-max w/ 200 Shocker</td>
<td>$5,350</td>
<td>$6,490</td>
</tr>
<tr>
<td>15-max w/ 200 Shocker</td>
<td>$5,450</td>
<td>$6,590</td>
</tr>
<tr>
<td>10-max w/ 200 Shocker</td>
<td>$5,540</td>
<td>$6,690</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 meal plans listed above.
3. All meal plans include $200 Shocker Dollars or “max” meal money ($100 per semester).
4. All meals are served in the Fairmount Towers Café.
5. Shocker Dollars may be used at the Fairmount Towers Café, Blimpie’s, and food venues in the Rhatigan Student Center such as Copperfield’s and Fast Break.

6. Shocker Dollars or “max” meal money expire on the last day of the contract period.

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

8. Students who cancel their contract before July 1 (December 1 for spring semester only contracts) receive a 100 percent refund of their prepayment. Students who cancel their contract on or after July 1 forfeit their prepayment. Students who cancel their contract after occupancy may be assessed a cancellation fee of $250 plus 50 percent of the remaining balance of the contract. The cancellation fee is subject to appeal. Refer to the Housing and Residence Life room and board application/contract for specific contract cancellation terms.

### Wheatshocker Apartments

<table>
<thead>
<tr>
<th>Two bedrms, one bath (5)</th>
<th>Monthly Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>one person in each room</td>
<td>$545</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Two bedrms, two bath (4)</th>
<th>Monthly Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>two person share large room</td>
<td>$445</td>
</tr>
<tr>
<td>one person in small room as single</td>
<td>$545</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Four bedrms, one bath (3)</th>
<th>Monthly Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>1/2 suite (one apartment)</td>
<td>$445</td>
</tr>
<tr>
<td>1/4 suite</td>
<td>$285</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Large corner two bedroom (2)</th>
<th>Monthly Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>large 1/2 suite—one person</td>
<td>$545</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Studio, one bedroom, one bath (1)</th>
<th>Monthly Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>one person</td>
<td>$545</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Accessible one bedroom, one bath</th>
<th>Monthly Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>two persons in double room</td>
<td>$445</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Large studio, accessible one bedroom, one bath</th>
<th>Monthly Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>one bath — one person</td>
<td>$630</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. Wheatshocker residents may select any board plan offered—with a minimum requirement of $500 Shocker Dollars ($250/semester).

3. Each space in Wheatshocker is rented out as part of a complete unit. The housing office will match roommates and consolidate when necessary.

4. Studio apartments are reserved for married or family housing.

5. Furnished (layout 3) 1/4 units are $35 extra per month, and are only available in this configuration.

6. Students who cancel their contract before July 1 (December 1 for spring semester only contracts) receive a 100 percent refund of their prepayment. Students who cancel their contract on or after July 1 forfeit their prepayment. Students who cancel their contract after occupancy may be assessed a cancellation fee of $250 plus 50 percent of the remaining balance of the contract. The cancellation fee is subject to appeal. Refer to the Housing and Residence Life room and board application/contract for specific contract cancellation terms.

### Summer Session Housing

The listed rates do not include a $50 non-refundable application fee for non-continuous contractors.

#### Fairmount Towers

<table>
<thead>
<tr>
<th></th>
<th>Double</th>
<th>Single</th>
</tr>
</thead>
<tbody>
<tr>
<td>Presession</td>
<td>$237</td>
<td>$307</td>
</tr>
<tr>
<td>Four week</td>
<td>$548</td>
<td>$688</td>
</tr>
<tr>
<td>Pre- + four week session</td>
<td>$785</td>
<td>$995</td>
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<tr>
<td>Eight week</td>
<td>$1,096</td>
<td>$1,376</td>
</tr>
<tr>
<td>Pre- + eight week session</td>
<td>$1,305</td>
<td>$1,655</td>
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</tbody>
</table>

1. Students pay a $100 prepayment upon signing a contract. The prepayment is part of the contract amount, guarantees the reservation of the room, and is included in the above rates.

2. Fairmount Towers is scheduled to be used for summer school housing and camps/conferences.

3. All meals are served in the Fairmount Towers Café.

4. Presession residents in Fairmount Towers are required to have $55 Shocker Dollars. All other summer residents in Fairmount Towers are required to have a 10 meal plan with no Shocker Dollars.

5. Shocker Dollars expire at the end of the contract period.

6. Rates include all utilities, basic cable television, Ethernet and wireless 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 and non-smoking.

#### Brennan Halls II & III

<table>
<thead>
<tr>
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<tr>
<td>Presession w/ $55</td>
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<tr>
<td>Shocker Dollars, S</td>
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<td>$307</td>
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<tr>
<td>Presession w/ $55</td>
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<tr>
<td>Shocker Dollars, L</td>
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<tr>
<td>Four week session, S</td>
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<tr>
<td>Four week session, L</td>
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<td>$604</td>
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</table>

1. Students pay a $100 prepayment upon signing a contract. The prepayment is part of the contract amount, guarantees the reservation of the room, and is included in the above rates.

2. Presession residents in Brennan Halls are required to have $55 Shocker Dollars. All other summer residents in Brennan Halls are required to have $100 Shocker Dollars.

3. Shocker Dollars expire at the end of the contract period.

4. Rates include all utilities, basic cable television, Ethernet and wireless 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 and non-smoking.

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

### Payment

Tuition and fees are required to be paid in full, including any lab fees, financial aid or loans a student may have, before enrollment is complete and the student is eligible to attend classes.

An installment payment plan is available at the time of enrollment to assist students in making tuition payments. Any student who does not have financial aid from other sources sufficient to pay tuition and fees is eligible if the student has paid all previous obligations to the university. The installment plan requires a $130 non-refundable down payment which includes a $30 administrative fee making the installment plan interest-free. Installment plans must be repaid in two or three equal installments according to the deadlines for a given semester.

### Assessment and Collection

The director of financial operations and business technology is responsible for the assessment and collection of fees. The associate director, a college associate dean, a representative of the affirmative action officer, and representatives of the vice president for campus life and
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 class is suited for them. Students who register late or fail to attend the first class period in short-term classes will not be eligible for 100 percent refunds according to the policy. For classes that begin at times other than the regular term semester, the “first class day” refers to the first day of the part of term as defined by the department and the registrar’s office; thereafter, the “day” refers to the business day. 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 percent refund for the class, the student must provide documentation that he or she did not attend more than four hours of the class.

No other than the Office of Financial Operations and Business Technology 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 at the Office of Financial Operations and Business Technology, 201 Jardine Hall. The petition must be filed with the appropriate documentation. A petition for tuition refund beyond the policy must be filed at the Office of Financial Operations and Business Technology within the semester 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 to be subject to a different refund policy. Contact the Office of Financial Operations and Business Technology 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 Teacher of the Year
Kansas Teacher of the Year recipient is allowed to enroll tuition free in up to 9 credit hours annually provided the individual is actively pursuing a teaching career in Kansas.

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 all Wichita State University benefits-eligible employees who are not carrying full-time class loads (undergraduate 12 hours; graduate 9 hours); adjunct faculty members; and lecturers. These university employees must have an appointment for the semester in which the student fee is applicable. Student fees shall be waived for currently enrolled students who are working in their cooperative education job or who are performing a required clinical rotation or internship off the WSU campus (defined as the City of Wichita, its contiguous industrial sites and the South and West Campuses) 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 with audit status (non-credit) in eligible academic credit courses—in which space is available and for which they have the prerequisites—without paying tuition and student fees. Facilities use fees will be assessed at
General Education Program Requirements • Worksheet

Tier 1. Basic Skills: four courses to be completed in the first 48 hours of enrollment with a grade of C or better*

The basic skills courses are intended to ensure that students have fundamental skills in the modes of organizing, analyzing and presenting information that will be required in the rest of their college studies. The other general education courses have components in them that address these skills to ensure that students continue to build on what they learn in the basic skills courses.

<table>
<thead>
<tr>
<th>English 100 or 101</th>
<th>English 102</th>
<th>Communication 111</th>
<th>Math 111, 112 or 131**</th>
</tr>
</thead>
</table>

All basic skills requirements in the general education program must be met by undergraduates enrolled in a Wichita State University bachelor’s degree program within the first 48 hours of enrollment 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 to complete the basic skills requirement 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.

Tier 2. Introductory Courses in the Disciplines: seven courses

The introductory courses introduce students to the breadth of human knowledge and inquiry. These courses also provide opportunities to practice skills learned in the Tier 1 courses.

<table>
<thead>
<tr>
<th>Fine Arts</th>
<th>Art History</th>
<th>Dance</th>
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<tbody>
<tr>
<td></td>
<td>Musicology/Composition</td>
<td>Theater</td>
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<table>
<thead>
<tr>
<th>Humanities</th>
<th>Communication***</th>
<th>Modern and Classical</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>English***</td>
<td>Languages and Literatures</td>
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<td></td>
<td>History</td>
<td>Philosophy</td>
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<td></td>
<td>Linguistics</td>
<td>Religion</td>
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<td></td>
<td></td>
<td>Women's Studies</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Social/Behavioral Sciences</th>
<th>Anthropology</th>
<th>Geography</th>
</tr>
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<tbody>
<tr>
<td></td>
<td>Criminal Justice</td>
<td>Political Science</td>
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<td></td>
<td>Economics</td>
<td>Psychology</td>
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<tr>
<td></td>
<td>Entrepreneurship</td>
<td>Sociology</td>
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<td></td>
<td>Ethnic Studies</td>
<td></td>
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</table>

<table>
<thead>
<tr>
<th>Mathematics and Natural Sciences</th>
<th>Anthropology</th>
<th>Geology</th>
</tr>
</thead>
<tbody>
<tr>
<td>(One class must be from biological sciences, chemistry, geology or physics)</td>
<td>Biological Sciences</td>
<td>Mathematics/Statistics***</td>
</tr>
<tr>
<td></td>
<td>Chemistry</td>
<td>Physics</td>
</tr>
<tr>
<td></td>
<td>Computer Science</td>
<td>Public Health</td>
</tr>
</tbody>
</table>

Tier 3. Further Study in the Disciplines: at least 1 course and at most 2 courses+

Further study courses are more focused studies in the various disciplines outside students’ majors that allow them to follow up on interests developed in the introductory courses. They have as a prerequisite one of the introductory courses.

<table>
<thead>
<tr>
<th>Fine Arts</th>
<th>Humanities</th>
<th>Social and Behavioral Sciences</th>
<th>Mathematics and Natural Sciences</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Fine Arts</th>
<th>Humanities</th>
<th>Social and Behavioral Sciences</th>
<th>Mathematics and Natural Sciences</th>
</tr>
</thead>
</table>

Tier 4. Issues and Perspectives: at least 1 course and at most 2 courses+

These courses address broad issues and may take a multidisciplinary or interdisciplinary approach to them. These courses are not allocated among academic divisions; students merely choose one I&P course from a single list.

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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 at least one I&P course and at least one further study course for a total of three courses between I&P and further study; the three courses must be distributed over at least two different divisions.
Additional College/School General Education Requirements

Academic advising is an important part of a student’s undergraduate experience. Students should meet with an adviser in the college of their major before registering for classes each semester. These advisers will help students understand the undergraduate experience and assist in selecting classes that meet the students’ 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. Teacher education students must take STAT 370 as well. MATH 111 is a prerequisite for STAT 370.

Engineering students are required to take MATH 242, PHYS 313, 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 have 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)
- HIST 131, 132 (humanities) or POLS 121 (social science)
- One biology course and one physical sciences 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 adviser in the Liberal Arts and Sciences 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 caret (>) prefix in the WSU Undergraduate Catalog. General education courses offered in a given semester are listed in the Schedule of Courses.

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 also provides the opportunity for all students to grow in knowledge and appreciation of the rich variety of human achievements in the arts, humanities, and sciences.

Goals of General Education
The goals of the Wichita State University general education program are as follows:
- to study and apply basic mathematical principles;
- to study and apply principles of written and oral communication;
- to study and apply basic library research skills including basic assessment of various kinds of sources;
- to study and gain a basic understanding of the natural sciences, social and behavioral sciences, humanities and fine arts; and
- to study human diversity on a global basis and its implications for society.

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 and Articulation Agreement of the Kansas Public Community Colleges and State Universities are considered to have met the requirements of the 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. (This restriction applies only to one major. For students with a double major, courses in the second major could count in fulfilling their requirements.)

General education courses must be at least 3 credit hours and from the approved general education course list. The list below is current as of this printing. For more information, visit the WSU
homepage at wichita.edu, then click on “Browse A–Z” and choose G for the general education Web site.

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

**Fine Arts Courses**
- ARTH 121 Survey of Art History I
- ARTH 122 Survey of Art History II
- DANC 140 Art of the Dance
- HNRS 104 Seminar I: Fine Arts
- HNRS 150 Seminar II: Fine Arts
- MUSC 160 The Heritage of Western Music
- MUSC 162 World Music
- THEA 143 The Art of the Theater
- THEA 200 Experience the Performing Arts
- THEA 260 History of Musical Theater

**Humanities Courses**
- COMM 190 Introduction to Human Communication
- ENGL 230 Exploring Literature (P)
- ENGL 232 Themes in American Lit (P)
- FREN 210 Intermediate French (P)
- GERM 220 Continuing German (P)
- GREK 223 Intermediate Greek (P)
- HIST 100 The Human Adventure: World Civilization Since 1500
- HIST 101 Western Civilization to 1648
- HIST 102 Western Civilization Since 1648
- HIST 131 Hist. of the USA: Colonial to 1865
- HIST 132 History of the USA Since 1865
- HNRS 105 Seminar I: Humanities
- HNRS 151 Seminar II: Humanities
- LATN 223 Intermediate Latin (P)
- LING 151 The Nature of Language
- PHIL 100 The Meaning of Philosophy
- PHIL 125 Introductory Logic
- PHIL 144 Moral Issues
- REL 110 Old Testament
- REL 115 New Testament
- RUS 210 Intermediate Russian (P)
- SPAN 210 Intermediate Spanish (P)
- WOMS 190 Women in Popular Culture
- WOMS 287 Women in Society: Social Issues

**Social and Behavioral Sciences Courses**
- ANTH 100 Anthropology of Am. Culture
- ANTH 102 Cultural Anthropology
- ANTH 103 Introduction to Archaeology
- CJ 191 Introduction to Criminal Justice
- ECON 201 Principles of Macroeconomics
- ETHS 100 Introduction to Ethnic Studies
- ETHS 210 Fundamentals of Cross-Cultural Communication
- GEOG 125 Principles of Human Geography
- GEOG 210 Intro. to World Geography
- HNRS 106 Seminar I: Social and Behavioral Sciences
- HNRS 152 Seminar II: Social and Behavioral Sciences

**Mathematics and Natural Sciences Courses**
- ANTH 101 Biological Anthropology
- BIOL 103 Microbes and You
- BIOL 106 The Human Organism
- BIOL 107 The Human Organism Laboratory
- BIOL 210 General Biology I (P)
- CHEM 101 The Science of Chemistry
- CHEM 103 Introductory Chemistry
- CHEM 211 General Chemistry I (P)
- CS 210 Intro. to Computer Science (P)
- GEO 102 Earth Science and the Environment
- GEO 111 General Geology
- HNRS 107 Seminar I: Mathematics and Natural Sciences
- HNRS 153 Seminar II: Mathematics and Natural Sciences
- MATH 144 Business Calculus (P)
- MATH 242 Calculus I (P)
- PC 105 Introduction to Computers and Applications
- PHYS 111 Introductory Physics (P)
- PHYS 131 Physics for Health Sciences (P)
- PHYS 195 Intro. to Modern Astronomy
- PHYS 213 General College Physics I
- PHYS 303 Physics for Engineers I
- PHYS 313 Phys. for Scientists I (w/calculus) (P)
- PHYS 315 University Physics Lab I (P)
- STAT 230 Elementary Statistics (P)

**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**
- ARTH 318 Greek Art and Architecture (P)
- ARTH 319 Roman Art and Architecture (P)
- ARTH 323 Medieval Art
- ARTH 328 Italian Renaissance (P)
- ARTH 343 18th & 19th Cent. Art (P)
- ARTH 346 20th Century Art Before 1945 (P)
- ARTH 347 Art Since 1945 (P)
- DANC 225 Survey of Dance History
- DANC 325 Dance History: 20th and 21st Centuries
- FA 301 An Intro. to Entrepreneurship in the Fine Arts
- FA 310 Arts and Technology
- MUSC 161 Music Through the Ages
- MUSC 346 Styles of Jazz
- MUSC 493 American Popular Music
- THEA 221 Oral Interpretation
- THEA 241 Improvisation and Theatre Games
- THEA 243 Acting I
- THEA 450 Contemporary Theater & Drama (P)
- THEA 516 Playwriting I (P)
- THEA 517 Playwriting II (P)
- THEA 623 Development of the Theater I
- THEA 624 Development of the Theater II

**Humanities Courses**
- COMM 122 Oral Interpretation
- COMM 302 Interpersonal Communication
- COMM 311 Persuasion (P)
- COMM 312 Nonverbal Communication (P)
- COMM 333 Argumentation and Advocacy
- COMM 335 International and Intercultural Communication
- COMM 430 Communication Research and Inquiry (P)
- COMM 535 Communication Analysis and Criticism (P)
- ENGL 315 Introduction to English Linguistics
- ENGL 320 The Nature of Drama (P)
- ENGL 322 Origins of Western Literature (P)
- ENGL 323 World Literature (P)
- ENGL 330 The Nature of Fiction (P)
- ENGL 340 Major Plays of Shakespeare (P)
- ENGL 345 Studies in Comparative Literature (P)
- ENGL 360 Major British Writers I (P)
- ENGL 361 Major British Writers II (P)
- ENGL 362 Major American Writers I (P)
- ENGL 363 Major American Writers II (P)
- ENGL 365 African-American Literature (P)
- ENGL 375 Popular Literature (P)
- FREN 223 Intermediate French Readings I (P)
- FREN 300 Intermediate French Readings II (P)
- FREN 540 French Literature in English Translation (P)
- FREN 541 French Literature of Africa and the Caribbean in English Translation (P)
- GERM 223 Intermediate German I (P)
- GERM 300 Interm. German Readings (P)
- GREK 224 Intermediate Greek (P)
- HIST 306 The US Century: Decades of Change
- HIST 311 Colonial Latin America
- HIST 312 Modern Latin America
- HIST 314 English History
- HIST 317 The Holocaust
- HIST 320 Russian History Survey
- HIST 332 Ethnic America, ca. 1500–1924
- HIST 333 Ethnic America in the 20th Century
- HIST 340 World War II
- HIST 357 Women in the Ancient World
- HIST 359 The Greek World
- HIST 362 The Roman World
- HIST 501 The American Colonies
- HIST 502 The American Revolution and Early Republic
- HIST 503 Age of Jefferson and Jackson
- HIST 504 Civil War
- HIST 506 The Vietnam Conflict
<table>
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<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>ANTH 388</td>
<td>Cognitive Anthropology</td>
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<td>ANTH 506</td>
<td>Peoples of the Pacific</td>
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<tr>
<td>ANTH 508</td>
<td>Ancient Civilizations of the Americas (P)</td>
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<td>ANTH 511</td>
<td>The Indians of North America (P)</td>
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<td>ANTH 515</td>
<td>China</td>
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<td>ANTH 516</td>
<td>Japan: People and Culture</td>
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<td>ANTH 522</td>
<td>Art and Culture (P)</td>
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<td>ANTH 528</td>
<td>Medical Anthropology (P)</td>
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<td>ANTH 611</td>
<td>Southwestern Archaeology (P)</td>
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<tr>
<td>ANTH 613</td>
<td>Archaeology of the Great Plains (P)</td>
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<td>CJ 351</td>
<td>The Victim in Criminal Justice (P)</td>
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<tr>
<td>CJ 355</td>
<td>Special Populations in the Criminal Justice System (P)</td>
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<tr>
<td>CJ 394</td>
<td>Courts and Judicial Systems (P)</td>
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<tr>
<td>CJ 453</td>
<td>Crime Prevention (P)</td>
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<td>CJ 513</td>
<td>Violent Crime (P)</td>
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<td>Criminal Justice &amp; Crime in Film</td>
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<td>CJ 593</td>
<td>Criminal Causation and Criminal Justice Policy (P)</td>
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<td>CI 652</td>
<td>Juvenile Justice and Social Policy (P)</td>
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<td>ECON 202</td>
<td>Principles of Microeconomics (P)</td>
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<td>ETHS 330</td>
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<td>ETHS 331</td>
<td>The Black Family (P)</td>
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<td>ETHS 332</td>
<td>The Native American (P)</td>
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<td>ETHS 333</td>
<td>Issues in the Chicano Community (P)</td>
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<td>ETHS 334</td>
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<td>ETHS 360</td>
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<td>ETHS 361</td>
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<td>GEOG 530</td>
<td>Geography of Latin America</td>
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<td>GEOG 542</td>
<td>Geography of Europe</td>
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<td>GERO 512</td>
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<td>Latin American Politics (P)</td>
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<td>The Presidency</td>
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<td>POLS 316</td>
<td>The Congress</td>
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<td>POLS 336</td>
<td>International Organizations</td>
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<td>POLS 337</td>
<td>Causes of War and Peace</td>
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<td>POLS 345</td>
<td>Classical Medieval Political Theory</td>
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<td>POLS 358</td>
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<td>POLS 380</td>
<td>Campaigns and Elections</td>
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<td>Special Topics in Political Science</td>
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<td>POLS 444</td>
<td>Modern Political Theory</td>
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<td>POLS 524</td>
<td>Politics of Modern China</td>
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<td>POLS 533</td>
<td>U.S. Foreign Policy</td>
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<td>POLS 534</td>
<td>Comparative Foreign Policy</td>
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<td>POLS 551</td>
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<td>Civil Liberties</td>
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<td>Biological Psychology (P)</td>
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<td>PSY 321</td>
<td>Psychology of Learning (P)</td>
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<td>Cognitive Psychology (P)</td>
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<tr>
<td>PSY 325</td>
<td>Developmental Psychology (P)</td>
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<tr>
<td>PSY 404</td>
<td>Psychology of Aging (P)</td>
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<tr>
<td>PSY 406</td>
<td>Intro. to Community Psy. (P)</td>
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<tr>
<td>PSY 407</td>
<td>Industrial Psychology (P)</td>
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<tr>
<td>PSY 409</td>
<td>Psychology of Perception (P)</td>
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<tr>
<td>PSY 410</td>
<td>Alcohol Use and Abuse (P)</td>
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<tr>
<td>PSY 412</td>
<td>Psychology of Motivation (P)</td>
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<tr>
<td>PSY 414</td>
<td>Child Psychology (P)</td>
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<tr>
<td>PSY 516</td>
<td>Drugs and Human Behavior (P)</td>
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<tr>
<td>SOC 320</td>
<td>Contemporary Social Problems (P)</td>
</tr>
<tr>
<td>SOC 322</td>
<td>Deviant Behavior (P)</td>
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<td>SOC 325</td>
<td>Parenting</td>
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<tr>
<td>SOC 330</td>
<td>Social Inequality (P)</td>
</tr>
<tr>
<td>SOC 337</td>
<td>Young Women's Health (P)</td>
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<tr>
<td>SOC 338</td>
<td>Health and Lifestyle (P)</td>
</tr>
<tr>
<td>SOC 350</td>
<td>Social Interaction (P)</td>
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<tr>
<td>SOC 513</td>
<td>Sociology of Aging (P)</td>
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<td>SOC 515</td>
<td>Family Diversity (P)</td>
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<td>SOC 516</td>
<td>Sociology of Gender Roles (P)</td>
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<tr>
<td>SOC 534</td>
<td>Urban Sociology (P)</td>
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<tr>
<td>SOC 539</td>
<td>Juvenile Delinquency (P)</td>
</tr>
<tr>
<td>WOLS 306</td>
<td>Introduction to Gender Studies</td>
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**Mathematics and Natural Sciences Courses**

<table>
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<tr>
<th>Course Code</th>
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<tr>
<td>ANTH 356</td>
<td>Human Variability and Adaptation (P)</td>
</tr>
<tr>
<td>BIOL 309</td>
<td>Foundations of Human Heredity</td>
</tr>
<tr>
<td>CHEM 212</td>
<td>General Chemistry II (P)</td>
</tr>
<tr>
<td>CHEM 514</td>
<td>Inorganic Chemistry (P)</td>
</tr>
<tr>
<td>CHEM 523</td>
<td>Analytical Chemistry (P)</td>
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<tr>
<td>CHEM 531</td>
<td>Organic Chemistry I (P)</td>
</tr>
<tr>
<td>CHEM 546</td>
<td>Physical Chemistry (P)</td>
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<tr>
<td>CHEM 661</td>
<td>Introductory Biochemistry (P)</td>
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<tr>
<td>CS 300</td>
<td>Data Structures &amp; Algorithm. I (P)</td>
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<tr>
<td>GEOG 235</td>
<td>Meteorology (P)</td>
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<td>GEOG 235</td>
<td>Meteorology (P)</td>
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<tr>
<td>GEOG 302</td>
<td>Earth and Space Sciences</td>
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<tr>
<td>GEOG 310</td>
<td>Oceanography</td>
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<tr>
<td>GEOG 312</td>
<td>Historical Geology (P)</td>
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<tr>
<td>GEOG 570</td>
<td>Biogeology (P)</td>
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<tr>
<td>GEOG 574</td>
<td>Spec. Studies in Paleontology (P)</td>
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<tr>
<td>MATH 243</td>
<td>Calculus II (P)</td>
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<tr>
<td>PHYS 214</td>
<td>General College Physics II (P)</td>
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<tr>
<td>PHYS 304</td>
<td>Physics for Engineers II (p)</td>
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<tr>
<td>PHYS 314</td>
<td>Physics for Scientists II (P)</td>
</tr>
<tr>
<td>PHYS 316</td>
<td>University Physics Lab II</td>
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<tr>
<td>PHYS 395</td>
<td>Solar System Astronomy</td>
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<tr>
<td>STAT 460</td>
<td>Elementary Probability and Mathematical Statistics (P)</td>
</tr>
<tr>
<td>STAT 571</td>
<td>Statistical Methods I (P)</td>
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<tr>
<td>STAT 572</td>
<td>Statistical Methods II (P)</td>
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<tr>
<td>STAT 576</td>
<td>Applied Nonparametric Statistical Methods (P)</td>
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</tbody>
</table>

**Issues and Perspectives Courses**

These courses address broad issues and may take a multidisciplinary or interdisciplinary approach to them. Hence they are not allocated among academic divisions.

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>ARTE 303</td>
<td>Stimulating Creative Behavior</td>
</tr>
<tr>
<td>ARTH 349</td>
<td>Architecture</td>
</tr>
<tr>
<td>BIOL 310</td>
<td>Human Reproduction (P)</td>
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<tr>
<td>BIOL 370</td>
<td>Intro. Environmental Science (P)</td>
</tr>
<tr>
<td>ENGL 343</td>
<td>Great Plains Literature (P)</td>
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<tr>
<td>GEOL 300</td>
<td>Energy, Resources and Environment (P)</td>
</tr>
<tr>
<td>GERM 341</td>
<td>German in the European Context</td>
</tr>
<tr>
<td>HIST 308</td>
<td>A History of Lost Civilizations</td>
</tr>
<tr>
<td>HIST 330</td>
<td>Americans: Conflict &amp; Consensus</td>
</tr>
<tr>
<td>HMCD 308</td>
<td>Leadership in Self and Society</td>
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</tbody>
</table>
The 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. Academically, the program offers special courses and seminars open only to program participants, honors tracks in many majors, and opportunities for independent study. It also sponsors enrichment activities such as field trips, lectures, and participation in regional and national honors organizations, and provides various support services including advising, access to special facilities, and opportunities for fellowship and public service.

The honors curriculum begins with an honors track in the university’s general education program and concludes with honors tracks in the majors. The curriculum features small classes, select faculty, and an approach to learning that emphasizes participatory over passive learning. Support services include general advising, advising for freshman focused on their long-term academic plans, a student lounge and computer lab, the honors floor at Fairmount Towers (in conjunction with Housing and Residence Life), and the social and recreational activities of the Lindquist Honors Society. The program is also responsible for advising and assisting candidates for national fellowship competitions such as the Rhodes, Truman, Goldwater, and Marshall.

Broad program policy is established by the Faculty Honors Committee and is subject to approval by the provost and vice president for academic affairs and research.

Generally, freshmen are admitted to the program if their composite score on the Enhanced American College Test (ACT) is 26 or higher with at least a 3.250 GPA, or if their high school grade point average is 3.500 or higher as certified by the university. Transfer and continuing students are eligible for admission if they achieve 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 application.

Students in the Emory Lindquist Honors Program are expected to remain in good standing by maintaining at least a 3.250 grade point average, 3.000 grade point average in honors coursework, 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 towards completion of the honors curriculum is defined as follows:

- complete one seminar within the first 15 credit hours at WSU;
- complete two seminars within the first 30 credit hours at WSU; and
- complete three seminars within the first 45 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; and
- 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.

Students completing the honors track in their academic major successfully earn departmental honors.

**Honors Curriculum**

The honors curriculum offers academic opportunities throughout a student’s university career. It includes an honors track in general education, and an honors track in a student’s major.

**Freshman/Sophomore Seminars.** In their first semester at the university, honors students substitute honors seminars for three of their required general education distribution courses. Enrollment in seminars is generally limited to 15 students.

Seminars are offered in fine arts, humanities, social and behavioral sciences, and natural sciences 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 involves completion of the honors track in a student's major. 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 12 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 3.500 or higher for work in the honors track. A student who completes the honors track with a lower GPA, but satisfies the honors program GPA requirement of at least a 3.250 GPA both 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 (3–5). 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.

Upper-Division Courses

HNRS 310. Honors Tutorial (1). Repeatable to a maximum of 3 hours of credit.

HNRS 400. Honors Seminar (1–4). Cross-listed as PHIL 400.

HNRS 410. Independent Study (1–4). Repeatable to a maximum of 6 hours of credit.

HNRS 420. Seminar in Humanities (3–4). Topics vary. Prerequisites: HNRS 205 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 207 or permission of honors director.

HNRS 450. Seminar in Fine Arts (3–4). Topics vary. Prerequisites: HNRS 204 or permission of honors director.

Certificate Programs

Certificate programs are available at the undergraduate and graduate levels. Each program consists of a group of related courses that addresses a special topic. Completion of these courses indicates achievement in a specialized area. Certificate programs 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.

The Barton School of Business offers a graduate certificate in enterprise systems and supply chain management in conjunction with the College of Engineering.

The College of Education offers graduate certificates in educational technology, child/play therapy, coaching, literacy, the National Board for Professional Teaching Standards, and functional aging.

The College of Engineering offers a graduate certificate in advanced composite materials, foundations of six sigma and quality improvement, lean systems, systems engineering and management, industrial ergonomics and safety, composite materials and processing, advanced manufacturing analysis, and design for manufacturing. A graduate certificate in enterprise systems and supply chain management is offered jointly by the College of Engineering and Barton School of Business.

The College of Fine Arts offers an undergraduate certificate in decorative and ornamental painting and design.

The College of Health Professions offers the educational interpreter development certificate program: signing exact English,
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 adviser from within the appropriate department. Each placement is assessed by the faculty adviser for its potential to provide learning experiences 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 coursework before entering a second alternating position. Alternating placements carry the status of full-time students and enjoy the accompanying privileges.

Students selecting the parallel option are required to carry a minimum of 6 hours of coursework in addition to their co-op courses. 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 may register through the Web site. Students attend a professional practice workshop prior to meeting with the appropriate college coordinator. For additional information and registration, check: wichita.edu/coop.

Internships

A wide variety of internship opportunities are available for WSU students who want to have a short work experience 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 predetermined in length, often lasting only one semester or the summer. Opportunities are available within the Wichita area and across the country. Some internships offer housing assistance through stipends or directories. Students accepting an internship enroll in specially designated internship courses and work with a faculty adviser from within the appropriate department. Academic credit is earned after completing all project requirements assigned by the adviser.

Requirements for internships vary within different colleges and departments and for various employers. Generally the requirements for registering in the internship office include completion of 24 credit hours and satisfactory academic standing.

Interested students should come to the office of Cooperative Education and Work-Based Learning, 223 Grace Wilkie Hall, or call (316) 978-3688. Students attend a professional practice workshop, prepare an appropriate resume and meet with an experienced coordinator for their college. Additional information and registration may be obtained from our Web site: wichita.edu/coop.

Global Learning

Courses so identified incorporate global learning, which means that WSU students have the opportunity to learn collaboratively with students, faculty or experts at overseas universities, institutions or corporations. The focus of such activities is on the development of intercultural communication and collaboration competence through experiential learning and reflective practice. This is underpinned by a conceptual framework for dialogic co-construction of meaning and identity, known as the cage painting metaphor. Students will use modern communication technologies such as online discussions, Internet2-based videoconferencing, collaborative documents, chat, e-mail, SMS, and emerging tools. Global learning leads to the additional learning outcomes of strategies for lifelong enhancement of intercultural communication and collaboration. This prepares students to live and work in a technologically interconnected, culturally diverse and interdependent world. For more information see: wichita.edu/gl.

Exchange and Study Abroad Programs

National Student Exchange

The National Student Exchange (NSE) is an exciting opportunity to attend one of nearly 200 colleges and universities across the country while paying regular WSU tuition. Costs of room, board, and books are paid at the host campus. Students continue to have financial aid information sent to WSU. Most financial aid and scholarships will still be applicable; student aid must first be applied to WSU tuition, and the balance can be taken to pay costs at the 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 2.500 cumulative grade point average at the time of application and at completion of the semester prior to exchange. Students should apply for the program during the fall before the year they want to exchange.

Prior to the exchange, students and their academic advisers will complete an advising agreement. Students will receive full credit for work satisfactorily completed on exchange.

For more information, call the NSE coordinator at (316) 978-3085 or visit the Marcus Welcome Center.

Study Abroad Programs

Due to the widespread downturn in the economy, the position of study-abroad coordinator remains vacant. Therefore, study-abroad services may not be available until further notice. WSU students who would like to study outside the U.S. may want to visit the websites of other universities, such as the University of Kansas, that have fully operational 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 Aoyama Gakuin University, Kansai Gaidai University, and Nagoya City University in Japan; Fong Jia University in Taiwan; the University of Canberra, and Curtin University of Technology in Australia; Auckland University of Technology in New Zealand; the Berlin School of Economics in Germany; Jonkoping International Business School in Sweden; the University of Applied Sciences in Wiener-Neustadt, Austria; and University College Chester in the U.K. Students may also participate in a study abroad program with University College Winchester in the U.K. 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 as follows:

**Exchange Program with the University of Orléans.** Wichita State University has a special exchange program with Wichita’s French sister city, Orléans. 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. Orléans 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 Orléans when enrolled in the summer program. For more information, contact the department of modern and classical languages and literatures, 305 Jardine Hall.

**Summer Program in Strasbourg, France.** Students French can improve their fluency and broaden their understanding of French culture in the five-week summer program in Strasbourg, France. Students with a minimum of one year of University French or the equivalent are eligible to participate. Students live in university housing and attend intermediate through graduate level courses in French language, culture, and literature. Up to 6 hours of credit may be transferred to WSU. For more information, contact the department of modern and classical languages and literatures, 305 Jardine Hall.

**Spanish Program in Puebla, Mexico.** The department of modern and classical languages and literatures offers a program designed to broaden students’ comprehension of the language, customs, history, and culture of Mexico.

Students who complete the six-week course may earn 6 hours of undergraduate or graduate credit. 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, North Dakota, and Wisconsin 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 students would pay as nonresidents. Programs approved for the MSEP at Wichita State are international business, exercise science, aerospace engineering, industrial engineering, manufacturing engineering, music—instrumental or vocal, pre K–12-music education—special, criminal justice, communication, English—creative writing, women’s studies, and medical technology.

To qualify for admission to MSEP, students must:

- have an ACT score of 21 or higher or an SAT score of 990 or higher;
- complete the 13 unit college preparatory curriculum as defined by ACT, including four units of English and three units each of social sciences, natural sciences, and mathematics;
- have a high school GPA of 2.500 on a 4.000 scale; and
- submit an eight-semester high school transcript.

If students meet the criteria, they will be offered a position in MSEP. Students in the program must maintain satisfactory progress toward their degree with a grade point average of 2.500 or higher.

For more information, call (316) 978-3010 or e-mail Keith.Pickus@wichita.edu.

**Field Studies and Workshops**

**Workshops**

Workshops devoted to current topics are offered throughout the year. Typical courses include workshops for teachers in the areas of business, education, and fine arts; courses in current health issues; an entrepreneurship workshop for people considering creating 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 sophomore and senior years may enroll as guest students for college credit in WSU classes (see page 10). Other summer opportunities for high school students at Wichita State include sports camps in basketball, baseball, and volleyball; and enrichment courses for career exploration.

**Field Studies—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 coursework 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**

University Libraries comprises Ablah Library, the main library; the McKinley Chemistry Library; and the Thurman Liefurance Memorial Music Library. These libraries support teaching and research at WSU through a wide range of materials, facilities, and services. The collections include more than three million books...
and periodicals, microforms, government publications, corporate annual reports, scores, videotapes, audio recordings, and over 110 electronic databases. Ablah Library has been a Government Documents Depository Library for over 100 years and is an official United States Patent and Trademark Depository Library, the only such depository in Kansas.

Ablah Library facilities include seating for more than 800 people, group and faculty study carrels, a 24-hour study room, two equipped seminar rooms, and a recently-added coffee bar. Over 125 computer work stations with access to the University Libraries’ online catalog, electronic databases, and Internet are located throughout the building. These workstations also provide word processing, spreadsheet, and relational database capabilities, and are networked to print stations. Ten laptops are available for in-library use. Students have access to a wireless network throughout the building. Other available facilities include electronic carrels with listening and viewing equipment, microform reading and printing equipment, photocopiers, scanners, and color printers.

University Libraries offer students a variety of services, including convenient hours and remote access to the online catalog and electronic resources. Reference librarians and help desk personnel are available to help library users locate information and use the equipment and facilities. An interlibrary loan service provides access to materials that are not owned by the library by locating and borrowing them 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 digitized and available via the Internet. This collection includes papers of the abolitionist William Lloyd Garrison, the Baughman Collection of Early Kansas Maps, and local history collections, all of which can be helpful for student research.

More information about library resources and services is located on the libraries’ Web site at 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. More details about these and other services are online at: 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 such as e-mail support, Internet use, and class project assistance.

Jabara Hall, room 120, 122 Hours:
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.

Campus Network Access

All residence hall students are provided a direct, high-speed connection to the campus network and the Internet. Wireless access to the campus network (and Internet) is also available from all campus buildings by registering the wireless network card via their myWSU account.

E-mail (@wichita.edu)

Every WSU student is automatically assigned an e-mail account with the “@wichita.edu” suffix. This electronic mailbox allows students to send and retrieve communication. The use of e-mail is provided as a source of communication for academic pursuits. Students are expected to use this e-mail address for university communication. Applications, instructions, and other information about e-mail accounts are available at the online WSU e-mail center: wichita.edu/email.

myWSU

The myWSU portal is a Web site that allows students to view and update their own WSU information. Examples are: add/drop courses, check academic status, check on status of financial assistance, and get academic history (grades). For more information about this service and how to activate the account, go to: wichita.edu/mywsu.

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 University.

The MRC operates the university’s cable television station, WSU-TV, and programs three other channels: Channel 21, MTVU; 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 designs, installs, and maintains 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 Savaiano-Cress Language Labatories 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 learning experience through the use of instructional media. Hours are flexible to accommodate all students’ needs.

Math Lab

The Math Lab, 371 Jabara Hall, offers free mathematics tutoring for WSU students enrolled in the following courses: 007, Arithmetic; 011, Beginning Algebra; 012, Intermediate Algebra; 111, College Algebra; 112, Precalculus Mathematics; 123, College Trigonometry; 144, Business Calculus; 242, Calculus I; and 370, Elementary Statistics. Students may spread
out their books and study math knowing that help is available when needed. Numerous mathematics faculty members volunteer time in the lab and it is staffed by graduate students and exceptional undergraduate students who are studying mathematics and/or mathematics-related disciplines. No appointment is necessary; students are encouraged to visit the lab during its hours of operation. To determine the hours for the current semester, refer to the schedule posted outside the lab or check the math department’s Web site, wichita.edu/math.

Supplemental Instruction Program
Supplemental Instruction (SI) is a proven program which helps students better understand course content and therefore improves their course grades. This program offers informal study sessions for specific courses, identified in the Schedule of Courses, that are designed to help students integrate course content and study skills.

Writing Center
The WSU Writing Center in 601 Lindquist Hall is free and open to all WSU students. In the Writing Center, all students can meet with a tutor who is either an undergraduate or graduate teaching assistant. While tutors do not proofread or edit, they offer assistance with all aspects of writing, including brainstorming, organization, style, and revision, as well as specific writing concerns voiced by the student. A tutoring session lasts about 30 minutes. No appointment is necessary, but appointments may be scheduled by contacting the center at (316) 978-3173.

In addition to tutoring, the center is equipped with five computers with Windows, Microsoft Word, and Internet access. Students may also do online writing exercises to help improve basic grammar skills. Reading comprehension exercises are also available in the center.

The Writing Center is open 9 a.m.–3 p.m. Monday through Friday and 5–7 p.m. Monday through Thursday. It closes at 5:30 p.m. Monday through Thursday. The center’s function is to prepare resumes and to conduct effective employment interviews.

Information on occupations and careers, news on employment trends and annual salary survey reports can be found in the Career Library in the career services office—203 Grace Wilkie Hall. The Career Library also houses a lab with computers for student use when preparing job search documents such as resumes and cover letters. Internet access is available for students and alumni conducting career research or a job search.

ShockWORKS is an online recruiting tool available to all students and alumni of WSU. National, regional and local employers post jobs online. ShockWORKS is also a resume database used by employers trying to fill degreeed and non-degreeed positions. Other employment services offered include career fairs and on-campus interviews.

Students who need to decide on a major, want information on a career field, need a resume critique, want a part-time job, or are about to graduate and need full-time employment, can contact the Office of Career Services at 316-978-3435 or career.services@wichita.edu.

Child Development Center
The WSU Child Development Center is located at 3026 East 21st Street North, at the NW corner of Hillside and 21st Street. It is a nationally accredited and 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 facilitates 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 6 weeks to 6 years old.

Enrollment is limited so it is recommended to get on the waiting list as soon as possible. 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.

Counseling and Testing Center
The Counseling and Testing Center provides psychological services for personal and career/life planning issues. Professional counseling is available to all members of the university community—students, faculty, and staff. Psychological testing for learning disabilities and other conditions that might interfere with academic progress is also offered. Academic testing services are also part of the center’s function. The center’s testing offerings include the credit by exam program, certification tests for community professionals, CLEP tests, and entrance exams for colleges and graduate schools.

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

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 services 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
wichita.edu/diserv

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.

**International Student Services**
The Office of International Education serves the special needs of approximately 1400 international students from more than 100 countries enrolled at Wichita State University. (For international student admission requirements, see page 11.) An orientation program specially designed for new international students prepares them for entrance into the U.S. academic systems and way of life.

The office also sponsors Friendship International for Women, the Cultural Ambassador Program, and other activities that promote interaction between U.S. and international students.

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

For more information, contact the Garvey International Center, (316) 978-3232.

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

The Copperfields Food Court in the RSC includes Taco Bell®, Chick-Fil-A®, The Diner and Grille, The Corner Market, and The Station—which includes Pizza Hut®, 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, Shocker souvenirs, and gifts. Visit the University Bookstore on the Internet at wsubooks.com or call (316) 978-3490.

The RSC’s William H. Smith Bowling and Recreation Center is located on the lower level for leisure use. It includes pinball, video games, bowling, billiards, poker tournaments, karaoke, snacks, locker rental, an engraving shop, laminating services, and a barber/beauty shop. The center, perfect for parties, is available for campus and non-campus group rentals at reasonable rates. The center is also 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 SAC is the largest event-planning organization on campus; it sponsors more than 200 events annually, including Shocktoberfest and Hippodrome.

The RSC is also home for the Student Government Association, Student Advocate, Shocker Card Center, Commerce Bank, University Dining Services, WSU Campus Ministries, Center for Student Leadership, and the RSC 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 University 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 978-INFO (4636) for any information about WSU.

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

**Sports and Recreation**
Numerous sports and recreation programs exist at the university.

As an NCAA Division I member, Wichita State competes in the Missouri Valley Conference; WSU men compete in basketball, baseball, cross country track, tennis, and golf. WSU women compete in basketball, softball, cross country track, tennis, golf, and volleyball. The university fields teams in bowling and crew as independent sports.

There is also 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 aikido. Intramural sports include flag football, basketball, table tennis, badminton, soccer, softball, bowling, swimming, and racquetball. A regulation 18-hole golf course is available as one of only a few on-campus golf facilities in the country.

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

**Facilities**
The 10,478-seat Charles Koch Arena, which is used for intercollegiate basketball games, volleyball matches, and major entertainment events, is the home of WSU intercollegiate athletics. Other recreation facilities include Cessna Stadium, a 31,500-seat football and track and field facility which hosts high school and community events; the 7,851-seat Eck Stadium—Home of Tyler Field, home to the Shocker baseball program, which underwent a $7.8 million renovation in 2000 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 1,000-seat C. Howard Wilkins Softball Facility for intercollegiate softball for women. Visit us online at: goshockers.com.

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, a squash court, 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: wichita.edu/heskett.

**Office of Multicultural Affairs**
The Office of Multicultural Affairs (OMA) envisions an all-inclusive multicultural campus community of interdependent and interconnected cultures at Wichita State University. In this multicultural community, all its members see themselves as ambassadors of human relations, whose individual and collective role is to promote, encourage, and support inclusiveness, respect, fairness, access, equity, and justice for all people. Wichita State University aspires to become an all-inclusive campus community where its citizens recognize themselves first, as members of one common race—the human race—and second, as representatives of a particular racial, ethnic, gender, religious, political, or any other group.

The Office of Multicultural Affairs promotes an all-inclusive global diversity at Wichita State University. Such community is anchored in a campus climate that is inviting, welcoming, supportive, caring, and nurturing; one in which its citizens, regardless of their human and socio-cultural differences, can co-exist in harmony. In addition, the OMA serves as a catalyst for promoting a culture of collective responsibility for the multiculturalization and globalization of Wichita State University. OMA is committed to supporting the
overall mission of Wichita State University and works collaboratively with university communities to offer year-round all-inclusive, educational, cultural, social, and outreach programs for students, faculty, administrators, and staff that are aimed at achieving academic excellence, institutional strength, and campus unity.

OMA offers dozens of events related to all aspects of diversity and in observance of theme months such as Black History Month, Women’s History Month, Asian/Pacific American Heritage Month, Hispanic Heritage Month, Domestic Violence Awareness Month, and Native American History Month. The staff collaborates with groups and departments throughout the campus to provide relevant programming.

OMA also is home to the Multicultural Student Mentoring program, a peer-based program which matches successful juniors and seniors with entering freshmen to help ease the transition from high school to college, makes new students aware of services available to them on campus, and encourages involvement in campus life.

The Office of Multicultural Affairs is located in 174 Grace Wilkie East (Annex) adjoining Grace Wilkie Hall. The office provides a lounge area, library and current periodicals with ethnic/diversity topics, and a small computer lab. Visitors are welcome 8:00 a.m.–5:00 p.m. weekdays. For information on events, and to learn more about OMA, please visit our Web site at wichita.edu/multicultural.

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 including the Heskett Center, Rhatigan Student Center, and Student Health Services. SGA also provides opportunities to fund 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 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 Ahlberg 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.

Insurance is recommended, but is not required to be seen at Student Health Services.

For more information, call (316) 978-3620 or check: wichita.edu/shs.

Veterans Services
The Office of Veterans Services, 203 Jordaine 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 Serviceman's Opportunity College. For more information, visit the Web site wichita.edu/vetdis.

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

TRIO Programs
Disability Support Services
Educational Opportunity Centers Program
McNair Scholars Program
Student Support Services
Talent Search—Project Discovery
Upward Bound—Communication
Galaxy Experience
Veterans
Wichita Prep

Disability Support Services, Educational Opportunity Centers, McNair Scholars Program, Student Support Services, Talent Search Project Discovery, and four Upward Bound programs—Communication, Regional Math-Science Center/The Galaxy Experience, Veterans, and Wichita Prep—are special programs designed to help students prepare for university life, succeed on a university campus, and successfully complete their course of study.

The TRIO Disability Support Services 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 TRIO DSS include: academic advising, individualized tutoring, career exploration and referral, study/life skills improvement, scholarship opportunities, computer technology lab usage, financial aid research, graduate school selection and information, course selection and degree planning assistance, book/computer loan program (desktop and laptop) and campus and community involvement opportunities. For information, contact TRIO DSS at (316) 978-5949, stop by 158 Grace Wilkie Annex, or visit wichita.edu/dss.

The Educational Opportunity Centers (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 post-secondary 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 test preparation and testing), English as a Second Language (ESL), or Adult Basic Education (ABE) test preparation; and community referrals. See wichita.edu/loc.

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 Dr. 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. Local and national symposia provide an opportunity for students to present their research. In addition, regular workshops encourage students’ serious consideration of doctoral study. For more information, go to: wichita.edu/mcnair.

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 additional information, go to: wichita.edu/sss.

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 and secondary completion. The program provides assistance to middle school students, high school students, dropouts from secondary and postsecondary 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. The Web site is wichita.edu/talentsearch.

The Upward Bound programs are federally funded programs that have been at WSU since 1966 (Wichita Prep) and 1991 (The Galaxy Experience). New in 2008 are Communication and Veterans.

The Communication Upward Bound program offers youth in the Wichita area an opportunity to hone their communication skills and learn how to work with and write for varied media outlets. The centerpiece of the program is a four-week intensive residential summer camp for high school students housed on the Wichita State University campus and run by faculty and staff in the Elliott School of Communication. Year-round tutoring in all academic areas, field trips and Saturday activities help students stay in touch with their peers and their mentors. Students learn about the new world of communication while learning and perfecting public speaking, writing, and media production skills. Students produce their own newspapers, video broadcasts and Web sites, and learn to work together in a professional setting to express their unique views. Community media professionals contribute their time and skills to help mentor this important generation of future communicators. All services are provided to program participants completely free of charge. In fact, students receive a small stipend for their participation.

The mission of the Upward Bound Regional Math-Science Center—the Galaxy Experience is to stimulate and advance interest in mathematics, science, and computer technology; challenge students to perform; provide a 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 program offers high school students from limited-income backgrounds and first generation university students the opportunity to interact with a highly qualified staff and faculty, as well as industry and peer mentors. Fifty participants are drawn from public and private high schools in a four-state 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 being and machine into outer space.

Environmental Concerns—examines conservation and pollution issues in the nation and in Wichita's immediate surroundings.

Human Health Issues—focuses interests in biological science on issues most pertinent to students. The Upward Bound Web site is: wichita.edu/ubms.

The Veterans Upward Bound program (VUB) is an educational and skills program designed specifically to serve the needs of today’s Veterans. This program offers a unique range of services designed to prepare eligible veterans for success when they enter their chosen educational program whether it is at a two-year community college, a four-year college or university, a public or private school, or a vocational or technical school. All services, including instruction, textbooks, advising, and supplies, are provided free of charge. VUB is a TRIO program funded by the U.S. Department of Education and is administered by campus life and university relations at Wichita State University. It serves veterans in Wichita, Sedgwick County, Butler County and Harvey County. The main office is located on the Wichita State University Campus.

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 75 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 who will enroll in university classes in the fall provides them their first experience with college coursework. The Web site is: web wichita.edu/ubwp.

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

Kansas Kids® GEAR UP works 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.

For more information, contact Kansas Kids® GEAR UP at (316) 978-7810 or visit wichita.edu/gearup.

Student Organizations
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 adviser’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 of SGA statutes, and be listed as a WSU organization in the Campus Directory, and other university publications. Records of recognized organizations are maintained in the Center for Student Leadership.

For a complete list of recognized student organizations, please see the Center for Student Leadership Web site at: wichita.edu/csl.

University Facilities
Wichita State's main campus is located on a 330-acre site bounded by Hillside, Oliver, 17th and 21st streets in northeast Wichita. The Eugene M. Hughes Metropolitan Complex, located at 29th Street North and Oliver, is considered part of the main campus. Continuing education classes and special services including the Speech-Language-Hearing Clinic and the Wichita Radio Reading Service are available at the Eugene M. Hughes Metropolitan Complex, 978-3258.

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.

National Institute for Aviation Research
Since its inception in 1985, the National Institute for Aviation Research at Wichita State University has made a name for itself as the most capable university aviation research center in the United States. NIAR provides research, design, testing and certification to the aviation manufacturing industry, government agencies, educational entities and non-aviation related businesses.

With 135,000 square feet of research and office space, the institute is home to more than a dozen labs.

The institute serves the needs of industry and government and supports educational programs of the university, providing facilities for both faculty and student research in support of the College of Engineering and Fairmount College of Liberal Arts and Sciences.

NIAR is also proud to hold two FAA Center of Excellence designations. NIAR is a Center of Excellence for General Aviation Research (CGAR) and is the headquarters for the Center of Excellence for Composites and Advanced Materials (CECAM). Other government organizations have also designated NIAR as a research hub. NASA sponsors the National Center for Advanced Materials Performance (NCAMP), located within NIAR, and the National Science Foundation had named WSU/NIAR as a center for Friction Stir Processing (CFSP). NIAR is also supported by the Kansas Technology Enterprise Corporation (KTEC) as a Center of Excellence.

Find out more at www.niar wichita.edu.

Plaza of Heroines
Surrounded by Ablah Library, Jabara Hall, Grace Memorial Chapel, and Clinton Hall, the Plaza of Heroines is a beautiful and welcome gathering place. Danseuse Espagnole (Spanish Dancer), by artist Sophia Vari, is a striking addition to WSU’s highly regarded outdoor sculpture collection and the centerpiece of the plaza. Landscaping and benches surround the sculpture enhancing the circular plaza, constructed of bricks and granite pavers engraved with the names of honored women. A nearby touch-screen computer in the lobby of Jabara Hall displays personal histories and reflections submitted by contributors for each honoree. Proceeds from the plaza project benefit the Center for Women’s Studies scholarship fund.

Rhatigan Student Center
See page 29.

South Campus
In spring 2008, WSU began offering courses at its new South Campus located at 200 West Greenway Street, Suite 15A, Derby. The new South Campus sports state-of-the-art audio-visual teaching technology and equipment. It contains 30 work stations in the computer laboratory and six in the student study areas.

The South Campus offers both general education courses and degree programs. Of note, the accelerated nursing program is hosted at the South Campus. Under this program, nursing students graduate in only 15 months. The university anticipates that additional programs will be offered at the South Campus in the years to come.

Select student services, textbook ordering and delivery, and library services are also available at the South Campus.

Sports Facilities
See page 29.
Ulrich Museum of Art
Art with a pulse! The Ulrich Museum of Art is Wichita’s premier venue for modern and contemporary art. To find out what’s new and different in today’s art scene, this is the place to visit. What’s on the walls? What’s coming up? Check out the museum’s Web site at ulrich.wichita.edu for a list of current exhibitions, events (including opening receptions—free eats!) and upcoming visits by established and emerging artists of national and international significance.

In addition to art inside the museum, the Ulrich also is known for its outdoor sculpture collection. More than 70 works of art can be found on WSU’s 330-acre campus. Free maps of the outdoor sculpture collection are available at the museum’s main desk.

Students at Wichita State University receive a FREE membership to the Ulrich when they stop by the museum with their Shocker Card to activate their membership. The museum is open from 11 a.m. to 5 p.m. Tuesday–Friday and 1 to 5 p.m. Saturdays and Sundays. Admission is always free.

Interested in scheduling a guided tour? Want to volunteer? Other questions? Call the Ulrich Museum of Art at (316) 978-3664, e-mail ulrich@wichita.edu or visit ulrich.wichita.edu.

West Campus
WSU offers more than 150 class sections each semester at the West Campus located at 3801 N. Walker Avenue, which is near 37th Street North and Maize Road.

A full range of general education courses (with the exception of laboratory sciences) is offered. Additionally, social work, education, and communication offer courses in their major areas. Selected graduate courses are also offered. This facility offers services such as advising, tuition and fee payment, as well as library checkout and return.

Textbook ordering and delivery are also available. For further questions call: (316) 978-6777.

Wiedemann Hall
Wiedemann Hall houses the first pipe organ built in North America by the world-renowned firm of Marcussen and Son, Denmark. The hall, which was dedicated in 1986, is the ideal acoustical setting for the organ. In addition to the hall’s main auditorium, the building has four faculty offices, an organ studio, and rooms to accommodate broadcasting, recording, and televising.

Academic Policies and Procedures

Student Responsibility
Students at Wichita State University have the following responsibilities:
1. To consult their advisers on all matters pertaining to their academic careers, including changes in their programs;
2. To observe all regulations of their colleges and select courses according to the requirements of that 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 in computing final grades);
4. To fulfill all requirements for graduation;
5. To be personally responsible for fulfilling all requirements and observing all regulations at Wichita State;
6. To answer promptly to all written notices from advisers, faculty, deans, and other university officers;
7. To file an application for degree in the Graduate School no later than the 20th day of the fall or spring semester (or 10th day of summer semester) 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 in the following statement:

Wichita State University reaffirms the principle of intellectual freedom in scholarly activity for university students, and it recognizes the full citizenship rights of students in inquiry, discussion, and such actions as they may choose to take 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 responsibility 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
The Student Code of Conduct details guidelines regarding student conduct and student disciplinary procedures. These guidelines cover topics such as academic honesty, drug use, hazing, gambling, weapons, and sexual harassment. The disciplinary procedures outline the actions needed to file a complaint and the course followed in student disciplinary hearings.

The Student Code of Conduct is located online in section 8.05 of the WSU Policies & Procedures Manual. From the WSU homepage at wichita.edu, click on “Browse A–Z” and choose P for the Policies and Procedures Manual, then follow the links to the student policies and procedures section 8.05.

Academic Progress and Recognition

Academic Progress Reports
Reports on a student’s progress are given in several ways.

Midterm Reports. Instructors are asked to provide midterm grades for students in full-semester courses. Submitted reports, reflecting mid-term grades, are available electronically to students and their academic advisers the ninth week of the semester. When grades reflect below average work, students should meet with their instructors and/or college advisers to discuss problems.

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 either 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 above the level required by their college for
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 these standards.

Because 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, Cr, NCr, I, S, or U.

Transfer students admitted on probation must complete at least 12 credit 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 credit 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 a semester on probation if they fail to earn a semester grade point average of 3.500 for work in the honors track, but for all departments a minimum grade point average of 3.500 for work in the honors track is required.

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 dismissed student whose grade point average qualifies him or her for admission to another college at WSU may apply to the exceptions committee 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 deans of their colleges and if their petitions are approved. Without that approval, a late withdrawal is considered an F.

Students are advised to consult with their course instructors and academic advisers before initiating withdrawal procedures. Procedures for withdrawing from a college can be acquired from the student’s college or school office or the registrar’s 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, Office of Campus Life and University Relations, 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 successfully complete 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; or
4. The student violates the provisions of the student responsibility statements in the university Catalog. (See the Student Responsibility section, page 33.)

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...
Transfers Within the University

Students may transfer from any undergraduate degree-granting college to another provided they meet, at 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.

Enrollment

Audit Credit

Students are permitted to attend 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. A student’s load (total credit hours) does not include audit enrollments. Courses taken on an audit basis may be repeated for credit, and if repeated may be used to fulfill degree requirements if the repeated grade is acceptable. Use of the audit basis for a course must be declared at the time of enrollment. Audited courses are not eligible for financial aid.

Classification of Students

Students are classified according to the following scheme:

- Freshmen: less than 30 credit hours earned;
- Sophomores: 30 to 59 credit hours earned;
- Juniors: 60 to 89 credit hours earned, and;
- Seniors: 90 credit hours or more earned.

Full-time status: 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, with graduate teaching assistants full time with 3 hours. Students receiving federal financial aid may need to enroll in more hours to be considered full-time.

Course Numbers

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

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.

Courses numbered 300 to 499 are taught primarily for juniors and seniors. Freshmen and sophomores also may be admitted if they satisfy the course prerequisites 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 at juniors and seniors, but graduate students may 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 prerequisites.

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 the Graduate School. (See the Catalog section called 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 excluded from credit toward graduation. Such courses are also excluded from the calculation of the grade point average.

In addition, certain credit courses are graded only Cr/NCr. Any department in the university may offer 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 fifth week of the eight-week summer session), a grade of W is recorded. If they withdraw from such 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 petition to the university’s exceptions committee.

Cr/NCr may also be granted to a freshman for the first semester of work during the transition semester, as discussed in the Transition Semester policy, page 38.

Credit by Examination

Undergraduate course credit may be obtained by examination. Credit by examination will not be awarded for duplication of credit or to replace course grades. More information on tests available and scores accepted for credit is posted on the Counseling and Testing Center Web site, wichita.edu/counselingtesting. Students should check with their academic advisors before attempting any test. There are several means by which such credit may be earned:

1. Credit may be earned through Advanced Placement (AP) or International Baccalaureate (IB) exams administered through a student’s high school. AP and IB exam credit is awarded for specific courses in many areas at Wichita State. The titles of the specific courses for which credit is granted and the AP or IB scores necessary for such credit are available at the WSU Counseling and Testing Center or on the Web site listed above.

2. Credit may be earned through the College Board’s College Level Examination Program (CLEP) or DSST exams. Both kinds of exams are administered by the Counseling and Testing Center. General CLEP exams are intended for entering freshmen; a student with divisional credit will not receive additional hours by taking general CLEP exams. Information about the dates and times CLEP and DSST exams are administered is available
at the WSU Counseling and Testing Center, (316) 978-3440.

3. High scores on the English and Math sections of the ACT or SAT will earn credit in English and Math classes at WSU. Submit scores to the WSU Counseling and Testing Center for evaluation, or call the center for more information.

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 given above. Students should apply directly to the chairperson of the department offering the course and 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 text used, and other information relevant to taking the department exam.

The grade recorded for credit earned by examination is TCrE and it is recorded on a student’s transcript after enrollment in the university. It is recorded as transfer work, because it is credit for learning that did not occur through enrollment in a WSU course.

Students may not take 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 retake 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.

Fees are assessed to cover the costs of administering examinations and must be paid before the examinations are taken. A schedule of fees for the various examinations is available from the Counseling and Testing Center.

All credit by examination is subject to university policies and will be reviewed by the Office of the Registrar before being placed on the transcript.

Credit awarded by examination is determined by the department offering the course, which has sole jurisdiction.

Credit by examination from all accredited institutions of higher education is evaluated in the same manner as regularly graded coursework from these institutions. The credit awarded is adjusted to the credit by examination policies of Wichita State. Every attempt is made to ensure that credit by examination applies to both a student’s degree program and university requirements for graduation.

However, in no case may a transfer student receive more credit than the credit available to students at Wichita State.

Examinations
The examination policy in each course is established by the department and the faculty of record and will be outlined with the course requirements. Reexaminations shall be permitted only with the consent of the faculty when reexamination is deemed to contribute to the academic objectives of the course.

Students cannot be required to take more than two final examinations per day. Arrangements for rescheduling the examination must be made by the student prior to the scheduled examination.

Special examinations, when requested, will be given only with the consent of the dean of the college involved. Students with disabilities should contact the director of disability services for assistance with special examinations.

Students who miss an assigned examination should arrange with their instructor to take a make-up examination. The dean of their college will serve as arbitrator only when deemed necessary.

Grading System
Wichita State grades include A (distinguished), B (superior), C (average), D (below average), F (failure), W (withdrawal), Cr (credit), NCr (no credit), S (satisfactory), U (unsatisfactory), I (incomplete), IP (in progress), NGS (no grade submitted), CrE (credit by examination), and Au (audit). Passing grades include A, B, C, D, Cr, CrE, and S. The grades F, NCr, and U indicate that the quality of work was such that, to obtain credit, the students must repeat regular coursework. A plus/minus grading system was adopted beginning fall 2009. It applies to grades of A, B, C, and D.

Related details:
B or better grade required: B- will fulfill this requirement unless otherwise indicated.
C or better grade required: C- will fulfill this requirement unless otherwise indicated.

Incomplete. Temporarily recorded as a grade when a student is granted an extension of time to complete coursework. 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. An incomplete course must be satisfactorily completed by the end of the next semester in which the student enrolls, summer excluded, or the I reverts automatically to an 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 resume academic work, they must request that an exception be made by the chairperson of the department offering the course. The department chairperson may authorize a substitute course, postpone action for a semester or authorize a grade of W.)
2. If a student receives an incomplete on the third enrollment in the same course, he or she 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 averages.
4. When students receive a grade of incomplete, they are informed of the policies and procedures governing the removal of incompletes.

Credit/No Credit. Used only in the transition semester and for courses defined as Cr/NCr in the Catalog.

Credit by examination. Credit by examination or by credentials in lieu of formal enrollment in college coursework. 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 35.

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 credit hours completed for which regular letter grades (A, B, C, D, and F) are assigned. The grades Au, W, I, Cr, NCr, S, U, and CrE are always excluded from grade point average computations. A degree grade point average is frozen at the time of graduation.

Credit Points. For each hour of work the student takes, credit points are assigned, as follows, to permit averaging of grades:

\[
\begin{align*}
A & = 4.000 & \text{C} & = 2.000 \\
A- & = 3.700 & \text{C-} & = 1.700 \\
B+ & = 3.300 & D+ & = 1.300 \\
B & = 3.000 & D & = 1.000 \\
B- & = 2.700 & D- & = 0.700 \\
C+ & = 2.300 & F & = 0
\end{align*}
\]

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

Course Completed. A completed course is a course 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.

Repeat Policy. 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. 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 class at WSU will automatically replace all previous grade(s) 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.
   c. Repeated courses are identified by an extra letter after the grade as follows:
      1. included in GPA
      2. excluded from GPA
      3. averaged in GPA but not counted in earned hours.

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

4. Neither policy 2a nor 2b may be applied after graduation to courses attempted prior to graduation.

Graduate Credit for Seniors (Senior Rule)

Seniors at Wichita State or neighboring bachelor’s-degree-granting institutions may qualify to take work for graduate credit under the senior rule option. This opportunity applies to students who have an overall grade point average of 3.000 or above in their major field and in upper-division courses and who are within 10 hours of completing the bachelor’s degree. Work must go beyond the requirements for the bachelor’s degree, and the degree must be completed within the semester in which a student takes the graduate courses.

Students who wish to earn graduate credit under the senior rule must apply to the Graduate School for regular graduate admission and also complete a senior rule application form. Both forms are due in the Graduate School no later than two weeks before the semester in which the student intends to enroll under the senior rule option.

Approval is needed from the student’s major adviser, the chairperson or graduate coordinator in the program in which the work is to be taken, the undergraduate dean of the student’s college, and the dean of the Graduate School before any courses can be taken for graduate credit. In addition, students from other institutions must be admitted as undergraduates (possibly as guest students) through the WSU undergraduate admissions office. Tuition for graduate courses will be assessed at the graduate rate.

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 exceptions committee 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. When implemented, the policy waives all previous credits and grades except in the case of credits and grades earned in the special non-degree-bound status under the open admission policy.

Change of Grades

Changes of grade due to errors in grading or reporting may be initiated by an instructor at any time during one calendar 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 in residence. The approval of the dean of the college of the department concerned is needed to have the change in grade entered on the student’s transcript. The dean must then notify the chairperson of the department concerned that the grade has been changed.

An instructor who wishes to request a change in a grade assigned more than one year earlier may petition his or her college’s committee on exceptions. If this committee approves a change in grade, the instructor, department chairperson, and dean concerned must be informed by the committee before its recommendation is transmitted to the registrar’s office and the grade change entered on the student’s transcript.

This change of grade policy does not affect the right of the student to appeal to the Court of Student Academic Appeals. However, the court will ordinarily not hear cases involving grades assigned more than one semester prior to the time of appeal.

In cases where failing grades have been recorded because a student was unable to withdraw officially, the student may petition the dean of the college for a retroactive withdrawal from all courses in the semester in question. The student must provide verifiable evidence of the causes for failing to withdraw properly. If the
petition is granted, the grades are changed to W through the usual withdrawal procedure.

If a student requests a change more than a year after the original grades were posted, the student’s petition also must be approved by the University Admissions and Exceptions Committee. The policy applies to all courses in a semester and can be invoked only for Wichita State University courses.

This change of grade policy may not be applied after graduation to courses attempted prior to graduation.

Court of Student Academic Appeals
The faculty at Wichita State has established a procedure to resolve disputes arising out of the classroom through 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 differences that cannot be settled in the framework of the student-faculty relationship and offers an important safeguard for students.

The student must file an appeal within one semester after the grade is assigned (excluding summer). The court may waive the time limit if documented and verifiable exceptional circumstances cause a delay in submitting the appeal.

Any student may use the appeal procedure. Forms are available in the dean of students office, 303 Grace Wilkie Hall. The general procedure is explained to students when they pick up the form.

Exceptions Committee
The University Admissions and Exceptions Committee reviews 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 other specific academic rules and regulations for which exceptions can be made. This does not include grading matters handled by the Court of Student Academic Appeals.

Exceptions petitions are considered first by the student’s college committee, then by a university committee. Exceptions denied at the college level are automatically submitted for consideration at the university level. Decisions made by the university committee are final. University-level decisions may be appealed by repetition; however, such decisions must be considered only if the student presents relevant documented information that was not included in the original petition. The university committee decision concerning appeals is final. The Court of Student Academic Appeals cannot be used to appeal exceptions committee decisions.

Students are advised to begin the petitioning process by consulting with academic advisers in their college of enrollment. There is a separate exceptions process for international undergraduate admission through the international education office.

Exemptions for Superior Achievement
Students who have completed a minimum of 12 hours at Wichita State and have a cumulative grade point average of at least 3.250 and a grade point average of at least 3.000 the previous semester may be granted several privileges:

1. They may be exempt from regulations governing the maximum number of hours allowed students during a semester;
2. They also may be exempt from college regulations, if any, governing the maximum number of hours students may take during a semester in one department. However, students shall not enroll in more than 21 hours without the permission of their college deans; and
3. They may have permission to have course prerequisites waived with the consent of the instructors of the courses and the heads of the departments in which the courses are taken.

Transition Semester
To accommodate students in their adjustment to college standards, they may be eligible for a special transition semester. The transition semester is a student’s first regular semester at Wichita State regardless of the number of hours attempted (summer session included). Students who have enrolled at another institution of higher learning in a regular term (summer term excluded) before enrolling at Wichita State are not entitled to a transition semester at WSU.

The processing of a transition semester results in grades of A, B, and C being changed to Credit (Cr), and grades of D and F being changed to No Credit (NCr). These designations have no impact on the student’s grade point average. College-level courses (numbered 100 and above) with a grade of Cr count toward graduation.

Students must meet the following requirements to be granted a transition semester:

1. The grade point average for their first regular semester must be below 2.000;
2. Their next semester of enrollment must be at WSU and they must complete at least 6 graded hours with a 2.000 or higher grade point average. “Graded hours” do not include courses taken for Audit, Credit, or Satisfactory; and
3. After grades have been issued for that next semester, students must complete a form in their college/advising center office requesting a transition semester. This request must be made before completion of any further college courses.

Students who fail to meet these requirements will not be awarded a transition semester and will be subject to the appropriate probation or dismissal standards.

Graduation
Academic Distinction
Degrees are conferred with distinction upon students who have shown excellence in scholarship. The minimum standard for graduating summa cum laude is a cumulative and Wichita State grade point average of 3.900. The minimum standard for graduating magna cum laude is a cumulative and Wichita State grade point average of 3.550. The minimum standard for graduating cum laude is a cumulative and Wichita State grade point average of 3.250. These grade point averages are frozen at the time of graduation.

Date of Catalog Requirements
Students who have not been out of college for more than two consecutive calendar years may graduate under the program requirements in effect at Wichita State when they first entered any college or university. They may not, however, be allowed to graduate under the requirements of a Wichita State Catalog in effect earlier than two years preceding their enrollment at Wichita State. They also may graduate under the requirements of any subsequent Wichita State Catalog. Guest students are considered to have entered Wichita State at the time they become guest students and are subject to the preceding provisions.

If students, including non-degree-bound students and open admission students, have had their college programs interrupted by more than two consecutive years, they will be subject to the program requirements in effect when they reenter, or, if they elect, the requirements of a later Catalog.

The Wichita State Catalog is in effect from the fall semester of the year it is published through the summer session of that
academic year. The Catalog is a guide for information only and is not a contract.

Commencement
WSU holds seven commencement ceremonies each year, one in December and six in May. All baccalaureate and master’s degree candidates for the spring ceremonies are eligible to participate in the May ceremony and all baccalaureate and master’s degree candidates for the fall semester are eligible to participate in the December ceremony. Baccalaureate and master’s degree candidates for the summer semester are eligible to participate in either the preceding May or following December ceremony.

More information may be found at the commencement Web site: wichita.edu/commencement

Diplomas are available for distribution approximately seven weeks following the close of a given semester. Degree recipients may obtain their diplomas from the registrar’s office. Diplomas will be mailed from that office upon a written, signed, request that includes the name and student identification number of the degree recipient, the complete address where the diploma is to be mailed, the appropriate mailing fee ($5 inside USA; $25 outside USA), and a readable copy of the degree recipient’s driver’s license or other government issued photo ID.

Requirements for Graduation
The university’s minimum graduation requirements for baccalaureate degrees are given below. Students should consult their college section of the Catalog for additional graduation requirements imposed by the department and college of their major. Graduate students should consult the Graduate Catalog.

Students are required to file an Application for Degree card in the office of the dean of their college at least two semesters before their expected date of graduation.

Students must have credit for 124 acceptable credit hours toward their degree. Hours of credit earned toward a degree do not include courses with grades of F, W, Au, NCr, or I. In order to graduate in eight semesters, a student must take an average of 16 credit hours per semester.

Students must have completed the general education program (described beginning page 19) or the equivalent.

Students must maintain an overall grade point average of 2.000 (transfer work included) and a grade point average of 2.000 on all work taken toward a degree at Wichita State. Furthermore, students must maintain a grade point average of 2.000 in the courses in their major field of study.

Students shall not be allowed credit toward graduation for D grade work in excess of one-quarter of their total hours.

Students must have a minimum of 45 credit hours in courses numbered 300 or above.

Students transferring from a two-year college must complete at least 60 hours of four-year college work and 45 hours of upper-division work in order to qualify for graduation from Wichita State.

At least 30 hours of course credit (A, B, C, D, or Cr) must be earned at Wichita State. Also, at least 24 of the last 30 credit hours or 50 of the last 60 credit hours must be completed at Wichita State. Exception to this regulation may be made by the university’s exceptions committee.

Students may transfer credits earned in correspondence or extension courses with the approval of their dean. However, no more than 30 hours of such credit may apply toward a bachelor’s degree and no more than 6 hours of such credit may be among the last 30 credit hours.

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

Second Bachelor’s Degree from Wichita State
Students with a bachelor’s degree from another institution may receive a second bachelor’s degree from Wichita State University upon completion of a minimum of 30 hours in residence, provided that none of the 30 WSU hours is counted in the first degree and provided that all Wichita State, college, and departmental graduation requirements are met.

Students who have received one bachelor’s degree from Wichita State University may receive a second upon completion of a minimum of an additional 30 hours in residence and upon satisfying the requirements of the department and college from which the second degree is sought. These hours are in addition to those required for the first degree.

The same hours cannot be used to satisfy the requirements for two or more majors or minors or combination thereof.

General Policies and Procedures

Release of Student Information Policy (Privacy Law)
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.

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(s) 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, financial operations, computing center, dean of students, financial aid, career services, cooperative education, planning, testing, library, college deans, academic advisers, 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/are 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 the act.

Wichita State University hereby designates the following student information as public or “directory information.”

Name, address(es), e-mail address, telephone number(s), dates of attendance, classification (freshman, sophomore, etc.), course load (full time, half time, less than half time) class type (day, day/weekend, weekend only) previous institution(s) attended, major field(s) of study, awards, honors (includes dean’s list), degree(s) conferred (including dates), past and present participation in officially recognized sports and activities, physical factors (height, weight of athletes).

The names(s) and address(es) of the student’s parent(s) 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 and sports.

Currently enrolled students may withhold disclosure of “directory information” (on an all or none basis) to non-institutional persons or organizations. Students have an option to protect their privacy and not have such information as their addresses and telephone numbers released. Forms requesting the withholding of this information are available in the Office of the Registrar, 117 Jardine Hall, and should be returned to that office. Otherwise, the university assumes a student approves 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 requesting to be excluded from the Campus Directory, which is published each fall and which is available to people outside WSU.

A Student Phone Book is also available on the WSU Web site; student names and phone number will appear there unless the above-mentioned form has been completed and submitted.

Family Educational Rights and Privacy Act (FERPA)

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: The 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 or the release, transfer, or other communication of education records of the student or the personally identifiable information contained therein, orally, or in writing, or by electronic means, or by any other means to any 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 records” 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 provision of treatment to the student and that are not available to persons other than those providing treatment except that such records may be personally reviewed by a 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 territorial jurisdiction.
   (4) Records that contain only information relating to a person after that person is 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 its 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 only because of her or his status as a student (that is, student hourly). In such cases, student employment records are education records but are to be maintained separately from other education records.

E. Legitimate Educational Interests:

The interests of university personnel who have a demonstrably 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 a question arises concerning the legitimacy of a request to review records, such question shall be referred to the vice president for campus life and university relations, and/or the vice president and general counsel.

F. Parent: Includes a parent, a guardian, or an individual acting as a parent of a student in the absence of a parent or guardian.

G. 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.

H. 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.

I. 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 the 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.

J. 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. 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 $.25 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.

C. 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.

D. 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 by the 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 or 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 or 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 notify the student in advance of compliance (unless judicial order or subpoena specifically prohibits such contact).

The university may disclose personally identifiable information from the education records of a student to appropriate parties in connection with an emergency. Disclosure of personally identifiable information from the education records of a student to appropriate parties in connection with an emergency is reasonably considered to be 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 the 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 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, as amended. Should the student be financially indebted to the university, a 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:

   (1) for requests made by the student; (2) for requests for which the student has given written consent; (3) for requests made by school officials with legitimate educational interests; (4) 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 campus life and university relations.

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:

1. The student has the right, upon reasonable request, for a brief explanation and interpretation of the record in question from the respective unit custodian.

2. The unit custodian of the challenged education record, after reviewing the record with the student, may settle the dispute informally with the student with regard to the deletion or modification of the education record. The unit custodian shall make his or her decision within a reasonable amount of time and shall notify the student of the decision.

3. In the event the unit custodian disapproves the student’s request to delete or modify the record in question, the student shall be notified by the unit custodian, in writing, of the decision and of the student’s right to a formal hearing upon the request.

   a. All requests for formal hearings by the student shall be directed to the vice president for campus life and university relations, and shall contain a plain and concise written statement of the specific facts constituting the student’s claim.

   b. 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 campus life and university relations or 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 by the hearing officer of the date, place, and time of the hearing.

   c. At the hearing the student shall be afforded a full and fair opportunity to present evidence relevant to the claim and may, at his or her expense, receive assistance or be represented by any individuals of choice.

   d. 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 campus life and university relations or 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 campus life and university relations or 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.

4. In the event the decision of the vice president for campus life and university relations is adverse to the student’s request, the student shall be notified of the opportunity to place with the education record a summary statement 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.

5. If a student challenge to the content of a given record is successful, the university shall amend the education record accordingly and so inform the student. Upon the student’s specific written request to the vice president for campus life and university relations, 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, the student should check first with the office involved and/or the office of the vice president for campus life and university relations.

If a student wishes to file a complaint with the federal government concerning the university’s failure to comply with the Privacy Act, he or 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.

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, 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.

The vice president and general counsel and the Office of Human Resources shall have primary responsibility for publication, dissemination, and implementation of this university policy.

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 67260-0205. 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.

A link to the WSU Catalog is available online at the registrar’s Web site, wichita.edu/registrar. 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, and are not responsible for, accidents or injury to students which may occur during university-sponsored activities 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.

Residency 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 Kansas 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/reenrollment and who has demonstrated, during those 12 months, the intent to make Kansas his or her permanent home. Intent is evaluated in light of: (1) the person’s statement about why she or he 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/reenrollment.”

Residents of Kansas (for fee purposes) who leave the state retain their residency as long as they return to Kansas permanently within 60 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 “exceptions” are authorized by state law to pay the equivalent of resident fees: (a) regular employees of the university and their spouses and dependent children (does not apply to student assistants and graduate assistants); (b) persons on full-time active military duty, stationed in Kansas, or members of the Kansas Air or Army National Guard, and their spouses and dependent children; (c) persons who were in active military service in Kansas and who were discharged or retired in Kansas; (d) persons who graduated from a four-year program at an accredited Kansas high school within six 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 a Kansas resident for fee purposes; (f) persons who were recruited to, or transferred to Kansas within the last 12 months for a full-time job, and their spouses and dependent children; and (g) any person who is attending or has attended Haskell Indian Nations University and who is enrolled as an American Indian on a tribal membership roll maintained by the Bureau of Indian Affairs of the U.S. Dept. of the Interior.

The details about each of these exceptions are critical and are not all on this page. Several require certification of appropriate information on a special form. None of them is
Effective July 1, 2004, a person who is residing in Kansas and would not otherwise be considered a resident of Kansas will be considered to be a resident for tuition purposes if she or he has attended three years of high school in Kansas and graduated from an accredited Kansas high school or earned a Kansas GED and she or he is not on a student visa or eligible to pay resident rates in another state. This can apply to people with a non-permanent immigration status, undocumented aliens, and former Kansans who have not been back in Kansas long enough to reestablish residency. This law does not apply to an eligible person's spouse or dependents.

Procedure: People who have been admitted as non-residents and think they are eligible to be considered residents because of this provision should contact the registrar's office. The three years of high school in Kansas (includes 9th grade), and Kansas high school graduation, must be documented. It doesn't matter when the person attended or graduated. Aliens with non-permanent resident status must document that. Aliens must sign an affidavit indicating that they will apply for permanent residency as soon as they are eligible. All students must sign an affidavit indicating that they are not eligible to pay resident rates in any other state.

Students applying for residency should contact the Office of the Registrar, 102 Jar-dine 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 or she meets these residency requirements, then he or she must apply for residency using a form available from the registrar's office. Lower fees do not necessarily 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 student. 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, because 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.

The information in this section is a summary of Kansas law. Kansas law and Kansas regulations are controlling in case of conflict.

Student Identification

Each student is identified in the university's computer system by a unique set of eight numbers and letters, called myWSU ID. This ID is assigned and communicated to students at the time of admission. A social security number is also required for everyone who has federal financial aid or is employed by the university, as they must also be identified in the system by 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 contains a unique 16 digit ISO number encoded on it and is the only means by which students can use the following services: Ablah Library, Heskett Center, athletic ticket office, student government, student health services, WSU police department.

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 Bureau of Investigation or the sheriff's office in the registrant's county of registration.

Safety

Campus safety is a priority at Wichita State. The university campus is well lighted and parking lots are regularly patrolled by WSU police officers. WSU police 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 university police station are strategically placed around the campus.

The annual security report is available at wichita.edu/annualsecurityreport. Review safety and crime prevention information in addition to daily crime logs and crime statistics at the police website, wichita.edu/police.
W. Frank Barton School of Business

Douglas Hensler, dean
100 Clinton Hall • (316) WSU-3200
wichita.edu/barton

Mission Statement: The Barton School of Business advances the knowledge and practice of business, reaches out to constituents, and prepares students to successfully compete in the global entrepreneurial marketplace. In pursuit of our mission, we are committed to integrity, excellence, and collegiality.

The vision of the Barton School of Business is to be nationally recognized for developing entrepreneurial business leaders for the global marketplace.

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 contribution 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, and 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 learning environments 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 the 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.

Goal: 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 urban 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 156 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 (CEDBR) 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 in government, education, business, and economic development organizations.

The CEDBR 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 & Certificates Offered

Undergraduate

Bachelor of Business Administration
The undergraduate curriculum of the Barton School of Business leads to the Bachelor of Business 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/major 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), 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.

Certificates

A graduate certificate in enterprise systems and supply chain management is offered jointly with the College of Engineering.

Business Emphases in Other University Programs

Students in the Fairmount College of Liberal Arts and Sciences may major in economics. Students from all colleges may minor in accounting, business administration, economics, entrepreneurship, finance, international business, management, management information systems, 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 the 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 public affairs. The major prepares students for careers in international organizations within 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 coursework 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 college hours. Failure to complete this requirement will bar a student from enrolling in upper-division business courses.

Advanced standing: students who qualify for advanced standing have (1) completed 60 credit hours; (2) a cumulative and WSU grade point average of 2.250; (3) completed 6 hours of financial and managerial accounting, 6 hours of macro and micro economics, business statistics, business calculus, and a business computer course; (4) declared a professional major in the school; and (5) completion of all parts of the Barton School Rising Junior Test. For degree-seeking students in the Barton School of Business, advanced standing is a prerequisite for all upper-division courses in the school.

Transfer students planning to transfer into the Barton School of Business from another institution to obtain the BBA must complete BADM 301, Transferring to the Barton School of Business, in their first semester at WSU. Transfer students should be aware that 50 percent of their business coursework must be taken at Wichita State University.

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 2.250 and they have attempted at least 6 hours at Wichita State University. Probation is removed when their cumulative and WSU grade point average reaches the 2.250 level. Students remain on probation if they earn a 2.250 or better grade point average in the semester during which they are on probation, but their cumulative or WSU grade point average remains below 2.250.

Students on probation are dismissed from the Barton School of Business if they fail to meet the requirements of their probationary status. Following dismissal, students will not be allowed to take business courses. Students must apply to the Barton School of Business exceptions committee to be considered for readmission on a final probationary status. Application should be made in the student records office, 106 Clinton Hall.

Limitations on Student Load

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

All Barton School of Business students are limited to enrollment in one course during a summer presession, 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 adviser.

Business students may enroll in 1 hour of co-op per 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. (A higher GPA may be required by their major area.) 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. See the business coordinator in the cooperative education office for more information.

**Advising**
The focus of advising in the Barton School of Business is to help students progress toward their educational objectives.

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

**Undergraduate Academic Advising Center** (106 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** (114 Clinton Hall). The Student Records Office maintains a complete and up-to-date file for each student admitted to the Barton School of Business.

**Types of Advising Assistance Available**

**Transcript Evaluation.** Two aspects of transcript evaluation affect students: (1) the evaluation of coursework to be transferred to 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, 114 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 Wichita State University Schedule of Courses and Catalog in consultation with a faculty adviser or an adviser in 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 adviser.

**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 Special Advising Assistance**

**Office of the Dean** (100 Clinton Hall). Students should come to the Office of the Dean for special advising assistance that cannot be resolved at the business academic advising center 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.

**Academic Honesty**
The faculty of the Barton School of Business strongly endorse the statement on academic honesty appearing in the Student Code of Conduct.

**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 52 hours of coursework 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;
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 144/242; 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 WSU;
6. Complete a minimum of 45 credit hours at the upper division level;
7. Complete the Barton School exit survey; and
8. Complete BADM 101 and 102, Becoming a Business Student I & II; or BADM 301, Transferring to the Barton School of Business.

Three levels of requirements must be completed to receive a BBA: (1) university general education and graduation requirements, listed in the General 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**

BADM 101–102 Becoming a Business Student I & II
MATH 111 College Algebra*
MATH 144 Business Calculus
ENGL 101–102 College English I–II*
COMM 111 Public Speaking*
BADM 160 Business Software
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**

ENTR 310C The Entrepreneurial Experience
FIN 340 Finance
IB 333 International Business
MGMT 360 Principles of Management
MKT 300 Marketing
Upper-division business law course
Major courses

**Senior Year**

MIS 395 Management Information Systems for Business
DS 350 Introduction to Production and Operations Management
MGMT 681 Strategic Management
Major courses
Remaining electives
Students graduating from the Barton School will take at least one behavioral sciences course from the following list: IB 600, MGMT 462, 463, 661, 662, 680; MKT 405; PSY 111; SOC 111.

Students planning to enroll in upper-division business courses (courses numbered 300 to 600) must have completed 60 semester credit hours and met the requirements for advanced standing.

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*
      BADM 160, Business Software*
   B. Behavioral Sciences
      MGMT 360, Principles of Management
   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 231, Intro. Business Statistics*
      ECON 232, Statistical Software Applications for Business

II. Environment of Business—provides an understanding of the perspectives that form the context for business
   BLAW 431, Legal Environment of Business or BLAW 635, Law of Commercial Transactions or BLAW 636, Law of Business Associations
   ENTR 310, The Entrepreneurial Experience
   IB 333, International Business

III. Business Functions
   MKT 300, Marketing
   FIN 340, Financial Management I
   DS 350, Introduction to Production and Operations Management
   MIS 395, Management Info Systems

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 102, and COMM 111). These courses must be completed with a grade of C or better within the first 48 hours of college work.

* 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. The minimum GPA for a minor field of study shall be the same as the minimum GPA 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>ENGL 210, Composition: Business, Professional &amp; Technical Writing</td>
<td></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 560, Accounting Info. Systems</td>
<td></td>
</tr>
<tr>
<td>ACCT 640, Principles of Auditing</td>
<td></td>
</tr>
<tr>
<td>ACCT 492 Internship in Accounting</td>
<td></td>
</tr>
<tr>
<td>ACCT 610 Financial Accounting &amp; 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>

Note: Students may substitute up to 6 credit hours within the five areas listed above with academic advisor's consent.

Co-op Credit: Students may count up to 6 hours of co-op credit toward the business administration major.

Electives: Selected from any of the above or other upper-division courses in the Barton School of Business. These may be "concentrated" or spread over a number of different disciplines

Business Administration Minor

A minor in business administration is available to any student who is not pursuing a degree in the Barton School of Business. A minimum of 15 hours in residence and a GPA of at least 2.250 are required. The minor consists of the following:

<table>
<thead>
<tr>
<th>Course</th>
<th>Hrs.</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACCT 210, Financial Accounting</td>
<td></td>
</tr>
<tr>
<td>ECON 201, Prin. of Macro/Micro Econ</td>
<td>3</td>
</tr>
<tr>
<td>BLAW 431, Legal Environment of Bus</td>
<td></td>
</tr>
<tr>
<td>FIN 340, Financial Management</td>
<td></td>
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<tr>
<td>MGMT 360, Principles of Management</td>
<td></td>
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<tr>
<td>MKT 300, Marketing</td>
<td></td>
</tr>
</tbody>
</table>

Note: Students may substitute up to 6 hours within the five areas listed above with academic advisor's consent.
Economics Major
Department of Economics

A major requires a minimum of 21 upper-division hours in economics beyond the college core. Students who plan to major in economics should consult with the School of Business. The following courses are required and must be included in the 124 hours:

Course ........................................ Hrs.
ECON 301 Intermediate Macroeconomics ....... 3
ECON 302 Intermediate Microeconomics ....... 3
Upper-division electives (at least 9 hrs. in economics, another 6 with adviser 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 Principles of Real Estate .......... 3
ECON 301 Intermediate Macroeconomics .... 3
ECON 302 Intermediate Microeconomics .... 3

one of the following:
ECON 340 Money and Banking .......... 3
ECON 688 Urban Economics .......... 3

Electives from the following ................. 9 hrs.
RE 438 Real Estate Law ................. 3
RE 611 Real Estate Finance .......... 3
RE 614 Real Estate Appraisal .......... 3
RE 618 Real Estate Investment Analysis .. 3
RE 619 Urban Land Development ....... 3
One Economics Elective, 300 or above ... 3
A maximum of 3 credit hours of RE 481 may be used in the emphasis in Real Estate.

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 hours 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 Management

The entrepreneurship major requires 21 upper-division hours beyond the business core. Several of the courses in the major must be taken in a specific sequence: ENTR 310 (business core course,) then ENTR 440, then ENTR 455, finally ENTR 668. Students who plan to major or minor in entrepreneurship should contact the Center for Entrepreneurship for scholarship information. In addition to the major, there are two options for minors in entrepreneurship: a minor that requires advanced standing in the Barton School, and a minor for non-business majors that does not require advanced standing.

Required courses ............................... Hrs.
ENTR 440 New Venture Feasibility Analy .... 3
ENTR 455 Entrepreneurial Finance ....... 3
ENTR 620 Growing and Managing an Entrepreneurial Firm ....... 3
ENTR 668 Developing a Successful Business Plan ....... 3

Electives ........................................ 9 hrs.
ACCT 320 Accounting for Decision Making and Control ....... 3
BLAW 636 Law of Business Associations .... 3
ENTR/MKT 403 Marketing Research ....... 3
ENTR/MKT 420 Developing a Marketing Plan ....... 3
ENTR 491 Independent Study in Entrepreneurship ....... 1-3
ENTR 492 Internship in Entrepreneurship ....... 1-3
ENTR/MKT 606 New Product & Technology Development ....... 3
ENTR/MKT 608 Selling & Sales Force Mgmt .... 3
ENTR 669 Special Topics in Entrepreneurship ....... 3
ENTR 690S Project SIFE—Students in Free Enterprise ....... 3
FIN 440 Financial Management II ....... 3
HRM 466 Fundamentals of Human Resource Management ....... 3
MGMT 462 Leading and Motivating ....... 3
MKT 404 Retail Management ....... 3
MKT 601 International Marketing ....... 3
MKT 607 Promotion Management ....... 3
RE 310 Principles of Real Estate ....... 3

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

Entrepreneurship core ........................ 12 hours
ENTR 440 New Venture Feasibility Analy .... 3
ENTR 455 Entrepreneurial Finance ....... 3
ENTR 620 Growing and Managing an Entrepreneurial Firm ....... 3
ENTR 668 Developing a Successful Business Plan ....... 3

Real estate core ................................ 9 hours
RE 310 Principles of Real Estate ....... 3
RE 619 Urban Land Development ....... 3

One upper-division real estate course chosen from:
RE 438 Real Estate Law ....... 3
RE 611 Real Estate Finance ....... 3
RE 614 Real Estate Appraisal ....... 3

Entrepreneurship Minor

A minor in entrepreneurship is available in two forms: one intended for students majoring in another area of business, and one intended for students with majors outside the Barton School of Business. Students in the Barton School are not eligible for the non-business minor.

Entrepreneurship Minor—Business Students. This minor consists of 12 upper-division hours of entrepreneurship courses; students in this minor must have advanced standing in the Barton School of Business. The student must complete 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.

Entrepreneurship Minor—Non-business students. The non-business entrepreneurship minor consists of 12 hours of required background courses and 9 hours in entrepreneurship, including ENTR 310, and 6 hours of electives in entrepreneurship chosen from the list below. Students in the non-business entrepreneurship minor must complete all background courses before starting the elective courses, and must complete all upper-division courses in the minor at WSU, with a minimum of 2.250 GPA in all the courses in the minor.

General Education Background Courses:
MATH 111 College Algebra ....... 3
ECON 201 Principles of Macroeconomics .... 3

Required Business Background Courses:
ACCT 210 Financial Accounting ....... 3
ENTR 310 The Entrepreneurial Experience .... 3
FIN 340 Financial Management I ....... 3
Electives ........................................ 6 hours
ENTR 420 Developing a Marketing Plan .... 3
ENTR 440 New Venture Feasibility Analy .... 3
ENTR 455 Entrepreneurial Finance ....... 3
ENTR/MKT 606 New Product & Technology Development ....... 3
ENTR 620 Growing and Managing an Entrepreneurial Firm ....... 3
ENTR 668 Developing a Successful Business Plan ....... 3

Finance Major

Department of Finance, Real Estate, & 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 .............................. Hrs.
FIN 440  Financial Management II  .... 3
FIN 660  Cases in Finance  ................. 3

Electives, from the following .......................... 15
FIN 620  Investments  .............................. 3
FIN 622  Futures and Options Markets  ...... 3
FIN 625  International Financial Management ........................................... 3
FIN 631  Fixed Income Securities & Markets .............................................. 3
FIN 632  Bank and Financial Institution Management ................................... 3
FIN 650  Financial Modeling ...................... 3
FIN 675  Spreadsheet Modeling for Decision Making ................................. 3
RE 611  Real Estate Finance ..................... 3
RE 618  Real Estate Investment Analysis .. 3

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 ................................. . Hrs.
RE 310  Principles of Real Estate  .......... 3
FIN 440  Financial Management II  .... 3
and one of the following:
RE 611  Real Estate Finance ................. 3
RE 618  Real Estate Investment Analysis .. 3

Electives, from the following ....................... 9
RE 438  Real Estate Law  .......................... 3
RE 611  Real Estate Finance ..................... 3
RE 614  Real Estate Appraisal ................. 3
RE 618  Real Estate Investment Analysis .. 3
RE 619  Urban Land Development ......... 3

One finance elective, 300 or above .......... 3

A maximum of 3 credit hours of co-op may be counted in the finance or finance-emphasis real estate major.

Finance Minor
A minor in finance consists of 15 hours, including ACCT 210, FIN 340, 440, and 6 additional hours of finance courses (real estate courses will not count). At least 9 hours of upper-division finance courses must be taken at WSU. A minimum GPA of 2.250 in the minor courses is required. Co-op credits may not be counted toward the minor in finance.

Human Resource Management Minor
Department of Management

Required Courses ................................. . Hrs.
HRM 466  Fundamentals of Human Resource Management .......................... 3
HRM 664  Labor Relations .................................. 3
HRM 666  Human Resource Staffing ........................................... 3
HRM 668  Compensation ........................................... 3
HRM 669  Training and Development ........................................... 3

Electives, from the following:.................... 6
MGMT 462  Leading and Motivating Organizations
MGMT 460  Designing Effective Organizations
MGMT 463  Building Effective Work Teams
MGMT 464  Communicating Effectively in Organizations
MGMT 661  Coaching, Developing, and Mentoring
MGMT 662  Managing Workplace Diversity

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

Human Resource Management Minor
As a minor in Human Resource Management consists of 15 hours, including HRM 466 and at least 2 of the following courses: HRM 664 (Labor Relations), HRM 666 (Human Resource Staffing), HRM 668 (Compensation), HRM 669 (Training and Development). Other courses that may be used to complete the minor include MGMT 463, 661, and 662; and ECON 660, and 663. Other courses may be used to complete the minor with the consent of the department. All of the courses in this minor must be completed at WSU with at least a 2.250 GPA.

This minor is not available to students majoring in areas outside the Barton School of Business.

International Business Major
Department of Management

Students majoring in international business must make three choices early in their program:
1. Regional emphasis: Latin America, Europe, or Asia Pacific. This choice dictates language and cultural/area studies choices.
2. Language. Depending on regional emphasis, there may be two or more language options.

Students majoring in international business are also required to have an international experience: either spend a semester abroad at a university in their chosen region, or participate in an academic summer study tour to their region.

International Business Major

Required Courses ................................. . Hrs.
IB 561/ECON 672  International Economics and Business ......................... 3
IB 600  International Management .................... 3
IB 601/MKT 601  International Marketing .................... 3
IB 625/ECON 674/FIN 625  International Financial Management .................. 3

Language courses: a minimum of 10 hours of an appropriate foreign language is required. IB majors who already have language skills beyond the elementary level should consult with an adviser. They can use these hours either to obtain a minor in their language, or to take other classes toward their degree.

Directed electives
IB majors must take a minimum of 9 hours from the following courses chosen with the consent of their adviser (see Catalog for course descriptions):
IB 400  International Purchasing
IB 481  Cooperative Education
IB 491  International Business Independent Study
IB 492  International Business Internship
IB 691  Global Skills for Business Mgrs.
DS 665  Supply Chain Management
POLS 220  Intro to International Relations
POLS 226  Comparative Politics
POLS 320  Developing World
POLS 336  International Organizations
POLS 370  European Politics
POLS 390  Special Topics
POLS 523  Government and Politics of Latin America
POLS 524  Politics of Modern China
POLS 533  US Foreign Policy
POLS 575  Latin American International Politics
ANTH 303  World Cultures or ANTH 354  China: People and Culture or ANTH 356  Japan: People and Culture (may be taken as culture/area studies)
MKT 403  Marketing Research or MKT 405  Consumer Behavior
History: History courses approved by an adviser

Language courses: 200-level and above
International experience: All IB majors must have an international experience. The preferred option is to spend a semester at a university in the student’s region. An alternative is an academic international study tour to the student’s region. Students may count up to 6 credit hours of international experience toward their directed electives.

Business Minor
IB students must achieve a minor in the Barton School. Available minors are: accounting, economics, entrepreneurship, finance, human resource management, management, management information systems, marketing, operations management.

Note for international students: International students who are already studying
abroad at WSU or who have transferred to WSU from another country may be deemed to have met the international experience requirement. International students who choose their home region need to work with an adviser to plan their courses to fulfill the language and cultural/area studies requirements. It is recommended that non-English speakers choose English language courses and courses on U.S. culture, history, and/or political systems to fulfill these requirements. International students who choose a regional emphasis outside their home region are required to fulfill the same language and cultural/area studies requirements as domestic students.

**Management Major**

**Department of Management**

**Required Courses**

<table>
<thead>
<tr>
<th>Course</th>
<th>Hrs.</th>
</tr>
</thead>
<tbody>
<tr>
<td>MGMT 460 Designing Effective Org</td>
<td>3</td>
</tr>
<tr>
<td>MGMT 462 Leading &amp; Motivating</td>
<td>3</td>
</tr>
<tr>
<td>MGMT 463 Bldg Effective Work Teams</td>
<td>3</td>
</tr>
<tr>
<td>HRM 466 Fund of HR Mgmt</td>
<td>3</td>
</tr>
</tbody>
</table>

**Elective courses**

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

<table>
<thead>
<tr>
<th>Course</th>
<th>Hrs.</th>
</tr>
</thead>
<tbody>
<tr>
<td>MGMT 430 Business, Government, &amp; Society</td>
<td>3</td>
</tr>
<tr>
<td>MGMT 460 Designing Effective Organizations</td>
<td>3</td>
</tr>
<tr>
<td>MGMT 464 Communicating Effectively in Organizations</td>
<td>3</td>
</tr>
<tr>
<td>MGMT 661 Coaching, Developing, and Mentoring</td>
<td>3</td>
</tr>
<tr>
<td>MGMT 662 Managing Workplace Diversity</td>
<td>3</td>
</tr>
<tr>
<td>MGMT 680 Making Effective Decisions</td>
<td>3</td>
</tr>
<tr>
<td>HRM 664 Labor Relations</td>
<td>3</td>
</tr>
<tr>
<td>HRM 666 Human Resource Staffing</td>
<td>3</td>
</tr>
<tr>
<td>IB 600 International Management</td>
<td>3</td>
</tr>
<tr>
<td>IB 601 International Marketing or MKT 601</td>
<td>3</td>
</tr>
<tr>
<td>IB 625 International Financial Mgmt or ECON 674 or FIN 625</td>
<td>3</td>
</tr>
<tr>
<td>IB 561 International Economics and Business or ECON 672</td>
<td>3</td>
</tr>
<tr>
<td>ENTR 440 New Venture Feasibility Analy</td>
<td>3</td>
</tr>
<tr>
<td>ENTR 620 Growing and Managing an Entrepreneurial Firm</td>
<td>3</td>
</tr>
</tbody>
</table>

**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, 460, 462, 464, 680, 681; IB 333, 600; HRM 466, 664, and 666. 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.

**Operations Management Minor**

A minor in operations management consists of 9 hours of required courses: DS 350, 655, 675; and 6 hours chosen from the following electives: DS 400, 660, 665, 690; MGT 450, and 650.

**Management Information Systems Major**

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

The MIS major consists of the following courses. Note: MIS majors are not required to complete MIS 395 in the business core.

**Required Courses**

<table>
<thead>
<tr>
<th>Course</th>
<th>Hrs.</th>
</tr>
</thead>
<tbody>
<tr>
<td>MIS 310 Fundamentals of Programming</td>
<td>3</td>
</tr>
<tr>
<td>MIS 325 Data Comm. and Computer Networks</td>
<td>3</td>
</tr>
<tr>
<td>MIS 600 Database Management Sys</td>
<td>3</td>
</tr>
<tr>
<td>MIS 605 Systems Analysis and Design</td>
<td>3</td>
</tr>
</tbody>
</table>

**Choose one of the following:**

| MIS 615 Fund. of Data Structures, File Design and Access | 3 |
| MIS 610 Database and Web Prgm | 3 |

**Electives, from the following:**

<table>
<thead>
<tr>
<th>Course</th>
<th>Hrs.</th>
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<tr>
<td>MIS 615 Fund. of Data Structures, File Design and Access</td>
<td>3</td>
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<tr>
<td>MIS 610 Database and Web Prgm</td>
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<td>MIS 600 Database Management Sys</td>
<td>3</td>
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<tr>
<td>MIS 605 Systems Analysis and Design</td>
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<td>3</td>
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<tr>
<td>MIS 605 Systems Analysis and Design</td>
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</table>

Up to two non-MIS courses may be used toward the MIS major.

**Management Information Systems Minor**

A minor in MIS consists of 15 hours, including MIS 310, 325, 450, and 495; and one class chosen from MIS 315, 605, 610, 650, 690; DS 655, 660, 665, and 675. Co-op credits may not be counted toward the minor. At least 9 hours of these courses must be taken at WSU with at least a 2.250 GPA.

**Marketing Major**

**Department of Marketing**

**Required Courses**

<table>
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<tr>
<th>Course</th>
<th>Hrs.</th>
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<tr>
<td>MKT 403 Marketing Research</td>
<td>3</td>
</tr>
<tr>
<td>MKT 405 Consumer Behavior</td>
<td>3</td>
</tr>
<tr>
<td>MKT 609 Marketing Programs</td>
<td>3</td>
</tr>
</tbody>
</table>

**Marketing Minor**

A minor in marketing consists of 15 hours, including MKT 300, 405, and 609, and 6 hours of upper-division marketing courses chosen from MKT 403, 404, 407, 601, 604, 605, 606, 607, and 608. 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.

**Real Estate Emphasis**

An emphasis in real estate is available to students majoring in economics, entrepreneurship, finance, or marketing. See those 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 500 to 699 are available 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 Academics 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.

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: completion of ACCT 220 and BADM 160 with a grade of C (2.000) or better, advanced standing, junior standing.

ACCT 410. Financial Accounting and Reporting: Equities (3). A continuation of ACCT 310. Emphasizes liabilities and equity. Prerequisites: completion of ACCT 310 with a grade of C (2.000) or better, advanced standing, junior 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: completion of ACCT 310 with a grade of C (2.000) or better, advanced standing, junior standing.

ACCT 481. Cooperative Education (1–3). 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/NoCr only. Prerequisites: junior standing and 2.250 GPA.

ACCT 491. Independent Study in Accounting (1–3). Individual study for Cr/NoCr only. Prerequisites: 2.750 GPA in accounting, junior standing, advanced standing, and School of Accounting consent.

ACCT 492. Internship in Accounting (3). Offered Cr/NoCr only. Prerequisites: 2.750 GPA in accounting, junior standing, advanced standing, and School of Accounting 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: completion of ACCT 220, 310, and BADM 160, all with a grade of C (2.000) or better, advanced standing, junior 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, hedging, financial instruments, and emerging issues in financial accounting and reporting. Prerequisites: completion of ACCT 410 with a grade of C (2.000) or better, advanced standing, junior 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-setting strategies and incentives. Prerequisites: completion of ACCT 320 with a grade of C (2.000) or better, advanced standing, junior standing.

ACCT 630. Taxation of Business Entities (3). Studies the federal tax law as it applies to corporations, partnerships, and other business entities. Examines the effect of taxation on business decisions. Prerequisites: completion of ACCT 430 with a grade of C (2.000) or better, advanced standing, junior 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: completion of ACCT 410 and 560 with a grade of C (2.000) or better, advanced standing, junior standing.

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

ACCT 777. Review for Professional Examinations (1–6). 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 credit hours is permitted. Credit for this course does not count for degree credit in the School of Accountancy or Barton School of Business. Prerequisite: permission of the School of Accountancy.

ACCT 781. Cooperative Education (1). Provides the graduate student with a field placement which integrates theory with a planned and supervised professional experience. Programs must be formulated in consultation with appropriate graduate faculty. May be repeated for credit up to 3 hours. May not be used to fulfill degree requirements. Offered Cr/NoCr only.

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

Business Administration—General (BADM)

Lower-Division Courses

BADM 101. Becoming a Business Student I (1). Required orientation class for new business students who are first-time freshmen. Covers various university policies, academic requirements for a degree, campus resources, study skills, and career opportunities. Facilitates connections with faculty, staff, and other students. A student may be exempted from this class by taking the placement test at the Barton School of Business Advising Office with a grade of 80 percent or better.

BADM 102. Becoming a Business Student II (1). Required continuation of BADM 101 for second-semester freshmen who are planning for their sophomore year in the Barton School of Business. Involves students in more in-depth career, academic planning and involvement with the Barton School of Business community. Prerequisite: BADM 101.

BADM 160. Business Software (3). Provides online instruction in Microsoft Word, Excel, PowerPoint, Outlook, and Access. Students with significant skills in one or more of these programs may be able to test out of part or all of the course. Required for advanced standing in the Barton School; Barton School students should take this course during their freshman year.

BADM 190. Selected Topics (1–3). Repeatable with departmental consent.

BADM 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 in-depth information focused on marketing oneself to an employer. Topics include resume development, networking skills, interviewing survival skills, 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 2.500 GPA, at least 12 hours completed.
BADM 281. Cooperative Education (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.

BADM 290. Selected Topics (1–3). Repeatable with departmental consent.

Upper-Division Course

BADM 301. Transferring to the Barton School of Business (1). Required for students transferring from other institutions who are planning to pursue a business degree. Designed to offer a smooth transition from a prior institution, to integrate the student into the WSU campus, and provide information about various university policies, academic requirements for a degree, campus resources, study skills, and career opportunities in the field of business.

BADM 490. Selected Topics (1–3). Repeatable with departmental consent.

Business Law (BLAW)

Department of Finance, Real Estate, & Decision Sciences

Lower-Division Courses

BLAW 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.

BLAW 190. Selected Topics (1–3). Repeatable with departmental consent.

Upper-Division Courses


BLAW 431. Legal Environment of Business (3). Introduction to the legal environment in which businesses operate. Considers the institutions and processes related to business law, and the major frameworks of private and public law, including contracts and commercial transactions, business organizations, business torts and crimes, and regulatory law. Addresses ethical and social responsibility considerations as an integral aspect of legal regulation. Prerequisites: junior standing, advanced standing.

BLAW 481. Cooperative Education (1–3). 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.

BLAW 491. Independent Study (1–5). Offered Cr/NCr only. Closed to graduate credit. Prerequisites: junior standing, advanced standing, and 2.750 GPA in business law.

BLAW 492. Internship in Business Law (1–3). Offered Cr/NCr only. Prerequisites: junior standing, advanced standing, 2.750 GPA in business law, and departmental consent.

Courses for Graduate/Undergraduate Credit

BLAW 602. Legal Environment of International Business (3). Cross-listed as IB 602. Analysis of legal and regulatory issues affecting import-export transactions, licensing and technology transfer, and international sales of services. Prerequisite: IB 333.


BLAW 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.

BLAW 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.

Decision Sciences (DS)

Department of Finance, Real Estate, & Decision Sciences

Lower-Division Courses

DS 190. Selected Topics (1–3). 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. Prerequisites: junior standing, advanced standing.


DS 400. International Purchasing (3). Cross-listed as IB 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 are 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.

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/NCr only. Prerequisites: junior standing and 2.250 GPA.

DS 491. Independent Study (1–5). Offered Cr/NCr only. Closed to graduate credit. Prerequisites: junior standing, advanced standing, and 2.750 GPA in decision sciences.

DS 492. Internship in Decision Sciences (1–3). Offered Cr/NCr only. Prerequisites: junior standing, advanced standing, and 2.750 GPA in decision sciences, and departmental consent.

Courses for Graduate/Undergraduate Credit

DS 655. Project Management (3). A hands-on and project-based technology course establishes fundamental guidelines for defining the process of project management and designing time-constrained projects. Covers core methodology for managing complex projects on time. Uses a software tool. Prerequisites: DS 350 with a grade of C+ (2.300) or better, junior standing, advanced standing.

DS 660. Enterprise Systems (3). Introduces the underlying need for integration in organizations that have traditionally operated with fragmented information systems. The focus is on ERP (enterprise resource planning) systems, but other e-commerce systems are discussed. Includes an overview of ERP systems, business processes, and implementation issues. Covers relevant software packages. Not open to students with credit in DS 860. Prerequisites: DS 350 with a grade of C+ (2.300) or better, junior standing, advanced standing.

DS 665. Supply Chain Management (3). Emphasizing global integration and coordination, this introductory course delivers the basic concepts and decision making models critical to managing a global supply chain. Topics covered include supply chain design and operation, logistics strategies and network configuration, inventory management and risk pooling, the role of information technology in the supply chain, warehousing and material handling systems, supplier relations, and strategic alliances. Not open to students with credit in DS 865. Prerequisites: DS 350 with a grade of C+ (2.300) or better, junior standing, advanced standing.

DS 675. Spreadsheet Modeling for Decision Making (3). Cross-listed as FIN 675. Adopts a practical spreadsheet-based approach to the modeling of a wide variety of business problems. Concentrates on problem solving in an interdisciplinary context and developing spreadsheet skills. Not open to students with credit in DS 875 or FIN 675. Prerequisites: DS 350 and FIN 340 each with a grade of C+ (2.300) or better, junior standing, advanced standing.

DS 690. Seminar in Selected Topics (1–5). Repeatable with departmental consent. Prerequisites: DS 350 with a grade of C+ (2.300) or better, junior standing, advanced standing.

DS 750. Workshop in Decision Sciences (1–4). Prerequisite: junior 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. Because 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, 301, 302, 304, 800, 801, 802, 804
Industrial organization and regulated industries—ECON 617
History and comparative systems—ECON 625, 627
Statistics and econometrics—ECON 231, 232, 702, 731, 803, 831
Monetary and financial economics; money and banking—ECON 340, 740, 840, 847
Public finance—ECON 765, 865
Labor and manpower economics—ECON 660, 663
Economic growth and development; international economics—ECON 672, 674, 870
Urban, environmental and regional economics—ECON 688
Directed study; thesis—ECON 491, 692, 750, 891, 892, 896.

Lower-Division Courses

ECON 201. Principles of Macroeconomics (3).
General education introductory course. An introduction to the determinants of income, output, and employment. Emphasizes various macroeconomic theories and related policies. Includes money, banking, and the macroeconomic effects of the global economy.

ECON 202. Principles of Microeconomics (3).
General education further study 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. Prerequisite: 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, BADM 160.

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. Prerequisites: ECON 201 and 202, 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: ECON 201 and 202, 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 in business decision making, and decision making with risk. Prerequisites: ECON 201 and 202, 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. Prerequisites: ECON 201 and 202, 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. Prerequisites: ECON 201 and 202, junior standing.

ECON 400. Economics in the Classroom Part I (3).
Prepares social studies teacher candidates to teach the economic concepts contained in the Kansas social studies standards for middle schools. Open only to students in the College of Education. Prerequisite: admission to teacher education, or instructor's consent.

ECON 401. Economics in the Classroom Part II (3).
Prepares social studies teacher candidates to teach the economic concepts contained in the Kansas social studies standards for high schools. Open only to students in the College of Education. Prerequisites: admission to teacher education and ECON 400, or instructor's consent.

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: ECON 201 and 202, 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: ECON 201 and 202, junior standing, departmental consent, and 2,750 GPA in economics.

Courses for Graduate/Undergraduate Credit

ECON 606. Experimental Economics (3).
Laboratory experiments allow economists to stress test economic theory in controlled conditions, use observed human behavior to inform new theories, test alternative economic policies and design market mechanisms and institutions to address real-world problems. Students build an understanding of experimental economics through a survey of experimental literature, critical analysis of experimental research papers, participation in in-class experiments, and designing a research experiment of their own.

ECON 611. Economics of Sports (3).
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 617. Economics of Regulation (3).
Studies 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. Prerequisites: for undergraduate students, ECON 201, 202, and junior standing; for graduate students, the equivalent of ECON 201 and 202.

ECON 618. Economic Thinking in an Organization (3).
Students develop an understanding of the foundations of prosperity, along with competence in applying a basic toolkit of economic analysis to business situations. They use this knowledge to understand the analogs between a prosperous society and a value-creating organization.

ECON 625. Economic History of Europe (3).
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. Prerequisites: ECON 201 and junior standing.

ECON 627. Economic History of the United States (3).
Cross-listed as HIST 515. Analysis of the basic factors in economic growth. Explores agriculture, trade, and commerce; industrial development; and the changing role of the government in economic activity. Prerequisites: ECON 201 and junior standing.

ECON 660. Labor Economics (3).
Introduction to labor economics surveying both theoretical and empirical research in this field. Includes labor markets, wage determination, and human capital theory. Prerequisites: for undergraduate students, ECON 201, 202, and junior standing; for graduate students, the equivalent of ECON 201 and 202.

ECON 663. Economic Insecurity (3).
Cross-listed as GER0 663. Personal economic insecurity, such as unemployment, old age, health care, disablement, and erratic economic fluctuations. Includes costs and benefits of government action to aid in meeting such insecurities. Prerequisites: for undergraduate students, ECON 201, 202, and junior standing; for...

ECON 741. 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.

ECON 680. Urban Economics (3). Cross-listed as PADM 680. 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: for undergraduate students, ECON 201, 202, FIN 340 with a grade of C+ (2.300) or better, and junior standing; for graduate students, the equivalent of ECON 201 and 202.

ECON 692. Group Studies in Economics (1–3). Repeatable for credit with departmental consent. Prerequisites: for undergraduate students, ECON 201, 202, and junior standing; for graduate students, the equivalent of ECON 201 and 202.

ECON 702. 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 modeling techniques. Emphasizes economic applications and modeling. Prerequisites: for undergraduate students, ECON 201, 202, and junior standing; for graduate students, the equivalent of ECON 201 and 202.

ECON 731. Applied Econometrics I (3). Studies 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: for undergraduate students, ECON 201, 202, and junior standing; for graduate students, the equivalent of ECON 201 and 202.

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). Prerequisites: for undergraduate students, ECON 201, 202, and junior standing; for graduate students, the equivalent of ECON 201 and 202.

ECON 765. Public Sector Economics (3). Cross-listed as PADM 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: for undergraduate students, ECON 201, 202, and junior standing; for graduate students, the equivalent of ECON 201 and 202.

ECON 781. Cooperative Education (1). Provides the graduate student with a field placement which integrates theory with a planned and supervised professional experience. Programs must be formulated in consultation with appropriate graduate faculty. May be repeated for credit up to 3 hours. May not be used to fulfill degree requirements. Offered Cr/NCr only.

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

Entrepreneurship (ENTR)

Lower-Division Courses

ENTR 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.

Upper-Division Courses

ENTR 310. 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. Prerequisites: ENGL 101, 102, and COMM 111; junior standing; advanced standing.

ENTR 403. Marketing Research (3). Cross-listed as MKT 403. Studies 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.

ENTR 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, the student develops a marketing plan that positions the firm to achieve a competitive advantage in the marketplace. Prerequisites: ENTR 310, MKT 300, or instructor’s consent; junior standing, advanced standing.

ENTR 440. New Venture Feasibility Analysis (3). Designed to precede the feasibility of an opportunity prior to full business plan development. Students will evaluate a new business venture with a “go” or “no go” decision relative to formal business plan development. Prerequisite: ENTR 310.

ENTR 455. Entrepreneurial Finance (3). Exposes students interested in business start-up or management of a growing firm to the principles, methods and tools used in financial planning, analysis, and control of the small business enterprise. Covers short-term financial planning and control, creation of pro forma financial statements, and business valuation techniques. Presents how and where to seek financing via a variety of debt and equity sources. Prerequisites: ENTR 310, 440.

ENTR 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 2.750 GPA in entrepreneurship courses, and departmental consent.

ENTR 491. Internship in Entrepreneurship (1–3). Offered Cr/NCr only. Prerequisites: junior standing, advanced standing, 2.750 GPA in entrepreneurship, and departmental consent.

Courses for Graduate/Undergraduate Credit

ENTR 605. Technology Entrepreneurship (3). Exploration of issues surrounding the transformation of knowledge into commercially useful products, services, or viable businesses. Students are immersed in the process of moving technology from the laboratory to the marketplace using active technologies from the university, community, or national research laboratories. Students gain familiarity with concepts in the commercialization process and receive hands-on experience applying the concepts to current intellectual property, technology, and inventions. Market validation, opportunity recognition, intellectual property protection (patents, copyright, trade secrets), and valuation are central issues to which students are exposed and which they employ in the commercial-potential evaluation process. Students apply conceptual tools to the assessment of intellectual property for its potential to be licensed to existing organizations or as the basis of new venture formation. Prerequisite: junior standing.

ENTR 606. New Product and Technology Development (3). Cross-listed as MKT 606. The innovative transformation of knowledge into commercial products and services. Teams of students will assess real technologies for their commercial potential in terms of licensing and/or venture development. Examines concepts associated with new product and technology commercialization. Concepts are introduced that improve and accelerate the commercialization process, from decisions made by scientists at the research bench, through the development, patenting, and licensing of new technologies, to the formation of entrepreneurial enterprises. Prerequisite: ENTR 310.

ENTR 608. Selling and Sales Force Management (3). Cross-listed as MKT 608. 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.


ENTR 620. Growing and Managing an Entrepreneurial Firm (3). Focuses on the organization, operation, marketing, and financial management of an ongoing 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 "intrapreneurship," such as growing a division or department within a larger organization. Prerequisites: ENTR 310, and junior standing or instructor's consent, advanced standing.

ENTR 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 forma development of financial statements and the capitalization of the firm. Explains and illustrates strategies for exiting and harvesting the business. Prerequisites: ENTR 440, 455.

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

ENTR 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, & 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. Exposes 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 440. Financial Management II (3). Studies 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/NCr only. Prerequisites: junior standing, advanced standing, and 2.250 GPA.

FIN 491. Independent Study (1–5). Offered Cr/NCr 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/NCr only. Prerequisites: junior standing, advanced standing, 2.750 GPA in finance, and departmental consent.

Courses for Graduate/Undergraduate Credit

FIN 610. Insurance and Risk Management (3). Covers the concepts of insurance and risk management. Topics include risk identification and analysis, risk management, legal aspects of insurance, structure of the insurance industry, regulation, reinsurance, underwriting, financial issues and analysis, policy analysis, and an overview of many types of personal and commercial insurance including: automobile; homeowner's; property and casualty; umbrella; commercial general liability; errors and omissions; directors and officers; health insurance (including traditional indemnity, HMO and PPO); disability; long-term care; and life. Prerequisites: FIN 340 with a grade of C+ (2.300) or better, junior standing, advanced standing.

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 with a grade of C+ (2.300) or better, 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 with a grade of C+ (2.300) or better, junior standing, advanced standing.

FIN 620. Investments (3). An analysis of investment risks, financial information, and industry characteristics. Examines corporate, government, municipal, and financial institution securities and other investment types. Presents personal portfolio construction, supervision, and management. Prerequisites: FIN 340 with a grade of C+ (2.300) or better, 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 with a grade of C+ (2.300) or better, 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 with a grade of C+ (2.300) or better, junior standing, advanced standing.

FIN 631. Fixed Income Securities and Markets (3). An analysis of the market for fixed-income securities from the investor's point of view. Emphasizes pricing of these securities and an understanding of the factors that determine the structure and level of interest rates. Portfolio management techniques and the use of derivatives will also be covered. Prerequisites: FIN 340 with a grade of C+ (2.300) or better, 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 information structure, management, regulation, and operations. Covers risk management topics in detail. Prerequisites: FIN 340 with a grade of C+ (2.300) or better, 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 with a grade of C+ (2.300) or better, 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, each with a grade of C+ (2.300) or better, junior standing, advanced standing.

FIN 675. Spreadsheet Modeling for Decision Making (3). Cross-listed as DS 675. A practical spreadsheet-based approach to the modeling of a wide variety of business problems. Concentrates on problem solving in an interdisciplinary context and developing spreadsheet skills. Not open to students with credit in DS 675 or 875. Prerequisites: DS 350, and FIN 340 each with a grade of C+ (2.300) or better, junior standing, advanced standing, or instructor's consent.
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 with a grade of C+ (2.300) or better, and junior standing.

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

**Human Resource Management (HRM)**

**Department of Management**

**Upper-Division Courses**


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/NCr only. Prerequisites: junior standing, advanced standing, and 2,750 GPA.

HRM 491. Independent Study (1–5). Offered Cr/NCr 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/NCr only. Prerequisites: junior standing, advanced standing, 2,750 GPA, and grade average in HRM courses and departmental consent.

**Courses for Graduate/Undergraduate Credit**

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

HRM 666. Human Resource Staffing (3). Analysis of all phases of the selection process as implemented in private and public sector organizations. Includes an analysis of the impact of federal and state antidiscrimination 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 compensation 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 theory, 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 800 and above.

**International Business (IB)**

**Department of Management**

**Upper-Division Courses**

>IB 333. 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 systems, 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 are 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.

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/NCr only. Prerequisites: junior standing, advanced standing, and 2,250 GPA.

IB 491. International Business Independent Study (1–5). Offered Cr/NCr only. Prerequisites: junior standing, advanced standing, and 2,750 GPA.

IB 492. International Business Internship (1–3). Offered Cr/NCr 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, theory, and policy (the international economy), then explores the operations of the multinational firm within that environment. Prerequisites: ECON 201 and 202, junior standing, advanced standing.

IB 600. International Management (3). Overview of international business including strategy and organizational behavior. Equips students to manage effectively in an increasingly diverse global marketplace. Covers international strategy formulation, cross-border alliances, control and coordination systems in multinational organizations, social responsibility and ethics, culture and communication in global management, international negotiations, and management of global human resources. Prerequisites: MGMT 360, IB 333, advanced standing, junior 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 300, junior standing, advanced standing.

IB 602. Legal Environment of International Business (3). Cross-listed as BLAW 602. Analysis of legal and regulatory issues affecting import-export transactions, licensing and technology transfer, and international sales of services. Prerequisite: IB 333.

IB 625. International Financial Management (3). Cross-listed as ECON 674 and FIN 625. Studies 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 with a grade of C+ (2.300) or better, 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. Principles of Management (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 390. Special Group Studies in Management (1–3). Repeatable with departmental consent. Prerequisite: advanced standing.


MGMT 460. 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, 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 462. Leading and Motivating (3). Studies theories of human motivation and adaptation of these theories to programs in organizations. Probes concepts of authority and delegation and analyzes leadership styles. Prerequisites: MGMT 360, junior standing, advanced standing.

MGMT 463. 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. Course promotes an understanding of the organizational context of a team culture through an analysis of how teams form, and group processes that enhance goal accomplishment. Emphasizes skills necessary to manage the organization’s culture, improve group performance, and increase collaboration among team members. Prerequisites: MGMT 360, junior standing, advanced standing.

MGMT 464. Communicating Effectively in Organizations (3). 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/NCr only. Prerequisites: junior standing, advanced standing, and 2.250 GPA.

MGMT 491. Independent Study (1–5). Offered Cr/NCr only. Close to graduate credit. Prerequisites: junior standing, advanced standing, and 2.750 GPA in management.

MGMT 492. Internship in Management (1–3). Offered Cr/NCr only. Prerequisites: junior standing, advanced standing, 2.750 GPA in management, and departmental consent.

Courses for Graduate/Undergraduate Credit

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 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 products and services to diverse customers. Course examines workforce 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 668. Making Effective Decisions (3). Studies the theories of decision making. Emphasizes the factors of rational decision making and application of quantitative methods, cognitive and motivational influences, intuition, political influences, ethics, and the process of negotiation and decision making in groups along with decision implementation and learning from past decisions. Prerequisites: MGMT 360, junior standing, advanced standing.

MGMT 681. Strategic Management (3). An analysis of business problems from a strategic management perspective. A capstone course which integrates the functional areas of business, including management, marketing, 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 (1–5). 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, & 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: BADM 160 with a grade of C+ (2.300) or better, 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. Technical 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) provide the backdrop for introducing data communication concepts (OSI), standards, protocols, and technologies. Prerequisites: BADM 160, junior standing, advanced standing.

MIS 390. Special Topics in MIS (1–3). Repeatable for credit with departmental consent. Prerequisites: junior standing, advanced standing.

MIS 395. Management Information Systems (3). Studies the structure and the strategic role of computer-based information systems. Includes information resource management perspective emphasizing issues of information architecture, data integration and administration, and risk management in information systems development efforts. Prerequisites: BADM 160, junior standing, advanced standing.

MIS 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: 2.500 GPA in MIS, junior standing, and advanced standing.

MIS 491. Directed Study (1–3). Individual study for Cr/NCr only. Prerequisites: 2.750 GPA in MIS, junior standing, and advanced standing.

MIS 492. Internship in MIS (1–3). Offered Cr/NCr only. Prerequisites: 3.000 GPA in MIS, advanced standing, senior standing, and departmental consent.

Courses for Graduate/Undergraduate Credit

MIS 600. 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 electronic commerce: transaction processing, data warehousing, data mining, and distributed database management. Prerequisites: BADM 160 with a grade of C+ (2.300) or better, junior standing, advanced standing.

MIS 605. 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 600 with a grade of C+ (2.300) or better, junior standing, advanced standing.

MIS 610. 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 600 each with a grade of C+ (2.300) or better, junior standing, advanced standing.

MIS 615. Fundamentals of Data Structures, File Design and Access (3). A second course in programming emphasizing data structuring concepts necessary for building business application systems. Uses 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 with a grade of C+ (2.300) or better, junior standing, advanced standing.

MIS 650. 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 600 with a grade of C+ (2.300) or better, junior standing, advanced standing.

MIS 690. Seminar in Selected Topics (1–3). Repeatable for credit with departmental consent. Prerequisites: senior standing, departmental consent, advanced standing.

MIS 696. 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, the role of IS as a user-support entity, auditing the IS function, and emerging issues in managing the IS department. Prerequisites: MIS 605 (or concurrent enrollment), junior standing, and advanced standing.

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

Marketing (MKT)
Department of Marketing

Lower-Division Courses

MKT 190. Selected Topics (1–3). Repeatable with departmental consent.

Upper-Division Courses

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’s consent. Prerequisites: junior standing, advanced standing.

MKT 403. Marketing Research (3). Cross-listed as ENTR 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 251 and 252, 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. Clarifies new influences at work in the retailing environment. Prerequisites: MKT 300, junior standing, advanced standing.

MKT 405. Consumer Behavior (3). Studies 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 ENTR 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, the student develops a marketing plan that positions the firm to achieve a competitive advantage in the marketplace. Prerequisites: ENTR 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/NCr only. Prerequisites: junior standing, advanced standing, and 2.250 GPA.

MKT 491. Independent Study (1–5). Offered for Cr/NCr only. Closed to graduate credit. Prerequisites: junior standing, advanced standing, and 2.750 GPA in marketing.

MKT 492. Internship in Marketing (1–3). Offered for Cr/NCr only. Prerequisites: junior standing, 2.750 GPA in marketing, and instructor’s consent.

Courses for Graduate/Undergraduate Credit

MKT 601. 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 606. New Product and Technology Development (3). Cross-listed as ENTR 606. The innovative transformation of knowledge into commercial products and services. Teams of students will assess real technologies for their commercial potential in terms of licensing and/or venture development. Examines concepts associated with new product and technology commercialization. Concepts are introduced that improve and accelerate the commercialization process, from decisions made by scientists at the research bench, through the development, patenting, and licensing of new technologies, to the formation of entrepreneurial enterprises. Prerequisite: ENTR 310.

MKT 607. 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 608. Selling and Sales Force Management (3). Cross-listed as ENTR 608. 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 609. Marketing Programs (3). Studies 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 690. Seminar in Selected Topics (1–5). Repeatable with instructor’s 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, & Decision Sciences

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. 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. Prerequisites: 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 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, advanced standing, and 2.250 GPA.

RE 491. Independent Study (1–5). Offered Cr/NCr only. Closed to graduate credit. Prerequisites: junior standing, advanced standing, and 2.750 GPA in real estate courses.

RE 492. Internship in Real Estate (1–3). Offered Cr/NCr only. Prerequisites: junior standing, advanced standing, and 2.750 GPA in real estate courses.

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 with a grade of C+ (2.300) or better, 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’s 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 with a grade of C+ (2.300) or better, 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 or 611 or 618, or instructor’s 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.
The WSU College of Education is comprised of five departments whose synergy provides powerful understanding of life span development and academic innovation in living and learning. It prepares teachers, school professionals, school counselors, educational psychologists, exercise and sport professionals for 21st century careers. College faculty also contribute to the improvement of the profession at local, state, national, and international levels through teaching, research, and professional service.

The College of Education (COE) is accredited by all appropriate agencies, including the Kansas State Board of Education (KSDE), the National Council for the Accreditation of Teacher Education, the National Association of School Psychologists.

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 offers BA degree programs in teacher education, school personnel, exercise science, sport management, athletic training, and physical education.

The exercise science degree program prepares students for careers involving exercise physiology, health promotion, clinical exercise-related fields, rehabilitation, medicine, biology of exercise, research and academia, or graduate education. The Athletic Training Education Program (ATEP) prepares students for entry-level positions in the broad allied health field of athletic training and is certified by the Commission on Accreditation of Athletic Training Education.

The sport management 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. The sport management program is certified by the Sport Management Program Review Council.

Transfer Credit
Courses completed at a community college or four year institution of higher education (non-WSU) may be accepted as the College of Education program’s course equivalency at the discretion of the program faculty and upon a review by the program faculty of related issues, e.g., the transfer course content, grade earned, year course completed, etc.

Degrees & Certificates Offered

**Undergraduate**
The college offers teaching and non-teaching programs leading to the bachelor’s degree and/or to state teacher licensure at the early childhood, elementary, middle, secondary, and Pre K–12 levels. Initial Programs include:
- PreK-12
  - art
  - music (instrumental)
  - music (vocal)
  - physical education
  - French
  - Spanish
- Early childhood unified
- Elementary education
- Middle school
  - English
  - math
  - science
  - history comprehensive
- Secondary education
  - biology
  - chemistry
  - earth and space science
  - English/language arts
  - history/government
  - journalism
  - math
  - physics
  - speech & theatre

Non-teaching programs include:
- athletic training
- exercise science
- sport management

The State Board of Education regulates standards for all teaching licenses; curricula offered by the college may be altered as needed to meet changes in the KSDE requirements.

The COE recommends to KSDE those students who have met all approved program licensure requirements. 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 in Teaching (MAT), Master of Education (MEd) in counseling, curriculum and instruction, educational administration, educational psychology, exercise science, sport management, and special education; the Specialist in Education (EdS) in school psychology; and the Doctor of Education (EdD) in educational administration.

Graduate offerings include courses which help students meet requirements for state licensure or licensure as principals, supervisory personnel, district school administrators, school counselors, early childhood teachers, high school teachers, special education teachers, library media specialists, reading specialists, and school psychologists. 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 the exercise science profession.

Certificates
The College of Education offers graduate certificates in educational technology, child/play therapy, coaching, literacy, and functional aging.

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.

Advising
The College of Education faculty and staff advisers are available to assist and guide students regarding course requirements in accordance with teacher education licensure program(s) and/or degree requirements.

The COE’s Education Support Services (ESS) office staff is available to advise undergraduate students during their freshman and sophomore years, complete transcript analysis for undergraduate and/or teacher education program coursework, and maintain and update undergraduate student records.

COE faculty advise undergraduate juniors and seniors. Graduate faculty advise students pursuing a graduate degree, graduate coursework and/or degree options. Students should call the respective department housing their program area for information regarding student advising.

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 licensure programs in teacher education. Students must satisfy the following requirements to be admitted as a candidate for a Kansas teacher’s license:

1. 35 hours of basic skills and general education;
   a. 2.750 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. PSY 111;
3. STAT 370;
4. Standardized Test Requirement Note: A prospective teacher education candidate must meet only one of the

Teacher Education at Wichita State University, 2005–2006
(Released May 2007)

Pass Information
Number of program completers: 165

<table>
<thead>
<tr>
<th>Type of assessment</th>
<th># taking assessment</th>
<th># passing assessment</th>
<th>Institution pass rate</th>
<th>Kansas pass rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Assessment 2</td>
<td>119</td>
<td>117</td>
<td>98%</td>
<td>98%</td>
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<tr>
<td>Assessment 3</td>
<td>4</td>
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<td>84%</td>
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</tr>
<tr>
<td>Assessment 4</td>
<td>39</td>
<td>39</td>
<td>100%</td>
<td>97%</td>
</tr>
<tr>
<td>Aggregate: Professional Knowledge</td>
<td>162</td>
<td>156</td>
<td>96%</td>
<td>97%</td>
</tr>
<tr>
<td>Summary of Individual Assessments</td>
<td>162</td>
<td>156</td>
<td>96%</td>
<td>94%</td>
</tr>
</tbody>
</table>

Number of program completers found, matched and used in passing rate calculation: 162

*Federal regulation “Rule of Ten” protects the confidentiality of test takers.

Note: the PLT is a state required test that teacher candidates must pass successfully prior to being recommended for licensure.

Program Information
Enrollment: Number of enrolled students in the teacher preparation program:

<table>
<thead>
<tr>
<th>Full time</th>
<th>Part time</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>681</td>
<td>173</td>
<td>854</td>
</tr>
</tbody>
</table>

Student Teaching: Number of students in teacher preparation program participating in supervised student teaching:

<p>| |</p>
<table>
<thead>
<tr>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>234</td>
</tr>
</tbody>
</table>

Number of faculty supervising student teachers who were:

1) Appointed full time in professional education:
   - 7
2) Appointed part time in professional education and full time in the institution:
   - 5
3) Appointed part time in professional education and not otherwise employed by the institution:
   - 17

Student/faculty ratio for student teaching supervision:

<p>| |</p>
<table>
<thead>
<tr>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>5.08</td>
</tr>
</tbody>
</table>

Time required in student teaching by students:

1) Hours per week: 40
2) Weeks: 15/semester
3) Total hours: 640

Accreditation/State Approval
- WSU’s College of Education is accredited by the National Council for Accreditation of Teacher Education (NCATE).
- WSU is fully accredited by the North Central Association.
- "Title II Disclosure Statement. Questions about any of this information should be directed to the College of Education Dean, Wichita State University, 1845 Fairmount, Wichita, Kansas 67260-0131, (316) 978 3301."
following four standardized test requirements. The basic skills test used to fulfill his or her admission requirements must have been taken within ten (10) years from the date of his or her application to the teacher education program:
a. Preprofessional Skills Test (PPST) and minimum required scores Writing: 172; Reading: 173; Mathematics: 172; or
b. American College Testing Program (ACT) and minimum required scores Reading: 22; English: 22; Mathematics: 22; or
c. College Assessment of Academic Proficiency (CAAP) and minimum required scores Writing: 55; Reading: 56; Mathematics: 53; or
d. College Basic Academic Subjects Examination (CBASE) and minimum required scores English: 235; Reading/Writing: 235; Mathematics: 235.
5. Prospective Elementary/Early Childhood majors only must also complete two sections of the CBASE test (i.e., social studies and science) with a minimum required score. The social studies and science CBASE scores are used to affirm a candidate’s mastery of elementary education content.

6. Introduction to the Profession with Field Experience (CI 271 with grade of B or better and CI 272 with grade of S);
7. Grade Point Average (GPA) (a) Overall: 2.500; (b) 35 hours of general education coursework: 2.750; (c) WSU: 2.750 (if applicable).

The application packet is available at wichita.edu/education/ess and the Education Support Services office, 107 Corbin.

Enrollment Limits

Students enrolled in the College of Education may not enroll in more than 21 credit hours per semester during the academic year. Summer session enrollments are limited to a maximum of 6 credit hours for each four-week session or 12 credit hours during the eight-week 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 and they have attempted at least 6 hours at Wichita State University. 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 will be dismissed at the end of any semester on probation if they fail to earn a semester grade point average at or above the minimum required, and have a cumulative or overall WSU grade point average also below the minimum required. Students are not academically dismissed at the end of a semester unless they began that semester on academic probation.

Students dismissed for poor scholarship may reenroll only with the special permission of the college and university 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 adviser, and to prepare a written petition which is considered by the Standards Committee of the College of Education.

Academic advising and advanced planning require careful attention and time. Students should secure their recent academic records, complete their petitions, and have their readmission advising sessions 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.

Demonstrated suitability for professional practice, as determined by faculty, is also a consideration for remaining in good standing in programs leading to licenses or other endorsements.

Transfer Students

Transfer students admitted on probation must complete at least 12 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/assistant dean. The limitation of 12 hours also applies to students who have declared a transition semester.

All students on probation 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 participates 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 public schools to university athletic departments. 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.

Transition to Teaching Program

The Transition to Teaching program represents an alternative program for those students possessing a BA degree in a middle or secondary endorsement area (e.g., mathematics, English). 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. Please contact the Transition to Teaching program coordinator in the department of curriculum and instruction for more information.

Graduation Requirements

For graduation from the College of Education, students must satisfactorily complete all program requirements, complete a minimum of 124 credit hours of credit, have at least a 2.500 grade point average in the major field, and must have at least a 2.500 overall grade point average. Students should study any additional
requirements that may be required for their particular area of study.

Requirements for Teacher Licensure
All graduates applying for teacher licensure in Kansas are required to complete the Principles of Learning and Teaching (PLT) and the Praxis content(s) examinations established by the Kansas State Department of Education in order to qualify for a conditional license. A grade of B or better in student teaching is necessary to receive a recommendation for a teaching license.

It is possible to graduate with a COE degree, but fail to meet requirements necessary for licensure recommendation. Teacher education students assume responsibility for knowing and fully understanding their respective program assessment plan and transition point requirements which must be met successfully prior to licensure recommendation.

WSU General Education Requirements
A total of 42 hours of general education courses is required for all students in the college, including the following requirements for graduation:

I. 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 hrs)

exercise science and sports administration majors may take either MATH 111, College Algebra (3), or MATH 131, Contemporary Mathematics (3).

II. Distribution requirements
A. Fine Arts and Humanities
   - 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.
B. Social and Behavioral Sciences
   - One introductory course each from two different social and behavioral sciences 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.
C. Mathematics and Natural Sciences
   - One introductory course each from two different mathematics and natural sciences disciplines.
   - One further study course from the same discipline as one of the introductory courses above, or an issues and perspectives course in mathematics and natural sciences.

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 an interdisciplinary course or 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.

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 faculty at WSU identified a set of courses for teacher education majors. 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 (ENGL 101 and 102, COMM 111, and College Algebra).

The general education for teacher education courses are identified below:

Communication
   - ENGL 101* and 102*
   - COMM 111*

World Cultures
   - HIST 100 or 103

Anthropology
   - ANTH 102

Mathematics
   - MATH 111*
   - STAT 370* (required of all majors except math)

Natural World (choose one)
   - BIOL 370
   - GEOL 300
   - PHIL 300
   - PHYS 320 or 502

Social, Emotional, and Physical Well-being
   - PSY 111*

The Arts (choose one)
   - MUSC 160, 162, or 310
   - ARTE 303
   - ARTH 121, 122, or 124
   - THEA 143
   - ENGL 230 or 232

* required of all majors

Professional Education Requirements
Three cores of professional education coursework form the structure for all teacher education licensure areas. KSDE teacher education endorsements are available in early childhood unified, elementary, and various middle-level, secondary, and PreK–12 program areas.

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 birth 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.

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 adviser representing the College of Education and should begin as soon as possible. The teaching field should be declared as early as possible in order to keep the number of courses taken to a minimum.

Middle-Level Teaching Fields (Grades 5–8)
The middle-level programs prepare teachers to teach in grades five through eight, the range of grades covered in a typical middle school. Students desiring to teach at the middle-level must complete coursework in two of the four
available endorsement areas: i.e., math, history comprehensive, English/language arts, and/or science. In most cases each content area includes approximately 30 hours, including general education courses. In addition, candidates must complete teacher education coursework.

**Secondary Education (Grades 6–12)**

Students majoring in secondary education should meet the requirements in the general education program as defined on the respective program check sheet. In addition to the professional education coursework, students complete approximately 30 hours of content coursework in their desired endorsement area (e.g., mathematics, English).

WSU College of Education offers secondary teaching fields in biology, speech-theater, chemistry, Earth and space science, physics, English/language arts, history/government, mathematics, and journalism.

**PreK–12**

The teacher education program includes PreK–12 endorsements in foreign language, music, art, and physical education.

Check sheets that list the requirements are available in the Office of Education and Support Services (107 Corbin) and on the COE Web site at: wichita.edu/education/ess.

### Counseling, Educational and School Psychology (CESP)

The department of counseling, educational, and school psychology offers courses at the undergraduate level taken by students both in and outside the College of Education. In addition, the department offers programs leading to the Master of Education (MEd) in counseling, the MEd in educational psychology, and the Specialist in Education (EdS) in school psychology.

**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: acceptance into teacher education program, concurrent enrollment in CI 311, 320, 321.

- **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 450. 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 517. Families and Addictions (3).** Teaches basic family processes in families with a family member experiencing an addiction. The impact of the addiction on the functioning of other family members is examined, including children and adolescents. The family’s role in the recovery process is examined. Major topics include: family systems theory, alcoholic family systems and the impact of substance abuse and addiction on the family. Basic family assessment and interventions are covered. Prerequisite: PSY 111 or equivalent course.

- **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).** Introduction to statistics, including measures of central tendency, measures of variability, correlation, chi square, t-test, correlated t-test, one-way, two-way analysis of variance, and simple regression.

- **CESP 707. Child Abuse and Neglect (1).** Cross-listed 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 325 or equivalent, and CESP 701 or equivalent, or instructor’s consent.

- **CESP 750. Workshops (1–6).**

CESP 752. Special Studies in Education (1–3). For students with personnel and guidance interests. May emphasize different preselected areas during a semester. Repeatable with adviser’s consent. Prerequisite: instructor’s consent.

CESP 781. Cooperative Education (1–3). Work-related education that integrates theory with a planned and supervised professional experience. With advisor approval, a maximum of 4 credit hours may count toward degree requirements. Repeatable for credit with a maximum of 4 hours counting toward a graduate degree. Offered Cr/NCr only.

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

### Curriculum & 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 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 set of coursework for the teacher education program during their sophomore year taking CI 271 and 272 concurrently (for music majors, MUSE 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 those transition points.

Students should see an adviser in the College of Education Office of Education Support Services to determine the appropriate program and check sheet.

**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 201. 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 coursework, 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, reflection, critical thinking, problem solving, and inquiry. Students engage in activities using all of these tools. Prerequisites: 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. Graded S/U.

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 interrelationship 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 use available people 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). 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 experience interacting with public school students with various labels, abilities, and exceptionalities in a variety of settings; and become familiar with related terminology (ITT, 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. Prerequisite: admission to teacher education. Corequisites: CI 320, 321; CESP 334.

CI 316. Children’s Literature (3). Students examine literature suitable for use with children in the pre-school 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. Literacy 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 six-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, 321, and CESP 334. Corequisites: CI 317 and 427.


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. Prerequisite: admission to teacher education. Corequisites: CI 311, 321, and CESP 334.

CI 321. Introduction to Diversity: Cultural Issues (2). Students examine issues that impact providing an equitable education to all students. Disciplined inquiry and critical experience 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. Prerequisite: admission to teacher education. Corequisites: CI 311, 320, and CESP 334.

CI 402J. ISAM: Elementary Social Studies (3). Students are introduced to social studies instructional and assessment decisions and processes necessary for meeting curriculum goals and objectives in the K–6 classroom. Students will further understand instruction, assessment, and management in the context of teaching social studies. Prerequisites: CI 311, 320, 321, and 431A; CESP 334. Corequisites: CI 411J and CESP 433.


CI 411L. Prestudent Teaching: Elementary Language Arts/Reading (1). 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 in language arts/reading. S/U grading. Prerequisites: CESP 433, CI 316, 317, 402J, 402S, 411J, 411S, and 431B. Concurrent enrollment in CI 402L, 402M, and 411L is required.


CI 412. Prestudent 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; CESP 433. Corequisite: appropriate CI 454 course.

CI 413. Prestudent Teaching: Secondary (1–2). C-Journalism, E-English/Language Arts, J-History, M-Physical Education, 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; CESP 433. Corequisite: 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 or adaptations for specific students for secondary education. Prerequisites: CI 317, 318, 427. Corequisites: CI 422 and CESP 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. Corequisites: CI 421 and CESP 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. Prerequisite: middle level/secondary literacy practicum Corequisites: CI 423 and CESP 433.

CI 427. Philosophy, History, and Ethics of Education (3). Presents the major contemporary educational philosophies, the historical and social development of American education, and the ethical standards and legal issues influencing schools today. Some emphasis on the students’ examination of their own educational philosophies and ethics. Prerequisite: admission to teacher education. Corequisite: a practicum or clinical experience.

CI 431 A-D. Seminar in Elementary Education (1). This series of seminars is intended to help elementary education majors integrate information from all curricular areas. This integrated view is essential for effectively learning in elementary education and is a required element in the early to late childhood licensure program. Prerequisites: CI 402J, CI 402S, 411J, 411L, 411M, 411S; CI 431D—402L, 402M, 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 assessing the responsibilities of a teacher. Graded Cr/NCr only. Prerequisites: acceptance into teacher education; CI 322, 402J, 402L, 402M, 402S, 406. Corequisites: CI 447 and 457.

CI 447. Student Teaching: Elementary (11). Designed to allow 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, 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 402J, CI 402L, 402S, 402M, 431C, all 411 courses. Concurrent enrollment in CI 402L, 402M, 411J, 411M, 411S; CI 431D—402L, 402M, acceptance into teacher education.

CI 448. Student Teaching in Early Childhood (4–6). This field experience provides half-time participation in preschool (3- and 4-year-olds) under guidance of a master teacher and a college supervisor. Prerequisites: CI 322, 402 and 406 and 9 credit hours of early childhood education. See CI 447 for deadlines for filing an application to enroll in student teaching. Prerequisites may be waived for equivalent experience with departmental consent.

CI 499. Teacher Work Sample Lab. (1). Provides Teacher Work Sample (TWS) remediation opportunities for candidates needing to demonstrate competence in one or more areas of the TWS. Prerequisites: completion of the student teaching course with a grade of B or better.


CI 454. Instructional Strategies, Assessment, Management: Middle Level/Secondary Subject Specific (3). E-English/Language Arts, J-History/Government, M-Mathematics, S-Sciences. Addresses concepts and skills related to classroom instruction, management, and assessment or adaptations for specific students for secondary education. Prerequisites: CESP 433, appropriate ISAM course. Corequisite: appropriate prestudent practicum or practicum.

CI 455. Student Teaching Seminar: Secondary (1). C-Journalism E-English/Language Arts, J-History/Government, M-Mathematics, S-Sciences. Engages secondary students 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: CI 413 and 454. Corequisite: 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. Corequisite: the appropriate student teaching practica.

CI 461. Student Teaching: Middle Level (6) E-English/Language Arts, J-History/Comprehensive Government, M-Mathematics, S-Sciences. Designed to allow middle-level students to spend a semester in two placements in appropriate classroom settings working with cooperating teachers. The student and cooperating teachers, with the approval of the university supervisor, devise a plan for the student teacher to assume full responsibility for the classrooms for a designated period of time during the semester. Prerequisites: the appropriate CI 412 and 454 courses. Corequisite: CI 456.

CI 471. Student Teaching: Secondary (11) C-Journalism, 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, 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. Corequisite: CI 471.

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. Repeatable for credit. Offered Cr/NCr. Prerequisites: successful completion of 24 credit hours and a 2.500 GPA.


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). Investigates 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 desktop equipment. Word processing on the personal computer and laser printing are the two technological achievements that make possible a desktop publishing revolution. Styles 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 603. Foundations of Early Childhood Unified (2). An introduction to working with young children (including those developing normally, those at risk due to environmental and biological issues, and those with special needs), their families, and professionals in community schools, agencies, and programs. Emphasizes professional development, positive dispositions, early childhood learning environments, and early childhood professional standards. Examines the ECU professions, characteristics of good teaching, the nature of teacher education, and basic historical and philosophical foundations of ECU education. Prerequisites: CI 271 and 272.

CI 611. Collaboration/Teaming: Families, Professionals & Community Members (3). Provides students with the dispositions, experiences, knowledge, and skills required of professionals who work in collaboration/teams with families, professionals in educational and developmental settings, and paraprofessionals. Prerequisites: CI 271 and 272.

CI 614. ECU Assessment & Methods: Infants, Toddlers, and Families (3). Provides knowledge, skills, and dispositions for candidates regarding developmental principles, evaluation/assessment, and the development of services, supports, and accommodations for infants/toddlers (birth through age 2) and their families. Includes competencies within both the early childhood and early childhood special education fields. Prerequisite: CI 603. Corequisite: CI 614 (undergraduates only).

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 617. ECU Assessment & Methods: Preschool (3). Provides knowledge, skills, and dispositions for teacher candidates regarding development and learning at the preschool level (ages 3–5). Candidates learn to link theory and evidence-based practices to the preparation of the learning environment, the curriculum, and instructional methods that are appropriate for all children. Includes methods of screening and evaluation, adaptations and accommodations, and interventions to meet individual child needs, including those with exceptionalities. Prerequisites: CI 603. Corequisite: CI 617P (undergraduates).

CI 617P. ECU Presudent Teaching: Preschool (2). Candidates participate in prestudent teaching opportunities located in natural settings (e.g., within homes and the community) that include young children from birth through age 2 and their families. Candidates work with cooperating teachers, other professionals, and a university supervisor to plan, implement, and assess services and supports for young children and their families. Prerequisite: CI 603. Corequisite: CI 617P (undergraduates).

CI 620. Assessment & Methods: K–3 (3). Provides knowledge, skills, and dispositions for candidates working with families and young children from kindergarten through grade three. Covers theory, methodology, screening, evaluation, assessment, and instructional practices, including adaptations/modifications/assistive technology of general education curriculum/instruction for young children both with and without delays/disabilities. Prerequisites: CI 603, and at least one of the following: CI 402J, 402S, 402L, or 402M; or hold an elementary teaching license.

CI 621. Instructional Strategies: Middle-Level Education (3). Students examine the middle grades school 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 learn to manage changes.

CI 647A. Student Teaching ECI: K–3 (8). Candidates spend a semester in professional settings (K–3 level) working with a cooperating teacher and university supervisor. The candidate and cooperating teacher, with the approval of the university supervisor, devise a plan for the student teacher to assume full responsibility for the program/classroom for a designated period of time during the semester. Prerequisites: CI 614, 617, 617P, 620, successful completion of all Core I and II courses and assessments and acceptance into clinic practice.

CI 647B. Student Teaching ECI: Birth–PreK (4). Candidates spend a semester in educational settings (infant/toddler level or preschool level) working with a cooperating teacher and university supervisor. The candidate and cooperating teacher, with the approval of the university supervisor, devise a plan for the student teacher to assume full responsibility for the program/classroom for a designated period of time during the semester. Prerequisites: CI 614, 617, 617P, 620, successful completion of all Core I and II courses and assessments and acceptance into clinic practice.

CI 654. Middle Level/Secondary Strategies (3). E-English, J-History, M-Mathematics, S-Science. Acquaints educators with teaching techniques and assessment tools specifically tailored to the needs of students in the middle level (grades 5–8) and secondary (grades 6–12) education. Intended for individuals who hold a teaching license and who wish to add middle level or secondary subject endorsement. 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 705. 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 701.

CI 708. Current Topics in Curriculum (1–3). Addresses a broad range of topical issues in curriculum development and implementation. A current issue is 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 is covered under this course number, an umbrella number for a variety of topics/innovations in instructional practices. Repeatable.
CI 711. Multicultural Education (3). Emphasizes students understanding multiple perspectives in a global society and the role of multiple modality, 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 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 714. Reading Instruction and Assessment (3). Helps students create instructional environments; teaches phonemic awareness, word identification (including phonics), vocabulary-building skills, strategies for comprehension and the construction of meaning, reading and writing fluency, and study strategies; and assesses student performance and progress. Prerequisite: CI 705 or departmental consent.

CI 716. Introduction to the School Library (2). An introduction to the role of the library and the library teacher in the school. An overview of issues affecting libraries and library teachers is presented. Prerequisite: teacher certification/license.

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 719. Foundations of Special Education (1). Addresses the basic foundations of special education across exceptionality areas. Discusses a general history of special education and its relationship to general education trends (as well as the disability movement as a whole). Covers important special education legislation and regulations, the role litigation has played in the development of the discipline, and ethical issues in the provision of special education services. The continuum of services will be explored along with roles/responsibilities of special and general educators in relation to students with exceptionalities, especially within inclusive settings. Prerequisite: acceptance into teacher education or completion of a teacher licensure program in general education. Corequisite: CI 720 or 722.

CI 720. Characteristics: Adaptive/Functional Learning Needs (2). Explains the cognitive, communicative, social/emotional, sensory, and physical characteristics of students with mild to severe disabilities and how these characteristics influence planning and instruction. Examines roles of students, professionals, and families in meeting student needs. Discusses current developments in the field of special education that pertain to working with students with adaptive and functional learning needs. Prerequisites: CI 311, 320, and acceptance into teacher education or completion of a licensure program in general education. Corequisite: CI 719.

CI 722. Characteristics: Gifted Learning Needs (2). Introduces the field of gifted education. Examines theories of intelligence, identification, characteristics and learning needs, special populations, curriculum differentiation, and underachievement. Prerequisites: CI 311, 320, and acceptance into teacher education or completion of a licensure program in general education. Corequisite: CI 719.

CI 724. Methods/Assessment: Adaptive (3). Examines introductory assessments, curriculum, and instruction related to students with mild and moderate learning needs. Includes competencies for (a) developing individual educational plans, (b) assessment for instructional planning, (c) planning and delivering research-validated individualized instruction, (d) monitoring and basing instructional decisions on performance data, (e) managing safe and constructive learning environments, and (f) strategies for working with students with adaptive learning needs in general and special education environments. Prerequisites: CI 719, 720, or instructor’s consent.

CI 725. Improvement of Instruction in Science (3). Assists teachers in improving the way they teach science and the way their students learn science. Includes instructional strategies, curriculum, research, and technology. Prerequisite: CI 402S or 404S.

CI 726. Information Technologies in the School Library (2). Introduces a wide range of computer applications, including word processing, database, spreadsheet, and presentation software to create and manage information in the library. 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. Technology in the School Library II (2). An introduction to 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 basis of local area network design. Students learn the basics of media production and strategies for teaching media production to students. Students also look at the future of technology in school libraries. Prerequisite: CI 726.

CI 728. Cataloging (2). An introduction to cataloging materials for the school library. Includes cataloging print and non-print materials in US MARC format; assigning Dewey Decimal Classification Numbers; assigning Library of Congress Subject Headings; sources for cataloging records, the importance of authority control in the library.

CI 729. Reference Materials & Collection Development (2). Provides students with skills in evaluating and selecting library materials. Presents methods of evaluating and using indexes, bibliographies, encyclopedias, dictionaries and other print and electronic media, including the Internet.

CI 730. Curriculum in the School Library (2). Comprehensively designed to give students knowledge about the role of the school library in the curriculum development process. Addresses how the school library teacher collaboratively develops and integrates information literacy and content area standards into library and classroom activities. Prerequisite: CI 716.

CI 731. The Reflective and Inquiring Educator (6). 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 (2). An introduction to 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 basis of local area network design. Students learn the basics of media production and strategies for teaching media production to students. Students also look at the future of technology in school libraries. Prerequisites: CI 716, 726, 728, 730.

CI 734. Literature-Based Reading Programs (3). Students examine specific methods for developing a literature program with children (preschool-elementary years) emphasizing extending literature and media through the reading environment, language arts, the arts, and creative expression. Prerequisites: CI 705, and 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 or supervise other literacy practitioners, communicate assessment results, and engage in professional activities. Prerequisites: CI 705, 714.

CI 737. Methods/Assessment: Gifted (3). Explores a variety of assessment instruments, both teacher-made and standardized, to determine a gifted student’s cognitive functioning level and educational needs. Examines strategies and techniques for planning qualitatively differentiated curriculum to meet the academic needs of the gifted learner. Prerequisites: CI 719, 722, or instructor’s consent.

CI 742. Methods/Assessment: Functional (3). Provides introductory assessment and methods of the learning and behavioral characteristics of individuals with severe and multiple disabilities from preschool through high school; explores implications for a comprehensive service delivery system, and trends in best practices, both current and historical. Required for entry into the Master’s in Education—special education (functional program). Prerequisites: CI 719, 720.

CI 743. Transition to Teaching Internship I (1). In the transition to teaching program, this internship replaces the required student teaching assignment for the purposes of licensure. Students teach half time or more with a provisional license. Prerequisites: CI 760A, employment by a school district and completion of coursework for restricted teacher licensure. Corequisite: CI 768.
CI 744. Transition to Teaching Internship II (1). In the transition to teaching licensure program, this internship replaces the required student teaching assignment for the purposes of licensure. Students teach half time or more with a provisional license. Prerequisites: CI 743, 761A, employment by a school district and completion of coursework for restricted teacher licensure. Corequisite: CI 769.

CI 746. Alternative Certification Internship III and IV (1). 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 321 or 711, CI 374, 775, 776, and 777.

CI 748. Transition to Teaching Internship III (1). In the transition to teaching licensure program, this internship replaces the required student teaching assignment for the purposes of licensure. Students teach half time or more with a provisional license. Prerequisites: CI 744, 769, employment by a school district, and completion of coursework for restricted teacher licensure. Corequisite: CI 848.

CI 749. Transition to Teaching Internship IV (1). In the transition to teaching licensure program, this internship replaces the required student teaching assignment for the purposes of licensure. Students teach half time or more with a provisional license. Prerequisites: CI 748, employment by a school district, and completion of coursework for provisional teacher certification. Corequisite: CI 748.

CI 749A. Practicum: Adaptive (3). Provides prospective special education teachers with participation in a class for children or adolescents with adaptive learning needs being served in special education programs. Supervision is provided by a fully-qualified special education teacher and a university faculty member. Emphasizes (a) research-validated teaching methods for students with adaptive learning needs, including planning individual education programs and standards-based education; (b) use of formal-informal psycho-educational assessment devices, curriculum strategies, positive behavior support, behavior management, and evaluation of student performance; and (c) reflective analysis of personal performance and its impact on student learning. Prerequisites: CI 719, 720, 724, and practicum placement approval.

CI 749E. ECU Practicum (1). Provides candidates with supervised practical experience in program settings that serve young children with/without disabilities and their families. Candidates work with a cooperating teacher(s) to observe various program levels that serve infants, toddlers, and preschoolers and their families regarding learning environments, assessment and learning strategies aligned with state and/or district standards for the Early Childhood Unified teaching license. Prerequisites: CI 603, 611, and approved application for practicum placement.

CI 749F. Practicum: Functional (3). Provides supervised practical experience in a program setting that serves students who have low-incidence disabilities. Candidates work with a cooperating teacher to plan, implement, and assess instruction aligned with state and/or district standards for students with low-incidence disabilities. Prerequisites: CI 719, 720, 742, and practicum placement approval.

CI 749G. Practicum: Gifted (3). Provides prospective special education teachers with participation in an educational setting for children and adolescents with needs for gifted curriculum served in special education programs. Supervision is provided by a fully-qualified gifted education teacher and a university faculty member. Emphasis is placed upon research-validated teaching methods for students with gifted curriculum needs. Prerequisites: CI 719, 722, 737, and practicum placement approval.

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 adviser's consent. Prerequisite: teacher certification or departmental consent.

CI 755. Introduction to the National Board Certification Process (2). Participants study the five core propositions of the National Board for Professional Teaching Standards: (1) teachers are committed to students and their learning; (2) teachers know the subjects they teach and how to teach those subjects to students; (3) teachers are responsible for managing and monitoring student learning; (4) teachers think systematically about their practice and learn from experience; (5) teachers are members of learning communities. Participants are introduced to the standards for their certification area, should they choose to pursue national board certification, analyze small group and whole class videos, and complete a self-assessment to determine personal strengths and weaknesses and the degree to which they are prepared to pursue national board certification.

CI 757. School Library Media Internship I (2). The first of a two-semester internship required by the state of Kansas to qualify for endorsement as a professional licensed library media specialist. Provides the candidate with experience as a library media specialist. Candidates are expected to provide evidence for meeting all licensure standards required of library media specialists. Prerequisites: Kansas conditional endorsement as a library media specialist, master's degree, Kansas five-year teaching license.

CI 760A. Creating an Effective Classroom (3). Part of the core for restricted licensure in the transition to teaching licensure program. Participants conduct an initial examination of instructional methods, educational trends, and effective practices for classroom management. Prerequisites: admission to the transition to teaching program. Student will have secured (or have been cleared to secure) a teaching contract in an accredited school system.

CI 761A. Instructional Planning (2). In the transition to teaching licensure program, this course addresses issues in instructional planning including: identifying appropriate learner goals, aligning goals with accepted standards, models of instruction, adapting instruction to meet individual student needs, and differentiated instruction. Prerequisites: employment by a school district and completion of coursework for restricted license. Corequisite: CI 743.

CI 763. Preparing for the National Board for Professional Teaching Standards Certification Process. (1). Candidates analyze national board standards specific to their certification areas and identify personal strengths and weaknesses in relation to those standards. Candidates determine a plan for completing four draft portfolio entries during the fall semester of the upcoming school year. Prerequisite: CI 756.

CI 766. NBPTS: Professional Portfolio Development (3). Taken during the fall semester of the year in which a teacher is a candidate for National Board Certification. Candidates design and present units and evaluate student work that could be used for their portfolio. As part of the process, candidates identify and analyze relevant student work samples and make videotapes of themselves engaged in both whole group and small group instruction. Emphasis is placed on two areas: (a) helping candidates organize themselves so that they increase their chances of success at earning first-time certification; and (b) learning to engage in the critical self-analysis necessary to produce clear, consistent, and convincing evidence that their work is accomplished. Emphasis is placed on professional writing. Prerequisite: CI 756.

CI 767. NBPTS: The Assessment Process (3). Taken during the spring semester of the year in which a teacher is a candidate for National Board Certification. Candidates complete and submit their portfolios to the national board for assessment. Candidates also prepare for the assessment center tests. Prerequisite: CI 766.

CI 768. National Board Certification: Facilitating Accomplished Practice (3). Capstone course. Candidates prepare a portfolio of at least two teaching units for the courses they teach that are fully integrated with the standards of the national board. Portfolio units may be added to an electronic professional library of the College of Education. Candidates identify key topics for staff development in consultation with school leadership that support the CIP of their respective schools and develop workshop or in-service sessions for colleagues. Emphasizes the development of instructional leadership skills to achieve these goals. Candidates may, at the discretion of the university adviser, teach a university sponsored workshop or course in lieu of developing a school district sponsored professional development session. Professional collaboration and lifelong learning are emphasized. Prerequisite: CI 760A and 767.

CI 769. Instructional Strategies and Assessment (2). In the transition to teaching licensure program, this course allows the student to explore a variety of instructional strategies and assessment techniques while learning how to adapt these strategies and techniques to meet individual needs. Prerequisites: CI 743, 761A, 768, and continued employment by a school district. Corequisite: CI 744.

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 leaders in specific technology. Includes telecommunications, multimedia applications, and new hardware and operating systems. Prerequisite: 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 curricular 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 examine methods of selecting and adapting curricular ways to enhance the curriculum through developing activation plans for involving parent and community resources in the ESL/BE curriculum. 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 uninformed 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). Surveys nativist, environmentalist, and interactionist theories of second-language acquisition. Covers a broad introduction to the scope of second-language acquisition and bilingualism by reviewing substantive introduction to the scope of second-language acquisition. Appropriate software is evaluated and used in planning for instruction.

CI 780L. Technology in the Classroom: Language Arts (2). Enables classroom teachers to use computers and related technology in the language arts curriculum. Appropriate software is evaluated and used in planning for instruction.

CI 780M. Technology in the Classroom: Mathematics (2). Focuses on the integration of information and communication technology in mathematics. Explores mathematics-related software and online resources, instructional strategies, and assessment techniques. Strongly focuses on the use of technology to meet the subject matter and technology and curriculum standards. Emphasizes building a community of reflective learners. Prerequisites: entrance into teacher education, valid teacher certificate/license, or instructor's consent.

CI 780S. Technology in the Classroom: Science (2). Assists teachers of science in integrating the use of technology appropriate for their classrooms. Explores software and online resources, instructional strategies, and assessment techniques. Strongly focuses on the use of technology for communication and student assistance to meet the science and technology curriculum standards. Emphasizes building a community of reflective learners. Prerequisites: entrance into teacher education, valid teacher certificate/license, or instructor's consent.

CI 781. Cooperative Education (1–4). Provides the candidate a work-related 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. CI 781 candidates are limited to any combination of 6 hours of pass/fail, S/U, and Cr/NCr credit toward the degree program.

CI 782. Internet in the Classroom (3). Project-based course requires students to identify Internet resources that best meet classroom curricular goals and plan instruction using those resources. 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). Students explore and expand their knowledge of the Internet. They complete a special project designed to use 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). Investigates teaching and learning strategies related to the use of computers in the classroom. Includes the design and management of instructional activities related to software integration, programming, and the development and assessment of computer-related student competencies. Students are 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.

Educational Leadership (EL)

Courses for Graduate/Undergraduate Credit

EL 750. Experienced Administrator's Workshop (1–6). Offers a variety of administrative topics.

EL 752. Special Studies in Educational Administration and Supervision (1–3). Group study in a pre-selected 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.

Human Performance Studies (HPS)

The mission of the department of human performance studies is to prepare students for careers in athletic training, exercise science, and physical education 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: BA degrees in physical education, PreK–12, exercise science, and athletic training. 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 50 contact hours with K–12 students during prestudent teaching experiences.

Exercise Science

Wichita State's exercise science program is for those interested in careers involving
exercise physiology, health promotion, clinical exercise-related fields, rehabilitation, medicine, biology of exercise, research, and academia or graduate education in health-related fields. The department also has a comprehensive human performance laboratory that is available for students completing exercise science coursework.

Minor in Exercise Science
The exercise science minor consists of 24 credit hours including the following courses: HPS 301, 328, 331, 440, 470, and 490; HS 331; and a prerequisite course in anatomy and physiology. This program provides minimum knowledge for careers in the fitness industry and for certification exams.

Athletic Training Education Program (ATEP)

Program Description
The mission of the Athletic Training Education Program (ATEP) at WSU is to provide a comprehensive program of academic coursework and field experience that will educate athletic training students for entry-level positions in the profession of athletic training. The ATEP strives to meet the standards, educational competencies, and clinical proficiency for athletic training education through professional service, research activities, and curriculum design. The ATEP abides by the policies and procedures as set forth by the Commission on Accreditation of Athletic Training Education (CAATE), National Athletic Trainers' Association Education Council (NATAEC), Board of Certification (BOC), and the Kansas Board of Healing Arts.

Program Design and Accreditation:
The department of human performance studies (HPS) offers a four-year program of study leading to a Bachelor of Arts degree in athletic training. The ATEP consists of a one-year preprofessional phase and a three-year professional phase. Students begin their sequenced program in the fall of their first year enrolled at WSU. The program of study incorporates academic course requirements with clinical experiences to encompass the entry-level professional qualifications of the athletic trainer. The academic structure involves 80 hours of courses, laboratories, and practicums to fulfill the NATA Athletic Training Educational Competencies. Students engage in areas of concentration for upper body and lower body injuries, sports that use protective equipment, and general medical conditions. The final year of the program incorporates a clinical internship through local affiliated sites. The ATEP has been granted accreditation by the Commission on Accreditation of Athletic Training Education (CAATE).

BOC vs. NATA
The Board of Certification (BOC) sets the standards for the practice of athletic training. The entry-level certification program is designed to establish standards for entry into the athletic training profession. The mission of the Board of Certification is to certify athletic trainers and to identify, for the public, quality health care professionals through a system of certification, adjudication, standards of practice and continuing competency programs. The National Athletic Trainers' Association (NATA) is the national membership organization for the profession of athletic training. The mission of the NATA is to enhance the quality of health care provided by certified athletic trainers and to advance the athletic training profession. Students are eligible to sit for the BOC certification exam upon graduation from a CAATE accredited program. Please contact the ATEP coordinator for a recent listing of CAATE accredited programs and current WSU accreditation status.

Undergraduate Admission
A prospective student interested in pursuing the Bachelor of Arts degree in athletic training needs to request an application from the ATEP coordinator or the department of HPS. The applicant must meet all admission requirements by WSU.

1. Application to preprofessional program: An ATEP application for the preprofessional program can be completed by visiting the Web site for athletic training (wichita.edu/athletictraining) or obtained from the ATEP coordinator. The student application file for the preprofessional program must be complete by March 1st and include:
   a. Letter of interest;
   b. Complete application;
   c. Three letters of recommendation; and
   d. Completion of WSU admission criteria.

2. Application to professional program: In order for the student to be selected into the professional program of the ATEP, the student must complete the following criteria before formal admittance is granted.

All professional program criteria must be completed by March 1st and include:
   a. Completed health examination;
   b. Immunization verification;
   c. Personal background check;
   d. Record of work or volunteer hours;
   e. Signed technical standards;
   f. Current CPR certification;
   g. Purchase of liability insurance;
   h. Personal interview with Athletic Training Advisory Committee and ATEP faculty; and

i. Completed core courses with a B average or better:
   • HPS 114 – Introduction to Athletic Training
   • HPS 317 – CPR/AED/First Aid for the Professional Rescuer
   • HPS 130 – Taping and Bandaging in Athletic Training
   • HPS 331 – Care and Prevention of Athletic Injuries
   • HP 203 – Medical Terminology

Technical Standards
Wichita State University is committed to the principle that no qualified individual on the basis of disability, be excluded from participation in or denied the benefits of services, programs, or activities of the university, or be subjected to discrimination by the university as required by the Americans with Disabilities Act of 1990. A copy of the technical standards for admission into the ATEP is available in the ATEP coordinator's office. The ATEP adheres to the policies for academic accommodation as determined by the office of disability services. The office of disability services provides academic accommodations for students who experience physical or mental disabilities. Students are required to provide appropriate documentation to the director of disability services before classroom services are provided. Services are based on the student’s need for academic accommodation.

Transfer Students
Athletic training courses taken at other universities or colleges cannot be transferred due to NATA Education Council restrictions. Transfer students should meet with the program adviser to clarify which courses will transfer into the ATEP preprofessional program.

Probation and Dismissal
Students are placed on probation for the next semester if their cumulative WSU GPA falls below 2.500. Preprofessional students placed on probation jeopardize their admission to the professional phase. Students on probation will not be
academically dismissed from the ATEP until: (1) they accumulate 12 or more attempted hours after being placed on probation, (2) fail to earn at least a 2.500 GPA semester average, and (3) their cumulative or WSU grade point average remains below a 2.500. Students dismissed for academic reasons may seek readmission to the ATEP and the College of Education by appealing, in writing, for an exception to the regulations. Students should contact the ATEP coordinator and the College of Education for specific procedures.

Special Requirements and Costs
Students are responsible for all application expenses, including the purchase of professional liability insurance in the minimum range of $1,000,000–$3,000,000, security background clearance and demonstrate proof of standard health insurance before beginning the professional phase of the ATEP. Students enrolled in HPS 130 – Taping and Bandaging in Athletic Training, are required to pay a departmental cost-recovery fee for the use of consumable athletic training materials in order to meet the objectives of the course as outlined in the WSU Undergraduate Catalog. Students are required to provide their own transportation to each clinical site. Students should contact the ATEP coordinator if they have any questions about these special requirements and costs.

Clinical Affiliation and Education
The ATEP has affiliation agreements with various health facilities in Wichita to assist with the clinical education of the athletic training student. The clinical affiliates include a variety of settings. Clinical education involves the rotation of specific experiences tailored to meet program standards and objectives. The athletic training student must complete the academic course(s) relating to these experiences before the clinical rotation assignment. The entire clinical rotation process is a three-year commitment. Students can contact the ATEP coordinator for information on student responsibilities, expectations, and policies for clinical education assignments.

Requirements for a Bachelor of Arts degree in athletic training are as follows:

<table>
<thead>
<tr>
<th>Course</th>
<th>Hrs</th>
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<tbody>
<tr>
<td>ENGL 100 English Composition, or ENGL 101 College English I</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 102 College English II</td>
<td>3</td>
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</table>

**Total Credit Hours:** (125)

**Physical Education Activity 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 aquatics. 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**

**HPS 111. Foundations in Physical Education (3).** Introduction to the history, principles, philosophy, and foundations of physical education with concomitant outgrowths for modern society.

**HPS 113. Introduction to Exercise Science (3).** An overview of the basic physiological, neurological and biomechanical processes associated with physical activity and human movement.

**HPS 114. Introduction to Athletic Training (3).** 2R, 2L. Covers introductory techniques, applications, and theories for the beginning athletic training student. Includes basic skills of fitness program design, emergency procedures, immediate injury care, pharmacology interactions, modality application, and environmental conditions.

**HPS 117. Community First Aid and Community CPR (2).** Community first aid and community cardiopulmonary resuscitation with certification by the American Red Cross.

**HPS 124. Health and Wellness Concepts (2).** Designed to help students gain knowledge and understanding of a variety of wellness concepts for their personal use and their professional development. Students are 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, students are required to actively participate in wellness and physical activity self-assessments and evaluations and learn to assist others in the development of their health and wellness goals.

**HPS 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.

**HPS 130. Taping and Bandaging in Athletic Training (1).** Covers techniques used for the care and prevention of athletic injuries. Includes various methods of athletic taping, bandaging, protective padding, and bracing of anatomical regions.

**HPS 150. Workshop (1–3).**

**HPS 180. Fitness Instructor Training (2).** Designed to produce group exercise instructors who can teach floor aerobics, cardio-kickboxing, step aerobics,
HPS 201A. Introduction to Physical Activity (2).
Introduces basic skills and strategies of individual sports/activities. Prerequisite: K–12 physical education major.

HPS 201B. Introduction to Physical Activity (2).
Introduces activities focusing on life adventures. Prerequisite: K–12 physical education major.

HPS 201C. Introduction to Physical Activity (2).
Introduces fundamental motor patterns and movement education. Prerequisite: K–12 physical education major.

HPS 201D. Introduction to Physical Activity (2).
Introduces basic skills and strategies of team sports. Prerequisite: K–12 physical education major.

HPS 220. Athletic Training Practicum I (1).
Covers clinical skills and proficiencies relating to emergency care, basic treatment of injury, risk management, preventative procedures, equipment intensive, and specific medical conditions. Prerequisites: admission to the athletic training education program and instructor’s consent.

HPS 221. Athletic Training Practicum II (1).
Covers clinical skills and proficiencies relating to assessment and evaluation of the upper extremity, cervical spine, head, and face. Prerequisites: HPS 220 and instructor’s consent.

HPS 229. Applied Human Anatomy (3).
A study of the structure and function of the cardiovascular, skeletal, and muscular systems of the human body with application to physical activity.

Upper-Division Courses

HPS 300. Rhythmic Activities in PreK–12 Physical Education (2). This class teaches the value, methodology and curricular content of rhythmic activities appropriate for PreK–12 physical education students. Prerequisite: admission to teacher education program.

HPS 301. Fundamentals of Physical Fitness and Exercise (3).
Introduction to physical fitness and the role of exercise in health and wellness. Understanding the concepts, principles, and guidelines for fitness exercise, fitness assessment, and related physical activities. Class includes lecture, practical instruction, and laboratory experiences related to physical fitness and exercise. Prerequisites: HPS 113, and 229 or equivalent.

HPS 306. Water Safety Instructor (2). 1R; 2L.
Meets American Red Cross standards for qualification 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: HPS 107A or departmental consent.

HPS 310. Organization and Administration of Physical Education Programs (3).
Addresses the leadership and management skills and duties required of the physical educator in the public school system. Designed to provide students with the knowledge, skills, and tools they will need to organize and administrate physical education, intramural, and athletic programs and to oversee the management of the physical plant and facilities. Ethics, human resources, budgeting, legal and safety issues, and community collaboration and resources will also be studied in this course. Prerequisites: HPS 201A, B, C, D, and 460; admission to teacher education, and completion of preprofessional block.

HPS 311. ISAM: Physical Education in Secondary Grades 6–12 (3).
Provides the skills and knowledge for teacher candidates to successfully teach secondary physical education grades 6–12. Instruction for teaching techniques, teaching progression, skill analysis and development are provided. Students learn effective, authentic assessment of student learning in physical education. There is a study of the adolescent and management techniques for both middle school and high school students. Learning styles are studied and a variety of learning strategies are studied and implemented. Prerequisite: admission to teacher education program.

HPS 312. ISAM: Physical Education in Secondary Grades 6–12, Field Experience (1). Through systematic observation in a secondary school (middle and high school), students observe and examine the nature of teaching and the roles of teachers in secondary school physical education classes. Prerequisite: admission to teacher education program. Corequisite: HPS 311.

HPS 317. CPR/AED/First Aid for the Professional Rescuer (2).
Students learn American Red Cross first aid and CPR/AED skills as used by first responders—those who have a professional duty to act in an emergency and to provide care.

HPS 320. Athletic Training Practicum III (1).
Covers clinical skills and proficiencies relating to assessment and evaluation of the lower extremity, abdomen/thorax, thoracic, lumbar, and sacral spine. Prerequisites: HPS 221 and instructor’s consent.

HPS 321. Athletic Training Practicum IV (1).
Covers clinical skills and proficiencies relating to therapeutic modalities and various treatment protocols involving electrotherapy, ultrasound, traction, joint mobilizations, and massage to enhance the healing process. Prerequisite: HPS 320 and instructor’s consent.

HPS 324. Theory and Organization of Baseball (2).
Covers clinical skills and proficiencies relating to therapeutic modalities and various treatment protocols involving electrotherapy, ultrasound, traction, joint mobilizations, and massage to enhance the healing process. Prerequisite: HPS 320 and instructor’s consent.

HPS 325. ISAM: Physical Education in Elementary Grades PreK–5, Field Experience (1). Through systematic observation in an elementary school, students observe and examine the nature of teaching and the role of teachers in elementary physical education classes. Prerequisite: admission to teacher education program. Corequisite: HPS 324.

HPS 328. Kinesiology and Biomechanics (3).
The understanding of the kinesthetics and mechanics of human motion with respect to performance of sport activities. Prerequisite: HPS 229 or equivalent.

HPS 329. Health and Wellness Concepts for PreK–12 Teacher Education (2). Designed for the physical education PreK–12 teacher candidate to gain the skills and knowledge to integrate health and wellness with physical activity. The health and wellness concepts are designed to promote living a positive, healthy lifestyle for a lifetime. Provides a foundation of information for students to learn to teach health and wellness in KSS 500. Prerequisite: admission to teacher education program.

HPS 331. Care and Prevention of Athletic Injuries (3). 2R; 2L.
The study of acute injury care, prevention, and recognition methods for the coach, athletic trainer, and physical educator to aid in the management of athletic related injuries. Prerequisite: HPS 229 or equivalent.

HPS 332. Technology for K–12 Physical Education (1).
Provides the skills and knowledge to effectively implement technology into PreK–12 health and physical education classes. Develops basic technology skills as well as technology associated with HPER disciplines. Prerequisite: admission to teacher education program.

HPS 333. Assessment of PreK–12 Physical Education (2).
Provides teacher candidates the skills and knowledge needed to learn effective, authentic assessment of student learning in physical education. A framework is provided that offers a process for designing curriculum, instruction and assessment so they are conceived, developed and implemented in a clear, thoughtful manner. Assessment is aligned with district, state and national content standards to demonstrate the value of individual student learning and to support a congruent process of both assessment of student learning and of program effectiveness. Prerequisite: admission to teacher education program.

HPS 338. Theory and Organization of Baseball (2).
The theory, organization, responsibilities, and techniques of coaching baseball.

HPS 350. Upper Extremity Assessment (4). 3R; 2L.
Covers clinical assessment related to injury/illness sustained by the competitive athlete specifically involving the upper extremity. Includes skills of health history, visual inspection, physical palpation, and functional stress testing. Prerequisites: HPS 229 or equivalent, HPS 331.

HPS 351. Lower Extremity Assessment (4). 3R; 2L.
Covers clinical assessment related to injury/illness sustained by the competitive athlete specifically involving the lower extremity. Includes skills of health history, visual inspection, physical palpation, and functional stress testing. Prerequisites: HPS 229 or equivalent, HPS 331.

HPS 352. General Medical Conditions in Athletics (3). The study of diseases, disorders, illnesses, and other general medical conditions affecting the health
of the athlete. The student learns to recognize the signs, symptoms, and predisposing conditions associated with the skin; eyes, ears, nose and throat; respiratory and cardiovascular system; endocrine system; gastrointestinal and genitourinary tract; gynecological disorders; viral syndromes; and neurological disorders. Prerequisite: HPS 229.

HPS 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. Prerequisites: HPS 229 or equivalent, admission to teacher education, and completion of preprofessional block.

HPS 400. ISAM: Health Education PreK–12 (2). Provides practical applications of theoretical models of change for the health field. Discusses health problems, strategies for effecting change and outcome assessment. Develops selected instructional materials. Prerequisite: admission to teacher education program.

HPS 401. ISAM: Health Education in PreK–12 Physical Education, Field (1). Through systematic observation in PreK–12 schools students observe and examine the nature of teaching health education. Prerequisite: admission to teacher education program. Corequisite: KSS 301.

HPS 420. Athletic Training Practicum V (1). Covers clinical skills and proficiencies relating to therapeutic exercise and various rehabilitation protocols involving flexibility, muscular strength, physical conditioning, and functional progressions. Prerequisites: HPS 321 and instructor’s consent.

HPS 421. Athletic Training Practicum VI (1). Covers clinical skills and proficiencies relating to organizational, administrative, and management skills that formulate the administrative aspects of athletic training. Prerequisite: HPS 420 and instructor’s consent.

HPS 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.

HPS 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.

HPS 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. Prerequisites: HPS 301 or equivalent.

HPS 442. Administration of Athletic Training Programs (3). The principles of administration components within the athletic training profession. The student plans, coordinates, and supervises areas of health care services, financial expenditures, personnel management, public relations, and athletic training facility development. Prerequisites: HPS 331, instructor’s consent.

HPS 450. Therapeutic Modalities (3). 2R; 2L. The study of theories, applications, and methods of various modalities consisting of cryotherapy, electrotherapy, hydrotherapy, and thermotherapy in addition to principles of manual therapy, intermittent compression, and massage. Prerequisites: HPS 229 or equivalent, HPS 331.

HPS 451. Therapeutic Exercise (3). 2R; 2L. The study of a comprehensive rehabilitation/reconditioning program involving techniques of flexibility, muscular strength, muscular endurance, and cardiopulmonary training including anaerobic and aerobic principles. Prerequisites: HPS 229 or equivalent, HPS 331.

HPS 460. Motor Learning (3). Designed to examine the principles of motor learning by examining the physiological, psychological, and neuromotor factors that affect the acquisition of motor skills. Prerequisite: HPS 229, or instructor’s consent.

HPS 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: HPS 117, 301, 440; a 2.50 GPA; or departmental consent.

HPS 471. Student Teaching—Physical Education—Secondary (6). 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. Prerequisites: completion of all courses in major field and Core II of teacher education program.

HPS 472. Student Teaching—Physical Education—Elementary (6). 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. Prerequisites: completion of all courses in the major field and Core II of teacher education program.

HPS 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. Corequisites: HPS 471 and 472.

HPS 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.

HPS 490. Physiology of Exercise (3). 3R; 1L. Provides a working knowledge of human physiology as it relates to exercise. Prerequisite: HPS 229 or equivalent.

HPS 495. Internship in Exercise Science (8). Culminating activity for students completing the Bachelor of Arts in athletic training. Students spend the equivalent of full-time employment in an appropriate agency for one full semester. Prerequisites: senior standing, departmental consent, HPS 470, 2.500 minimum GPA overall and for major, admission to College of Education.

HPS 498. Internship in Athletic Training (8). Culminating activity for students completing the Bachelor of Arts in athletic training. Students spend the equivalent of full-time employment in an appropriate agency for one full semester. Prerequisites: senior standing in College of Education, 2.500 overall GPA and in major, ATEP education coordinator’s approval.

Courses for Graduate/Undergraduate Credit

HPS 510. Coaching and Officiating Sports (3). Provides the skills and knowledge necessary for individuals to successfully coach and officiate both elementary and secondary school interscholastic and intramural athletics. Instruction for coaching and officiating techniques, coaching progression, skill analysis and skill development is provided. Management techniques for interscholastic and intramural athletics are included. A variety of coaching strategies as well as discipline and motivation techniques are discussed. Prerequisites: completion of Core I of teacher education program if undergraduate standing, graduate standing at WSU, or instructor’s consent.

HPS 541. Strength and Conditioning (3). Helps prepare students for the National Strength and Conditioning Association (NSCA) Certification Commission’s Certified Strength and Conditioning Specialist (CSCS) examination and/or the NSCA-Certified Personal Trainer certification examination. Anatomy, biochemistry, biomechanics, endocrinology, nutrition, exercise physiology, psychology, and the other sciences that relate to the principles of designing safe and effective training programs are covered.

HPS 590. Independent Study (1–3). Prerequisite: departmental consent.

HPS 732. Pathophysiology of Cardiovascular Disease (3). Introduces the pathophysiology of multiple cardiovascular conditions and the developing industry of cardiac rehabilitation. Introduces assessment techniques in electrocardiography (ECG) to assist in the diagnosis of cardiovascular disease. Includes an introduction to ECG leads, rate and rhythm, ECG complexes and intervals, conduction disturbances, arrhythmia, ECG identification of myocardial infarction location, and drug effects on an ECG. Prerequisite: HPS 490.

HPS 750. Workshop in Education (1–3).

HPS 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.
measurements, and evaluation procedures commonly used in human performance settings. Prerequisites: HPS 111, 301, 229, 328, and 490.

HPS 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.

HPS 781. Cooperative Education Field Study (1–3). 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 repeated for credit. A maximum of 3 hours (for non-thesis option) or 6 hours (for thesis option) may count toward the graduate degree. Offered CR/NC only.

HPS 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 the differences in performance and training between genders. Prerequisite: HPS 490 or 830.

HPS 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.

HPS 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. Prerequisites: graduate standing at WSU and HPS 460 or instructor's consent.

HPS 797. Exercise in Health and Disease (3). Introduction to the physiology of disease and the effects of short- and long-term exercise on specific conditions. Understanding the guidelines for exercise testing and prescription in high risk populations. Prerequisite HPS 490.

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

**Sport Management (SMGT)**

Wichita State's BA in sport management 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 management degree program complete a one-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, park and recreation departments, and in the health club/fitness industry.

**Admission.** Prospective students interested in pursuing the Bachelor of Arts degree in sport management must meet all admission requirements by the WSU College of Education. In addition, they must (1) complete an orientation program embedded in SMGT 112, (2) provide documentation of a minimum of 25 hours of community service, and (3) provide two reference reports from academic or professional sources who rate the candidate as average or better on all scale items. Required forms are available at the department of sport management Web site. Go to wichita.edu, then click on “Browse A-Z” and choose S to reach the sport management Web site.

**Requirements**

<table>
<thead>
<tr>
<th>Course</th>
<th>Hrs.</th>
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<tbody>
<tr>
<td>SMGT 112</td>
<td>Intro to Sport Admin</td>
</tr>
<tr>
<td>SMGT 210</td>
<td>Practicum—Sport Admin</td>
</tr>
<tr>
<td>or</td>
<td>SMGT 447B Internship—Sport Admin</td>
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<td>with a corresponding 9 hour adjustment in elective hours</td>
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SMGT 426. Sport Public Relations (3).
SMGT 428. Sport Finance (3).
SMGT 446. Preinternship Seminar (1).
SMGT 447A Internship—Sport Admin (12).
SMGT 461. Legal Aspects Sport & Physical Activity I (3).
SMGT 462. Legal Aspects Sport & Physical Activity II (3).
SMGT 465. Psychology of Sport (3).
SMGT 466. Mkt Sport & Phys Activity (3).
SMGT 475. Sport in American Culture (3).
SMGT 520. Sport Tournament & Event (3).
SMGT 525. Sport Facility Management (3).
SMGT 545. Organization & Admin of Sport (3).
CI 541. Desktop Publishing I (3).
ECON 611. Economics of Sport (3).

**Minor in Sport Management**

The sport management minor consists of 18 credit hours including the following courses: SMGT 428, 461, 466, and 545; and two of the following courses: SMGT 112, 426, 475, 520, and 525. This program provides minimum knowledge for careers in the athletic/sport industry.

**Lower-Division Courses**

SMGT 112. Introduction to Sport Administration (3). Introduction to the discipline of sport management and its vast array of career opportunities (because the sport industry represents the 11th largest industry in the U.S.).
SMGT 210. Practicum—Sport Administration (3). Integrates coursework with planned and supervised professional experiences for a total of at least 160 hours. Prerequisite: SMGT 112.

**Upper-Division Courses**

SMGT 426. 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: SMGT 112.
SMGT 428. Sport Finance (3). Introduces the sport management student to financial challenges, financial statements, financial planning, and related issues within sport organizations. Prerequisite: SMGT 112.
SMGT 446. Preinternship Seminar (1). Provides focused preparation for students regarding internship activities, policies, procedures, and experiences. The internship experience is the cumulative learning experience within sport management. Assists students in understanding how to successfully complete and maximize their internship experience. Prerequisite: SMGT 112 and admission to College of Education.
SMGT 447A. Internship in Sport Administration (12). Culminating activity for students in sport management. Students spend the equivalent of full-time employment in an appropriate agency for a total of at least 640 hours. Prerequisites: SMGT 446, 90 hours of accumulated course credit, 2,500 GPA overall, and adviser's consent.
SMGT 447B. Internship in Sport Administration (12). Second internship experience for students in sport management; takes place in a different setting than SMGT 447A. Students spend the equivalent of full-time employment in the appropriate agency for a total of at least 640 hours. Prerequisites: SMGT 447A, 2,500 GPA overall and for major, senior standing in College of Education, adviser's approval.
SMGT 461. Legal Aspects of Sport and Physical Activity I (3). Provides students with the knowledge, understanding, and application of how the following legal issues influence the sport industry. Specific content addressed includes: the legal system, statutory law, risk management, tort law (negligence and intentional torts), contracts, and employment-related issues within the sport industry. A primary objective is to enhance the decision making and
problem solving ability of each individual student as it pertains to legal issues in sport and physical activity. Prerequisite: SMGT 112.

SMGT 462. Legal Aspects of Sport and Physical Activity II (3). Provides students with the knowledge, understanding, and application of how the following legal issues influence the sport industry. Specific content includes an emphasis on constitutional law, administrative law, labor law, antitrust law, and intellectual property. A primary objective is to enhance the decision making and problem solving ability of each individual student as it pertains to legal issues in sport and physical activity.

SMGT 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. Prerequisite: SMGT 112.

SMGT 466. 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: SMGT 112.

SMGT 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. Prerequisite: SMGT 112.

SMGT 481. Cooperative Education (4). Allows students to participate in the cooperative education program. Offered Cr/NCr only. Prerequisites: 2.500 GPA and admission to College of Education.

Courses for Graduate/Undergraduate Credit

SMGT 511. Selling in the Sport Industry (2). Provides students with the basic tools necessary to effectively sell sport products and services. “Best practice” recommendations in academic and professional literature serve as the foundation for the class. Students have the opportunity to employ those recommendations via in-class sales exercises and sales-related assignments. Prerequisite: SMGT 112 (undergraduate students).

SMGT 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: SMGT 112.

SMGT 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: SMGT 112.

SMGT 540. Seminar in Sport Administration (3). Integrates the knowledge base of sport and business as it applies in the practical setting. Prerequisites: 2.500 GPA, admission to College of Education, and senior standing.

SMGT 545. Organization and Administration of Sport (3). Discusses the fundamental aspects of management within any sport-related entity. Addresses management, marketing, facility management, human resources, legal issues, budgeting/finance, purchasing, and communication.

SMGT 590. Independent Study (1–3). Prerequisite: departmental consent.

SMGT 701. Structuring and Scheduling Sports Tournaments (3). The structural design, scheduling processes, and mathematics of sport tournaments, elimination, placement, and round robin formats.

SMGT 750. Workshop in Education (1–3).


SMGT 781. Cooperative Education Field Study (1–3). 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 repeated for credit. A maximum of 3 hours (for non-thesis option) or 6 hours (for thesis option) may count toward the graduate degree. Offered Cr/NCr only.

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

Music Education
See School of Music section, College of Fine Arts.
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, communication, 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 & Certificates 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 (MEM) program is offered in the industrial and manufacturing engineering department. A Doctor of Philosophy (PhD) also is 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.

**Certificates**
The College of Engineering offers graduate certificates in advanced composite materials, foundations of six sigma and quality improvement, lean systems, systems engineering and management, industrial ergonomics and safety, composite materials and processing, advanced manufacturing analysis, and design for manufacturing. A certificate in enterprise systems and supply chain management is offered jointly with the Barton School of Business.

**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) ENGL 101/100, ENGL 102, and COMM 111, and (b) MATH 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 credit hours 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. Attempted hours are defined as all hours appearing on the transcript with a grade of A, B, C, D, F, 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 hours of credit work at Wichita State before probation may be removed.

Students on academic probation may not enroll for more than 12 credit hours in a 16-week term, 6 credit 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 adviser with the
considered for transfer credit into an Engineering for evaluation. All courses

Students wishing to receive transfer

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. All courses considered for transfer credit into an engineering curriculum must have a grade of C or better.

Degree-bound WSU students should speak with an adviser 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. Introductory courses in the disciplines, to include one course in each of 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 mathematics and natural sciences; 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 General Education Program section in this Catalog for a description of the introductory courses, further study courses, and issues and perspectives courses.

College of Engineering Requirements

1. PHIL 385, Engineering Ethics, is a required course in humanities under the general education requirements described above.

2. Mathematics and natural sciences: 32–34 hours of mathematics and natural sciences must be completed, as prescribed by each department.

3. Core requirements (13 hours): AE 223, Statics (3 hrs.); EE 282, Circuits I (4 hrs.); IME 255, Engineering Economy (3 hrs.); and ME 398, Thermodynamics (3 hrs.). These are courses that all engineering students must complete, regardless of major.

4. Department requirements: Each department has specific courses that must be completed. These courses and their prerequisites are in the departmental sections of the Catalog and are listed on the departmental check sheets.

5. Technical electives: Additional courses required, but not specified, by the department. Each should be chosen in consultation with a departmental adviser.

6. In response to the recommendation of the National Academy of Engineering report on the future needs for engineering graduates, the College of Engineering has implemented the Engineer of 2020 program. Beginning with the fall 2007 class, to fulfill the requirements for an engineering Bachelor of Science degree at WSU, each student will complete the program course requirements including at least three of the following six activities: undergraduate research; cooperative education or internship; global learning or study abroad; service learning; leadership; and multidisciplinary education. This program will make the educational experience more meaningful to the student and the student more desirable to local and national industries. More details about the program can be found on the College of Engineering Web site.

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 coursework 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
introduction 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 adviser. 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 2.00 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); and
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 pre-professional work periods with classroom periods during the junior and senior years. The two most typical plans are illustrated in the following table.

<table>
<thead>
<tr>
<th>Year</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Semester</td>
<td>Fall</td>
<td>Spring</td>
<td>Summer</td>
</tr>
<tr>
<td>Plan A</td>
<td>W</td>
<td>C</td>
<td>W</td>
</tr>
<tr>
<td>Plan B</td>
<td>C</td>
<td>W</td>
<td>C</td>
</tr>
</tbody>
</table>

C Indicates in college  W Indicates at 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 courses explore general engineering topics.

Lower-Division Courses

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 becoming 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.

ENGR 200. Engineering for Non-Engineers (3).
An introduction to the engineering discipline using hands-on exercises and demonstrations with LEGO Mindstorms. Technical and practical aspects of aerospace, computer, electrical, industrial, manufacturing, and mechanical engineering are presented. Intended for freshman and sophomore non-engineering students who want to understand how engineering impacts their lives. No credit for College of Engineering majors.

ENGR 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: IME 222.

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 (b) to provide 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 communication, and humanities and social sciences.

Students have access to an excellent array of laboratory facilities including five wind tunnels, a water tunnel, computer labs, a structural testing lab, and a composite structures lab. These facilities and those shared with the National Institute of Aviation Research are among the finest found in academic institutions.

The aircraft industries in Wichita include Boeing, Cessna Aircraft Company, Bombardier Learjet Corporation, and Hawker Beechcraft, Spirit Aerosystems 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 credit hours for graduation, minus advanced placement credit. Specific degree requirements are given below:

Course ................................. Hrs.
General Education Courses
Basic Skills:
ENGL 101/100 & 102 College English I & II . . . . 6
COMM 111 Public Speaking ................. 3
PHIL 385 Engineering Ethics ............... 3
Humanities/fine arts or social/behavioral sciences courses* ....................... 15
Mathematics/Natural Sciences:
MATH 242, 243 & 344 Calculus I, II & II . . . . 13
MATH 555 Differential Equations I ........ 3
PHYS 313 & 315 Physics for Scientists I & Lab .5
PHYS 314 Physics for Scientists II .......... 4
CHEM 211 General Chemistry .......... 5
Natural sciences elective** ................. 3
Engineering Core Courses:

AE 223 Statics …………………………… 3
IME 255 Engineering Economy ………… 3
ME 398 Thermodynamics I ……………… 3
EE 282 Circuits I …………………………… 4

Major Courses:

AE 227 Engr. Digital Computation ……… 3
IME 222 Engineering Graphics ………… 3
ME 250 Materials Engineering ………… 3
AE 324 Fundamentals of Atmospheric Flight ………………… 3
AE 333 Mechanics of Materials ………… 3
AE 373 Dynamics …………………………… 3
AE 415 Intro to Space Dynamics ………… 3
AE 424 Aerodynamic Theory ……………… 4
AE 502 Aerospace Propulsion I ………… 3
AE 512 Exp. Methods in Aerodynamics 2
AE 514 Flight Dynamics & 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** …………………………… 9

** Must be chosen with adviser’s approval or from a departmentally approved list.

Lower-Division Courses

AE 223. Statics (3). Studies the condition of equilibrium of rigid bodies under the action of forces. Rigid bodies include beams, trusses, frames, and machines. Consideres both two- and three-dimensional bodies. Also studies centroids, centers of gravity, and moments of inertia. Corequisites: MATH 243 and PHYS 303 or 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, appropriate faculty sponsors and cooperative education coordinators. Students must enroll concurrently in a minimum of 6 hours of coursework including this course in addition to a minimum of 20 hours per week at their co-op assignment. May be repeated. Graded Cr/NCr. Prerequisites: successful completion of 20 hours toward an engineering degree and approval by appropriate faculty sponsor.

Upper-Division Courses

AE 324. Fundamentals of Atmospheric Flight (3). Studies the atmosphere, aircraft, and aerodynamic nomenclature. Introduction to aerodynamic theory, airfoils, wings, aircraft performance, stability and control, and propulsion. Prerequisite: AE 225 (no grade lower than one that generates 2.000 or more credit points per credit hour will be accepted for this course). Corequisite: AE 227.

AE 333. Mechanics of Materials (3). Studies the 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 (no grade lower than one that generates 2.000 or more credit points per credit hour will be accepted for this course). Corequisite: 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 kinetics. Prerequisites: AE 227 and 373 (no grade lower than one that generates 2.000 or more credit points per credit hour will be accepted for these courses). Corequisite: MATH 555.

AE 424. Aerodynamic Theory (4). Studies the dynamics of compressible and incompressible flow, two- and three-dimensional airfoil theory, viscous flow, and drag; an introduction to performance. Prerequisites: MATH 555, AE 324 (no grade lower than one that generates 2.000 or more credit points per credit hour will be accepted for these courses); and AE 373. Corequisite: ME 521.

AE 460. Selected Topics (1-3). New or special topics presented on sufficient demand. Repeatable for credit when subject material warrants. Prerequisite: instructor’s consent.

AE 481A. Co-op Education (1). See AE 281A. Graded Cr/NCr unless student has received permission before enrolling for course to be used as a technical elective. May be repeated. Prerequisites: junior standing and approval by the appropriate faculty sponsor.

AE 481P. Co-op Education (1). See AE 281P. Graded Cr/NCr unless student has received permission before enrolling for course to be used as a technical elective. May be repeated. Prerequisites: junior standing and approval by the appropriate faculty sponsor.

Courses for Graduate/Undergraduate Credit


AE 508. Systems Dynamics (3). Lumped parameter modeling; classical, numerical, transform, and state model methods of solution; introduction to systems with feedback; analogues of various physical systems. Prerequisites: AE 373 and MATH 555.


AE 525. Flight Structures I (3). Stress analysis of flight vehicle components. Prerequisite: AE 333 (no grade lower than one that generates 2.000 or more credit points per credit hour will be accepted for this course). Corequisite: MATH 555.


AE 528. Aerospace Design I (4). 2R; 2L. Methodology of flight vehicle design; mission objectives, regulations, and standards; use of hand and computer methods for configuration development and component sizing; ethics; and liability in design. Prerequisites: AE 502, 514, and 525.


AE 625. Flight Structures II (3). Strength analysis and design of flight vehicle components. Introduction to energy methods and variational principles. Application of finite element method to the analysis of flight vehicle structures. Special projects in structural analysis and design. Prerequisite: AE 333, 525.
AE 628. Aerospace Design II (4). 2R; 2L. Preliminary design of flight vehicles, design iteration, sensitivity studies, optimization, economic considerations, and introduction to project management. Prerequisite: AE 528.

AE 660. Selected Topics (1–3). New or special topics presented on sufficient demand. Repeatable for credit when subject material warrants. Prerequisite: instructor’s consent.

AE 690. Independent Study (1–3). Arranged individual independent study in specialized areas of aerospace engineering under the supervision of a faculty member. Repeatable for credit. Prerequisite: consent of supervising faculty member.

AE 702. Aerospace Propulsion II (3). In-depth study of rocket and jet propulsion. Turbojet and rocket engine components. Effect of operating variables on turbojet cycles and rocket performance. Prerequisite: AE 502 or instructor’s consent.

AE 703. Rotor Aerodynamics (3). Aerodynamics of rotors, including propellers, wind turbines and helicopters; momentum, blade element, and potential flow analysis methods; helicopter dynamics, control, and performance. Prerequisite: AE 424.

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 actuator, 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 714, and AE 607 or EE 684 or ME 659.

AE 711. Intermediate Aerodynamics (3). Studies potential flow equations of motion, singularity solutions, principle of superposition, conformal mapping, thin airfoil 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). 1R; 3L. Advanced topics in wind tunnel testing, including analysis and sensitivity, modeling techniques, flexure design and calibration, control surface loads and moments, laser velocimetry, hot film anemometry, dynamic signal processing, flow measurement probes, flow visualization using smoke tunnels and water tunnel. Prerequisite: AE 512 or instructor’s consent.


AE 715. Intermediate Space Dynamics (3). Advanced topics in orbital mechanics—vector mechanics perspective of the two-body problem; fast transfers; interplanetary missions including gravity assist maneuver and intercept problem; atmospheric entry. Prerequisite: AE 415 or instructor’s consent.

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 333, 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 753. Mechanics of Laminated Composites (3). A descriptive classification of advanced composite materials and their constituents; mechanics of lamina and laminates; testing for material properties; lamina and laminate failure criteria; laminate strain allowances; structural analysis (beams and axially loaded members); design guidelines; introduction to manufacturing methods, repair, and nondestructive testing. Prerequisites: AE 333 and senior standing.

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 555, AE 333 and 373. Please see the Graduate Catalog for courses numbered 800 and above.

Electrical Engineering and Computer Science (EECS)

Students in the electrical engineering and computer science department have three degree programs from which to choose, electrical engineering, computer engineering, or computer science.

The objectives of the electrical engineering program are (1) to enable students to enter the electrical 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 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.

The objectives of the computer science program are to (1) enable students to enter the computer science field by providing them with the fundamental knowledge necessary for the practice of computer science, including core computer science technologies and their applications 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 science and related fields.

All programs require a total of 128 credit hours minus hours from advanced
placement credit. The programs have a minimum of 62 credit hours in common. The common hours are made up of communication skills (9 hours), math and science courses (35 hours), general education courses (18 hours). The remaining 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. The programs are structured to assure that electrical engineering students are familiar with computers and computer hardware and computer engineers and scientists have a background in electrical engineering principles. All programs require courses that cover fundamentals common to engineering degree programs at WSU.

Electrical engineering, computer engineering, and computer science 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 student the opportunity to apply skills acquired during their coursework 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 communication 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.

The computer science degree offers courses that emphasize core computer science technologies and their applications.

Specific requirements for the electrical engineering, computer engineering, and computer science programs are given below.

**Electrical Engineering**

<table>
<thead>
<tr>
<th>Course</th>
<th>Hrs.</th>
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<tr>
<td>General Education Courses</td>
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<tr>
<td>Basic Skills:</td>
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</tr>
<tr>
<td>ENGL 101/100 and 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 125 Introductory Logic</td>
<td>3</td>
</tr>
<tr>
<td>PHIL 354 Ethics/Computers</td>
<td>3</td>
</tr>
<tr>
<td>Other fine arts/humanities &amp; social/behavioral sciences courses</td>
<td>12</td>
</tr>
<tr>
<td>Mathematics/Natural Sciences:</td>
<td></td>
</tr>
<tr>
<td>MATH 242 &amp; 243 Calculus I &amp; II</td>
<td>10</td>
</tr>
<tr>
<td>MATH 321/322 Discrete Structures</td>
<td>3</td>
</tr>
<tr>
<td>MATH 511 Linear Algebra</td>
<td>3</td>
</tr>
<tr>
<td>MATH 555 Differential Equations</td>
<td>3</td>
</tr>
<tr>
<td>PHYS 313 &amp; 314 Physics for Scientists I &amp; II</td>
<td>8</td>
</tr>
<tr>
<td>CHEM 211 General Chemistry</td>
<td>5</td>
</tr>
<tr>
<td>Physics courses</td>
<td>15</td>
</tr>
</tbody>
</table>

**Engineering Core Courses:**

| AE 223 Statics | 3 |
| EE 282 Circuits | 4 |
| IME 255 Engineering Economy | 3 |
| ME 398 Thermodynamics | 3 |

**Major Courses:**

| CS 138 Engineering Computing in C | 4 |
| CS 194 Introduction to Digital Design | 4 |
| CS 238 Assembly Lang. Programming for Engineers | 3 |
| CS 300 Data Structures & Algorithms | 4 |
| CS 394 Intro to Computer Architecture | 3 |
| CS 540 Operating Systems | 3 |
| CS 594 Microprocessor Based System Design | 4 |
| EE 284 Circuits II | 3 |
| EE 383 Signals and Systems | 3 |
| EE 492 Electronic Circuits I | 3 |
| EE 585 & 595 Electrical Design Project I & II | 4 |

* Refer to graduation requirements at the beginning of this section for details.

**Computer Science (CS)**

**Programming Courses**

No credit toward BS Degree in Computer Science

**Computer Science (CS)**

**Programming Courses**

No credit toward BS Degree in Computer Science

**Course | Hrs.**
| Basic Skills: | |
| ENGL101/100 and 102 College English I & II | 6 |
| COMM 111 Public Speaking | 3 |
| PHIL 125 Introductory Logic | 3 |
| PHIL 354 Ethics/Computers | 3 |
| Other fine arts/humanities & social/behavioral sciences courses | 12 |
| Mathematics/Natural Sciences: | |
| MATH 242 & 243 Calculus I & II | 10 |
| MATH 511 Linear Algebra | 3 |
| MATH 321 & 322 Discrete Structures | 6 |
| PHYS 313 & 314 Physics for Scientists I & II | 8 |
| CHEM 211 General Chemistry | 5 |
| Physics courses | 15 |

**Engineering Core Courses:**

| CS 138 Engineering Computing in C | 4 |
| CS 194 Introduction to Digital Design | 4 |
| CS 238 Assembly Lang. Programming for Engineers | 3 |
| CS 300 Data Structures & Algorithms | 4 |
| CS 394 Intro to Computer Architecture | 3 |
| CS 540 Operating Systems | 3 |
| CS 594 Microprocessor Based System Design | 4 |
| EE 284 Circuits II | 3 |
| EE 383 Signals and Systems | 3 |
| EE 492 Electronic Circuits I | 3 |
| EE 585 & 595 Electrical Design Project I & II | 4 |

* Refer to graduation requirements at the beginning of this section for details.

**At least 6 out of the 12 hours must be from the EECS department. Up to 2 credit hours of co-op can be used as non-departmental technical electives.**
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 303. 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 138. Engineering Computing in C (4). Introductory course provides fundamental concepts in C language with applications to basic engineering problems. Stresses syntax rules as well as problem solving approaches. Includes laboratory exercises that help students develop hands-on programming skills. Prerequisite: MATH 111 or 112 or equivalent.

>CS 210. Introduction to Computer Science (3). 3R; 3L. An introduction to computer design concepts. Includes number systems, Boolean algebra, Karnaugh maps, combinational circuit design, adders, multiplexers, decoders, sequential circuit design, state diagram, flip flops, sequence detectors, and test different combinational and sequential circuits. Uses CAD tools for circuit simulation. Prerequisite: MATH 111 or equivalent.

>CS 211. Problem Solving and Programming in C (4). 3R; 2L. First course in programming in a high-level language. Emphasizes programming rather than theory. Prerequisites: CS 300 and 322 with a C or better in each.

CS 238. Assembly Language Programming for Engineers (3). An introduction to basic concepts of computer organization and operation. Studies machine and assembly language programming concepts that illustrate basic principles and techniques. Laboratory exercises given for experience using personal computers. Prerequisite: CS 138.

CS 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;ABEL; PLD-based design using ABEL; CMOS family; TTL to CMOS and CMOS to TTL interfacing. Uses CAD tools for circuit simulation. Prerequisite: CS 194. Corequisite: CS 138.

Upper-Division Courses

>CS 300. Data Structures and Algorithms I (3). 3R; 1L. General education further study course. Basic data structures and associated algorithms. Includes structures such as array lists, linked lists, stacks, queues, binary trees and hash tables. Analyzes algorithms for efficiency and correctness. Prerequisites: CS 210 and 211, each with a C or better.

CS 312. Assembly Language and Systems Programming (3). 3R; 1L. Fundamentals of assembly language programming. Includes assembler, text editor, arithmetic, machine instructions, macros, code view debugger, and memory segments. Programming assignments reinforce textbook knowledge. Prerequisites: CS 210 and 211, each with a C or better.

CS 321. Discrete Structures I (3). Cross-listed as MATH 321. Provides a mathematical foundation essential to the entire computer science curriculum. Includes propositional and predicate logic, induction, recursion, and counting techniques. Prerequisites: MATH 242 with a C or better or CS 210 and 211, each with a C or better.


CS 350. Workshop (1–5). Short-term courses with special computer science emphases. Repeatable for credit. No credit toward the major or minor in computer science. Prerequisite: departmental consent.


CS 410. Programming Paradigms (3). 3R; 1L. Exposure to computer programming in various styles of languages. Emphasizes programming rather than theory. Prerequisites: CS 300 and 322 with a C or better in each.


CS 444. Introduction to Unix (3). 3R; 1L. Learn the fundamentals of the Unix operating system. Topics 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 460. Algorithm Design Methodologies (3). Advanced course on problem modeling and techniques for designing algorithms for real-world problems. Topics include dynamic programming, divide and conquer, greedy algorithms, backtracking and heuristics. Involves projects for improving algorithm design and programming skills. Prerequisite: CS 300.

CS 464. Computer Networks (3). First course on computer networking. Introduces OSI layers, direct link networks, packet switching, routing, end-to-end protocols and network applications. Prerequisites: CS 194, 300.

CS 465. Oracle Development Environment (3). 3R; 1L. Oracle is the most widely used database management system in the world. Course covers 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 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. Offered Cr/NoCr only. Prerequisite: departmental consent.

CS 497. Special Topics (1–3). 1–3; 1L. Special topics of current interest in computer science. Prerequisites: departmental consent.

CS 498. Individual Projects (2–3). Repeatable for a total of 6 hours of credit. Graded S/U only. Prerequisite: departmental consent.

CS 499. Topics in Computer Science (1). 1R; Exposes senior undergraduate students to advanced professional activities such as reading research journals, writing research papers, making technical presentations, and taking advanced exams. Only for computer science BS majors with senior standing.

Courses for Graduate/Undergraduate Credit

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 syntax, and semantics. Introduction to the concepts of different styles of languages—impertative languages, functional languages, logic languages, object-oriented languages, etc. Prerequisites: CS 300 and 322, each with a C or better.

CS 540. Operating Systems (3). 3R; 1L. The fundamental principles of operating systems: process synchronization, scheduling, resource allocation, deadlock, memory management, file systems. Studies a specific operating system in depth. Programming assignments consist of modifications and enhancements to the operating system studied. Prerequisites: CS 300 and 312, each with a C or better.

CS 560. 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, 322; MATH 243 and STAT 460 with a C or better in each.

CS 594. Microprocessor Based System Design (4). 3R; 1L. Presents development of microprocessor based systems. Studies interfacing the address bus, data bus, and control bus to the processor chip. Memory systems and I/O devices interfaced to the appropriate busses. Vendor-supplied, special-purpose chips, such as interrupt controllers, programmable I/O devices, and DMA controllers, integrated into systems designed in class. Lab gives hands-on experience. Prerequisites: CS 394, or CS 288 and 294.

CS 615. Compiler Construction (3). 2R; 2L. First compiler course for students with a good background in programming languages and sufficient programming experience. Covers over-all 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 its 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 use of signals and concepts of interprocess communication with pipes and FIFOs. Students must have prior knowledge of C language and its use of structures and pointers. Prerequisite: CS 300 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. Prerequisites: CS 300 and 322, each with a C or better.

CS 666. Computer Forensics (3). Computer crimes include security violations, unauthorized access, and theft of sensitive information. Discusses procedures for the identification, preservation, and extraction of electronic evidence that can be legally used when a computer crime is committed. From the network perspective, course discusses auditing and investigation of network and host intrusions. Forensic tools and resources for system administrators and information system security officers are covered. Legal issues related to computer and network forensics are discussed. There are about eight programming-related laboratory exercises in this class. Intended for senior undergraduate students and graduate students majoring in computer science. Prerequisites: CS 138 and 540. In addition, good programming skills in one of the languages (C, C++, or Java), familiarity with the operating systems (UNIX/Windows) are required.

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 program 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, database design, distributed processing, project management, and documentation. 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. Prerequisite: departmental consent.

CS 700. Workshop in Computer Science (1–5). Short-term courses with special focus on introducing computer science concepts. Repeatable for credit. Prerequisite: departmental consent.

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 744. Introduction to VHDL (3). 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: CS 138 and 394.

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 764. Routing and Switching I (4). 3R; 3L. An introductory course which studies different hardware technologies, like Ethernet and token ring. Discusses VLAN. Introduces different routing protocols. Includes hands-on experience in the CS department's routing and switching lab. Prerequisite: CS 736 or departmental consent.

CS 765. Routing and Switching II (4). 3R; 3L. Discusses different bridging techniques, including SRB, RSRB, and DLSW. Also includes advanced routing protocols, like OSPF and EIGRP, and route redistribution. Includes hands-on experience in the EECs department's routing and switching lab. Prerequisite: CS 764 or departmental consent.

CS 766. Information Assurance and Security (3). Provides basic concepts in information assurance and security including encryption, digital certificates, security in networks, operating systems, and databases. Topics in intrusion detection, legal and ethical issues in security administration will also be discussed. Prerequisite: CS 736 or 764, or 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 322 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 Cr/NCr only. Prerequisites: departmental consent and graduate GPA of 3.00 or above.

CS 798. Individual Projects (1–3). Allows beginning graduate students and mature undergraduate students to pursue individual projects of current interest in computer science. Graded S/U only. Prerequisite: departmental consent.

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

Electrical Engineering (EE)

Lower-Division Courses

EE 284. Circuits II (3). Includes circuits with mutually coupled elements, transfer functions emphasizing frequency response, two-port networks, Laplace transforms and application to transient circuit analysis, and the application of computer-aided analysis software toward circuit analysis and design. Prerequisites: EE 282, with a grade of C or better, and MATH 243. Corequisite MATH 555.

Upper-Division Courses
EE 383. Signals and Systems (3). Properties of signals and systems, convolution and its application to system response, Fourier series representation of periodic signals, Fourier transforms and continuous spectra, filters, time domain sampling, and Z-transforms. Many of these topics involve discrete as well as continuous systems. Prerequisites: CS 138, EE 284, and MATH 555.

EE 463. Applied Engineering Electromagnetics (3). Maxwell’s equations in integral and differential form. Transient and steady state response of circuits containing transmission lines with emphasis on applications in communications and digital electronics. Additional topics in optics and electromagnetic radiation as time permits. Prerequisites: MATH 344 and EE 383.

EE 477. Selected Topics in Electrical Engineering (1–4). New or special courses presented on sufficient demand. Repeatable for credit. Prerequisite: departmental consent.

EE 481A. Co-op Education (1). Provides the student the opportunity to obtain practice in application of engineering principles by employment in an engineering-related job integrating coursework with a planned and supervised professional experience. 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 assignments and need not be enrolled in any other course. Offered Cr/NCr only. Prerequisites: junior standing and approval by appropriate faculty sponsor.

EE 481P. Co-op Education (1). Provides the student the opportunity to obtain practice in application of engineering principles by employment in an engineering-related job integrating coursework with a planned and supervised professional experience. Individualized programs must be formulated in consultation with, and approved by, appropriate faculty sponsors and cooperative education coordinators. Students must enroll concurrently in a minimum of 6 hours of coursework including this course in addition to a minimum of 20 hours per week at their co-op assignments. Offered Cr/NCr only. Prerequisites: junior standing and approval by appropriate faculty sponsor.


EE 492. Electronic Circuits I (3). Introduces semiconductor devices and applications in discrete and integrated circuit design. Applications include, but are not limited to, op-amp circuits, rectification, and transistor amplifiers. Corequisite: EE 284.


Courses for Graduate/Undergraduate Credit

EE 577. Special Topics in Electrical and Computer Engineering (1–4). New or special courses presented on sufficient demand. Repeatable for credit. Prerequisite: departmental consent.

EE 585. Electrical Design Project I (2). 3L. A design project under faculty supervision chosen according to the student’s interest. Prerequisites: COMM 111 and departmental consent. Does not count toward a graduate electrical engineering degree.

EE 586. Introduction to Communication Systems (4). 3R; 3L. Fundamentals of communication systems; models and analysis of source, modulation, channel, and demodulation in both analog and digital form. Reviews Fourier Series, Fourier Transform, DFT, Probability, and Random Variables. Studies in Sampling, Multiplexing, AM and FM analog systems, and additive white Gaussian noise channel. Additional topics such as FSK and FSK digital communication systems covered as time permits. Prerequisites: EE 383 and either STAT 471 or IME 254.

EE 588. Advanced Electric Motors (3). Advanced electric motor applications and theory. Includes single-phase motors, adjustable speed AC drive applications, and stepper motors. Prerequisites: EE 488 and 492.

EE 595. Electrical Design Project II (2). 3L. A continuation of EE 585. Prerequisite: EE 585. Will not count toward a graduate electrical engineering degree.

EE 598. Electric Power Systems Analysis (3). Analysis of electric utility power systems. Topics include analysis and modeling of power transmission lines and transformers, power flow analysis and software, and an introduction to symmetrical components. Prerequisite: EE 282.


EE 688. Power Electronics (4). 3R; 3L. Deals with the applications of solid-state electronics for the control and conversion of electric power. Gives an overview of the role of the thyristor in power electronics application and establishes the theory, characteristics and protection of the thyristor. Presents controlled rectification, static frequency conversion by means of the DC link-converter and the cyclo converter, emphasizing frequency, and voltage control and harmonic reduction techniques. Also presents requirements of forced commutation methods as applied to DC-DC control and firing circuit requirement and methods. Introduces applications of power electronics to control AC and DC motors using new methods such as microprocessor. Prerequisite: EE 492.

EE 691. Integrated Electronics (3). A study of BJTs and MOS analog and digital integrated circuits. Includes BJTs, BMOS, and MOS fabrication; application specific semi-custom VLSI arrays; device performance and characteristics; and integrated circuit design and applications. Prerequisites: CS 194 and 493 or departmental consent.

EE 697. Electric Power Systems Analysis II (3). Analysis, design, modeling, and simulation of high-voltage electric power transmission systems and rotating generators. Simulations include short circuit studies, economic dispatch, and transient stability. Prerequisite: EE 598.

EE 726. Digital Communication Systems I (3). Presents the theoretical and practical aspects of digital and data 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, DPSK, QPSK, FSK, MSK, and other techniques appropriate for communicating digital information in both baseband and band-pass systems; intersymbol interference; effects of noise on system performance; optimum systems; and general Mary digital systems in signal-space. Prerequisites: EE 586 and 754.

EE 754. Probabilistic Methods in Systems (3). A course in random processes designed to prepare the student for work in communications, 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: EE 383 and either STAT 471 or IME 254.

EE 777. Selected Topics in Electrical Engineering (1–4). New or special courses presented on sufficient demand. Repeatable for credit. Prerequisite: departmental consent.

EE 781. 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: EE 383 and 492.


EE 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.

EE 791. Design of Analog Integrated Circuits (3). Concerned primarily with the design of analog integrated circuits, and detailed analysis. The design concentrates on MOS devices, but some attention will also be given to bipolar technology. Dynamic loads will dominate, as the need is to limit passive components such as resistors and capacitors as much as possible. Specific circuits include current sources, voltage references, differential amplifiers, with operational amplifiers receiving the emphasis. SPICE simulation will be extensively used, including parameter sweeps, temperature effects, and sensitivity analysis as well as frequency response and time-domain analysis. Prerequisite: EE 691.


EE 796. Electric Power Distribution (3). Analysis, design, modeling, and simulation of radial medium-voltage electric power distribution systems. Simulations include power flow and short circuit. Prerequisite: EE 598.

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

Industrial and Manufacturing Engineering (IME)

The industrial and manufacturing engineering (IME) 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 experience designed and continuously improved through the involvement and contribution of its constituents: students and alumni, potential employers of program graduates, and faculty.

The IME department offers two undergraduate degree programs, one in industrial engineering (BSIE) and another in manufacturing engineering (BSMfgE). Both degree programs are accredited by the Engineering Accreditation Commission of the Accreditation Board for Engineering & 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 managerial skills while receiving advanced technical knowledge.

The department also offers graduate certificate programs in the following seven areas: foundations of six sigma and quality improvement, lean systems, systems engineering and management, industrial ergonomics and safety, composite materials and processing, advanced manufacturing analysis, and design for manufacturing.

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, Rapid Prototyping Lab, CIM Lab, Ergonomic Lab, Virtual Reality 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 (IEs) 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. IEs apply a full range of analytical, simulation, and experimenta
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 an urban university. Specifically, the educational objectives of the industrial engineering program are to prepare its graduates to do the following:

1. Obtain employment in jobs related to design, implementation and improvement of systems in manufacturing and service sectors;
2. Pursue graduate studies; and
3. Achieve professional success through the program’s emphasis on solving real world problems in industries and organizations in the Wichita metropolitan area.

Sequence of Courses

The BS in industrial engineering program requires the completion of 128 credit hours for graduation, minus hours commensurate with advanced placement credit. Students may select 12 hours of technical electives to emphasize the study of engineering systems, ergonomics, or manufacturing engineering. This allows students to specialize in a specific area of industrial engineering. Students’ programs are determined by their own interests in consultation with their faculty advisers. Specific requirements for the
The educational objectives of the manufacturing engineering program are driven by WSU’s mission as an urban university. Specifically, the educational objectives of the manufacturing engineering program are to prepare its graduates to:

1. Obtain employment in jobs related to design, planning and control, implementation, and improvement of manufacturing processes and systems;
2. Pursue graduate studies; and
3. Achieve professional success throughout the program’s emphasis on solving real world problems in industries and organizations in the Wichita metropolitan area.

Sequence of Courses
The BS in manufacturing engineering program requires the completion of 128 credit hours for graduation, minus hours commensurate with advanced placement credit. Students may select 9 hours of technical electives to emphasize the study of advanced manufacturing engineering concepts and related topics in other engineering disciplines. Selection of appropriate courses would allow the students to tailor their studies to fit their individual interests and needs. Students’ programs of study are determined in consultation with their faculty advisers.

Specific requirements for the manufacturing engineering program are given below.

Course ................................. Hrs.

General Education Courses
ENGL 101/100 and 102 College English I & II 6
COMM 111 Public Speaking 3
PHIL 385 Engineering Ethics 3
Fine arts, social/humanities sciences, and humanities courses* 15

Mathematics/Natural Sciences:
MATH 242, 243 & 344 Calculus I, II, & III 13
MATH 511 Linear Algebra 3
PHYS 313 & 314 Physics for Scientists I & II 8
CHEM 211 General Chemistry 5
IME 254 Engr. Probability & Stats. I 3

Engineering Core Courses:
AE 223 Statics 3
EE 282 Circuits I 4
IME 255 Engineering Economy 3
ME 398 Thermodynamics I 3

Major Courses:
CS 211 Problem Solving & Prg. in C (4), or
MIS 310 Fund. of Programming (3) 4
ME 250 Materials Engineering 3
IME 222 Engineering Graphics 3
IME 258 Mfg. Methods & Materials I 3
IME 452 Work Systems 3
IME 524 Engr. Probability & Stats. II 3
IME 549 Industrial Ergonomics 3
IME 550 Operations Research 3
IME 553 Production Systems 3
IME 554 Statistical Quality Control 3
IME 556 Information Systems 3
IME 563 Facilities Planning & Design 2
IME 565 Systems Simulation. 3
IME 590 & 690 Design I & II 6

Technical electives** 12

* Refer to graduation requirements at the beginning of this section for details.
** At least 6 hours must be from the IME 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 BSMfgE program 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
The educational objectives of the manufacturing engineering program are driven by WSU’s mission as an urban university. Specifically, the educational objectives of the manufacturing engineering program are to prepare its graduates to:

1. Obtain employment in jobs related to design, planning and control, implementation, and improvement of manufacturing processes and systems;
2. Pursue graduate studies; and
3. Achieve professional success throughout the program’s emphasis on solving real world problems in industries and organizations in the Wichita metropolitan area.

Sequence of Courses
The BS in manufacturing engineering program requires the completion of 128 credit hours for graduation, minus hours commensurate with advanced placement credit. Students may select 9 hours of technical electives to emphasize the study of advanced manufacturing engineering concepts and related topics in other engineering disciplines. Selection of appropriate courses would allow the students to tailor their studies to fit their individual interests and needs. Students’ programs of study are determined in consultation with their faculty advisers.

Specific requirements for the manufacturing engineering program are given below.

Course ................................. Hrs.

General Education Courses
ENGL 101/100 and 102 College English I & II 6
COMM 111 Public Speaking 3
PHIL 385 Engineering Ethics 3
Fine arts, social/humanities sciences, and humanities courses* 15

Mathematics/Natural Sciences:
MATH 242, 243 & 344 Calculus I, II, & III 13
MATH 511 Linear Algebra 3
PHYS 313 & 314 Physics for Scientists I & II 8
CHEM 211 General Chemistry 5
IME 254 Engr. Probability & Stats. I 3

Engineering Core Courses:
AE 223 Statics 3
EE 282 Circuits I 4
IME 255 Engineering Economy 3
ME 398 Thermodynamics I 3

Major Courses:
CS 211 Problem Solving & Prg. in C (4), or
MIS 310 Fund. of Programming (3) 4
ME 250 & 251 Materials Engineering & Lab 4
ME 439 ME Design I 3
IME 222 Engineering Graphics 3

IME 254 Engr. Probability & Stats. I 3
IME 550 Operations Research 3
IME 553 Production Systems 3
IME 554 Statistical Quality Control 3
IME 556 Information Systems 3
IME 563 Facilities Planning & Design 2
IME 565 Systems Simulation. 3
IME 590 & 690 Design I & II 6

Technical electives** 12

* Refer to graduation requirements at the beginning of this section for details.
** At least 6 hours must be from the IME department and the rest from a departmentally approved list.

Manufacturing Engineering Minor
A minor in manufacturing engineering consists of 23 hours including IME 222, ME 250/251, IME 258, AE 333, IME 558, IME 576 or IME 676 and 3 hours from an approved list. At least 12 hours must be taken at WSU with at least a 2.250 GPA in those courses.

Industrial and Manufacturing Engineering (IME)

Lower-Division Courses
IME 150. Workshop in Industrial and Manufacturing Engineering (1–3). Offered from time to time on various topics in industrial or manufacturing engineering.

IME 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.


IME 258. Manufacturing Methods and Materials I (3). 2R, 3L. Provides a basic 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: MATH 123.

IME 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 assignments and need not be enrolled in any other course. May be repeated. Offered Cr/NCr only. Prerequisites: 30 hours toward Bachelor of Science in industrial engineering degree and approval by appropriate faculty sponsor.

Upper-Division Courses

IME 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: IME 254 and 255.

IME 480. Selected Topics in Industrial Engineering (1–4). New or special course material presented upon sufficient student demand. Repeatable for credit. Prerequisite: departmental consent.

IME 481P. Co-op Education (1). See IME 281P. Prerequisites: junior standing and approval by appropriate faculty sponsor.

Courses for Graduate/Undergraduate Credit

IME 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: IME 254.


IME 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: IME 452 and CS 211 or MIS 310.

IME 557. Safety Engineering (3). Environmental aspects of accident prevention, industrial compensation, and safety legislation. Fundamental concepts of occupational health and hygiene. Prerequisite: IME 254 or STAT 471.

IME 558. Manufacturing Methods and Materials II (4). 3R, 3L. Covers 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, nontraditional machining, and process monitoring through measurement of manufacturing process variables. Also includes laboratory experience and plant tours. Prerequisites: IME 258 and ME 250.

IME 563. Facilities Planning and Design (2). Quantitative and qualitative approaches to problems in facilities planning and design, emphasizing activity relationships, space requirements, materials handling and storage, and plant layout. Prerequisites: IME 258, 452, 550.

IME 565. Systems Simulation (3). The design of simulation models and techniques for use in designing and evaluating discrete systems, including manufacturing systems too complex to be solved analytically. Emphasizes general purpose computer simulation languages. Prerequisites: IME 553 and CS 211 or MIS 310. Corequisite: IME 524.

IME 576. Composites Manufacturing (3). 2R, 3L. Introduction to composite materials, the various manufacturing methods used in the aerospace industry and prevalent quality assurance methods. Students are introduced to inspection, damage control and repair techniques as well as material handling, safety and environmental requirements. Course contains laboratory modules designed to provide hands-on experience to emphasize the practical aspects of the topics covered. Prerequisites: AE 333 or instructor's consent.

IME 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: IME 222 and CS 138 or equivalent.


IME 664. Engineering Management (3). Introduction to the design and control of technologically 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: IME 254 and 255.

IME 676. Aircraft Manufacturing and Assembly (3). Covers key aspects of assembly design for aircraft structures. First module covers design of jigs and fixtures to locate parts and machine features to tolerance and the effect of part and tool stiffness on the tolerances. Second module covers gage design and gage studies and geometric dimensioning and tolerancing. Third module covers assembly planning and best practices for aircraft assembly. Laboratory experiments and case studies are used to understand issues related to aircraft assembly. Prerequisite: IME 258.

IME 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.


IME 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 is developed and applied using modern computer-aided analysis techniques. Prerequisites: IME 254 and 255.

IME 749. Advanced Ergonomics (3). A continuation of IME 549. Includes principles and application of human factors to the design of the workplace, displays, control systems, hand tools, and video display terminals. Prerequisite: IME 549.

IME 750. Industrial Engineering Workshops (1–4). Various topics in industrial engineering. Prerequisite: departmental consent.

IME 754. Reliability and Maintainability Engineering (3). Studies problems of quantifying, assessing, and verifying reliability. Presents various factors that determine the capabilities of components emphasizing practical applications. Examples and problems cover a broad range of engineering fields. Prerequisite: IME 524, or IME 724.

IME 755. 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: IME 524, or IME 724.

IME 758. Analysis of Manufacturing Processes (3). Introduces students to plasticity and builds upon their knowledge of mechanics and heat transfer in order to analyze various manufacturing processes. Numerical techniques (mainly finite element analysis) as well as theoretical methods are introduced and applied to analysis of processes such as open and closed die forging, superplastic forming, machining, grinding, laser welding, etc. The effect of friction, material properties and process parameters...
on the mechanics of the processes and process outputs is the main focus of study. Prerequisite: AE 333.

IME 760. Ergonomics Topics (3). New or special courses on topics in ergonomics and human factors engineering. May be repeated for different topics. Prerequisite: departmental consent.

IME 764. 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: IME 254, 255.

IME 767. Lean Manufacturing (3). Introduces lean concepts as applied to the manufacturing environment. Deals with the concepts of value, value stream, flow, pull, and perfection. Includes waste identification, value stream mapping, visual controls, and lean metrics. Prerequisite: IME 553.

IME 768. Metal Machining: Theory and Applications (3). Provides basic understanding of the various conventional metal machining processes and the nature of various phenomena that occur in it. Includes fundamental treatments of the mechanics of chip formation under orthogonal and oblique conditions, temperatures in machining, tool materials, tool wear, surface roughness, and numerical and mechanistic modeling methods, and discusses current research trends and possible future developments. Prerequisite: AE 333 or ME 250.

IME 775. Computer Integrated Manufacturing (3). A study of the concepts, components, and technologies of CIM systems; enterprise modeling for CIM; local area networks; CAD/CAM interfaces; information flow for CIM; shop floor control; and justification of CIM systems. Prerequisites: CS 138 or knowledge of a programming language, IME 558.

IME 778. Machining of Composites. (3). Introduction to a wide range of machining processes used in the secondary manufacturing of composites, focusing on scientific and engineering developments affecting the present and future of composites manufacturing. Major traditional and non-traditional machining processes are discussed. The effect of process parameters, material parameters, and system parameters on the material removal rate and the quality of the machined part are also discussed. Emphasis given to the application of non-traditional machining processes in the manufacture of fiber-reinforced polymers used in the aerospace and aviation industries. Students learn the advantages and disadvantages of each machining process and how to select the most appropriate process for different materials and geometries. Prerequisites: AE 333, IME 578, or approval of instructor.

IME 780. Topics in Industrial Engineering (3). New or special courses are presented under this listing. Repeatable for credit when subject matter warrants.

IME 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 IME. Repeatable for credit. May not be used to satisfy degree requirements. Prerequisite: departmental consent and graduate GPA of 3.00 or above. Cr/NC only.

IME 783. Supply Chain Management (3). Quantitative and qualitative techniques used in the design and management of the supply chain. Includes distribution management, multi-plant coordination, optimal design of the logistics network, vendor management, and the risk pooling concept, and integrating decision support systems (DSS) in the management of the supply chain. Prerequisite: IME 553.

IME 785. Tolerancing in Design and Manufacturing (3). Provides a basic understanding of the theory and application of tolerancing in design, manufacturing, and inspection. Reviews current literature in the area of tolerancing and inspection. Includes detailed discussion of the ASME standards on geometric dimensioning and tolerancing (GD&T), GD&T verification procedures, tolerance analysis and allocation, statistical tolerancing, and Taguchi’s approach to tolerancing. Prerequisite: IME 254 or instructor’s consent.

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

**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 engines 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; and
- study of globalization, moral, ethical, economic, and business issues related to mechanical engineering.

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, communication, economic, and business skills needed to be a successful practicing engineer. The program includes components in mathematics and natural sciences, 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 structure 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**

- Educate students to be successful mechanical engineers in their professions in a global environment;
- Prepare students to pursue life-long learning; and
- Prepare students for real-world problems by working on industry-based projects.

**Sequence of Courses**

The program requires the completion of 134 credit hours for graduation, minus hours commensurate with advanced placement credit. Specific degree requirements are given below. All the prerequisite courses must have a grade that generates 2.00 or more credit points per credit hour.

**Course Hrs.**

**General Education Courses**

**Basic Skills:**

ENGL 101/100 and 102 College English I & II
**Mechanical Engineering Honors Track**

**Admission Requirements**
1. Students must be admitted to the Emory Lundquist Honors program;
2. Students must be within 60 hours of degree completion;
3. Students must have an overall GPA of at least 3.500 and a GPA of 3.500 in all engineering courses; and
4. Students must complete a letter of application to the mechanical engineering chairperson including the following:
   a. Transcript;
   b. Resume; and
   c. One-page essay on academic and career plans including an undergraduate research idea.

**Completion Requirements**
1. Formal admission into the mechanical engineering departmental honors track;
2. Maintain a minimum overall GPA of 3.500 and a minimum GPA of 3.500 in mechanical engineering courses; and
3. One of the following two options:
   a. Complete any of the ME 600- or 700-level elective courses with a grade of B or better; or
   b. For students with research as part of their professional interests—enroll in ME 678, Studies in Mechanical Engineering, and complete an undergraduate research project under faculty guidance, resulting in an honors report and presentation of a technical paper highlighting the student’s research in a local technical venue such as GRASP (Undergraduate Research and Scholarly Projects), or a relevant ASME technical conference or equivalent.

**Minor in Mechanical Engineering**

A minor in mechanical engineering consists of the courses ME 339, 398, 439, 521, and 522, as well as any prerequisites required by these courses.

**Lower-Division Courses**

**ME 250. Materials Engineering (3).** Studies important structural materials used in engineering, including metals, polymers, and composites, primarily from a phenomenological viewpoint. Prerequisites: CHEM 211, MATH 242.

**ME 251. Materials Engineering Laboratory (1). 3L.** Companion 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 spreadsheet skills and C programming language as applied to ME problems. Also covers Matlab. Includes fundamentals of linear algebra and other computational tools. Corequisite: MATH 243.

**ME 339. Design of Machinery (3).** Introduces engineering design process; synthesis and analysis of machinery and machines. Kinematic (position, velocity, and acceleration) and inverse dynamic analysis of planar mechanisms by analytical, graphical, and computer methods. Design of linkages for motion, path, and function generation; cam design. Computer-aided engineering as an approach in engineering design; projects on practical engineering designs for machinery. Prerequisite: ME 222. Corequisite: AE 373.

**ME 360. 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 398. 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 439. Mechanical Engineering Design I (3).** Principles of mechanical design, emphasizing practice in the application of many mechanical design elements: shafts, bearings, gears, brakes, clutches, thread fasteners, etc. Includes machine elements design, materials election, fatigue, stress concentration, statistical concepts, and cost standardization. Innovative practical applications demanding integration of machine elements into a practical device. Prerequisites: ME 250, AE 333, and MATH 555.

**ME 450. Selected Topics in Mechanical Engineering (1–3).** New or special topics presented on sufficient demand. Repeatable for credit when subject material warrants. Prerequisite: departmental 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).** Introduction to engineering practice by working in industry in an engineering-related job. 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 assignments and need not be enrolled in any other course. Prerequisites: junior standing and approval by the appropriate faculty sponsor. May be repeated. Offered Cr/NCr only.

**ME 481P. Co-op Education (1).** Introduction to engineering practice by working in industry in an engineering-related job. 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 assignments 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/NCr only.

Courses for Graduate/Undergraduate Credit
The courses numbered 502 through 760 are not automatically applicable toward an advanced degree in engineering. They must be approved by the student’s adviser, 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.


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. Introductory laboratory courses illustrating fundamental requirements. Solution to various product and process problems. Laboratory (3). 2R, 3L.

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 for 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 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 attainment levels set by the U.S. Environmental Protection Agency. Emphasizes engineering systems for pollution control. Prerequisites: ME 598, AE 223, IME 255, or departmental consent.

ME 631. Heat Exchanger Design (3). Covers analytical models for forced convection through tubes and over surfaces, experimental correlations for the Nusselt number and pressure drop; design of single and multiple pass shell and tube heat exchangers; compact baffled, direct contact, plat, and fluidized bed heat exchangers, radiators, recuperators, and regenerators. Prerequisites: ME 521 and 522, or equivalent.

ME 633. 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 637. 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 639. 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 fluid mechanics, heat transfer, solid mechanics, and vibrations. Includes Galerkin’s and variational finite element models. Introduces commercial finite element computer tools such as ANSYS. Prerequisite: ME 439 or 522, or equivalent.

ME 641. Thermal Systems Design (3). Modeling, simulation, and optimization used as 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 650. 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 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: a) EE 282 and MATH 555; or b) EE 383.

ME 662. Senior Capstone Design (3). 1R; 6L.* 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 555, 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 682. Engineering Applications of Computational Fluid Dynamics and Heat Transfer (3). Reviews the basic laws of fluid flow and heat transfer including the Navier-Stokes equations. Applications include a CFD software emphasizing the finite volume method and introducing turbulence modeling. Additional topics include grid generation and benchmarking exercises as well as open-ended projects. Prerequisites: ME 325 (or AE 227) and ME 522 (or AE 424) with a minimum grade of C in each, or instructor’s 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 211 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 robotic science and technology. Fundamentals of manipulators, sensors, actuator, end-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 738. Advanced Machine Design (3). A broad coverage of principles of mechanical 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 541 or instructor’s consent.

ME 747. Microcomputer-Based Mechanical Systems (3). 2R, 3L. Microcomputer-based real-time control of mechanical systems. Familiarizes students with design and methodology 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. Prerequisite: 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 753. 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 755. Nonlinear Controls of Electro-Mechanical Systems (3). The standard first nonlinear controls course. Covers stability; feedback linearization (robotic, mechanical, electro-mechanical system applications); differentially-flat systems (with rotorcraft position-tracking applications); back-stepping control-design methods (electro-mechanical, robotic, and rotor-craft applications); MIMO systems; normal form; zero dynamics; and adaptive control of robotic systems. ECE 729, Linear State Space Controls, while not a prerequisite, is helpful.

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 761. Polymeric Composite Materials (3). Designed to provide students with an understanding and knowledge about the polymeric composite materials. The characteristics of various composite manufacturing processes are presented and their capabilities and limitations are highlighted. Materials and manufacturing process design and engineering for polymeric composites are discussed. Prerequisites: ME 250 and MATH 555 or instructor’s 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 769. Impact Dynamics (3). Classical methods are presented to analyze mechanical components and structures for impact response. Impact methods include stereomechanics, contact mechanics, impulse-momentum, stress-wave, energy method, and plastic impact. Finite element analysis (FEA) modeling of impact events are examined and applied to classical methods. Material properties evaluation for impact conditions, design techniques for impact and shock mitigation, and an introduction to crashworthiness are also presented. Course goals are to understand characteristics such as loading, stresses, deflections, contact forces and material response to impact events. Prerequisite: ME 439 or instructor’s 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. Offered Cr/NCr only. Prerequisites: graduate standing, departmental consent, and graduate GPA of 3.00 or above.

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

*Normally not permitted for use toward the graduate degree in mechanical engineering.

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.
The College of Fine Arts is responsible for instruction, scholarly inquiry, performance, teacher education (excepting 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 the ability to respond to changes and challenges within the world of the arts. The college strives to develop and use 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 requirements for entrance and graduation that accord with the associations' published criteria.

**Degrees and Certificates Offered**

**Undergraduate**
The College of Fine Arts offers four undergraduate degrees: Bachelor of Arts (BA), Bachelor of Fine Arts (BFA), Bachelor of Music (BM), and Bachelor of Music Education (BME). Graduation requirements for each degree are listed in the descriptions of the appropriate school programs.

**Graduate**
The Graduate School offers a program leading to the Master of Fine Arts (MFA) with emphases in ceramics, painting, printmaking, and sculpture; a Master of Music Education (MME) with emphases in elementary music, instrumental music, choral music, and music in special education; and a Master of Music (MM) with emphases in history-literature, performance, piano pedagogy, instrumental conducting, opera performance, and theory-composition.

For information concerning requirements for entrance and curricula, consult the *Wichita State University Graduate Catalog*.

**Certificates**
The College of Fine Arts offers an undergraduate certificate in decorative and ornamental painting and design.

**Special Academic Area Cooperative Education**
The College of Fine Arts participates in the university cooperative education internship program. The program is designed to provide relevant paid employment experiences that integrate with and complement the student's academic program. Degree credit is awarded. Students are placed in a variety of positions including education and business settings in theatre, music, and art disciplines. For further information, contact the fine arts coordinator in the cooperative education office.

**Policies**

**Admission**
All entering freshmen who declare a major within a discipline in the College of Fine Arts, or who enter as a general undecided student in a fine arts discipline, will be enrolled in and advised by the school that houses the discipline (art and design; music; performing arts—theatre and dance). All students must maintain a grade point average of 2.000 or above to remain in good standing (see Academic Probation and Dismissal Standards, page 34).

Transfer students must present an earned GPA of 2.000 or higher for all prior college work in order to be fully admitted into one of the schools within the College of Fine Arts. Transfer students with a GPA of at least 1.700 but less than 2.000 may petition for probationary admission.

**Probation and Dismissal**
Students are expected to make satisfactory progress in their studies. A student who fails to do so may be placed on probation at any time and ultimately dismissed from the university.

Students are required to maintain a cumulative and overall WSU grade point average of at least 2.000. Students enrolled in either the music education or art
education programs must meet specific curriculum and GPA requirements prior to acceptance into student teaching; call or consult the associate dean of students and certification in the College of Education, (316) 978-3303.

Students who do not achieve or maintain the required 2.00 grade point average will be placed (or continued) on probation at the conclusion of each semester in which their cumulative or overall WSU grade point average falls below 2.00 and they have attempted at least 6 hours at Wichita State University. Students on probation are limited to a maximum of 12 credit hours per semester while on probation. Students will be dismissed at the end of any semester on probation if they fail to earn a semester grade point average at or above the minimum required, and have a cumulative or overall WSU grade point average also below the minimum required. Students are not academically dismissed at the end of a semester unless they began that semester on academic probation.

Transfer students admitted on probation must complete at least 12 credit hours with a minimum grade point average of 2.00 on work at Wichita State before probation may be lifted.

Students who have been dismissed for poor scholarship may be readmitted by permission of the relevant school Curriculum and Policy Committee in the College of Fine Arts and by the university’s Committee on Admissions and Exceptions.

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 131

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 sciences 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
Mathematics and Natural Sciences .............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 mathematics and natural sciences

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 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 program requirements. Courses within the student’s major discipline do not count toward general education program requirements.

Fine Arts—General (FA)

Lower-Division Courses
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 art 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 481. Cooperative Education (1–8). 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.

Courses for Graduate/Undergraduate Credit
FA 590. Special Topics in the Fine Arts (1–4). For group instruction. May be repeated for credit. Involves interdisciplinary upper-division/graduate-level topics with the fine arts (music, art, dance, and theatre). Prerequisite: senior undergraduate or graduate standing or instructor’s consent.

FA 781. Cooperative Education (1–8). Field placement which integrates coursework with a planned and supervised professional experience designed to complement and enhance the student’s academic program. Individualized programs must be formulated with, and approved by, appropriate faculty sponsors and cooperative education coordinators. Note: a maximum of 4 S/U or Cr/NCr credits may be counted toward a graduate degree and must be taken in consultation with the graduate adviser for the approved graduate plan of study. May be repeated for credit. Offered S/U or Cr/NCr only. Prerequisite: satisfactory academic standing prior to the first job assignment.

School of Art and Design
finearts.wichita.edu/design
Barry Badgett, interim director
The School of Art and Design offers four program areas: art education, art history, graphic design, and studio art. These programs offer 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 and commitment to become a professional designer, educator, artist, or scholar. Many entering students have not yet identified the art discipline in which they wish to develop
their strengths. 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 studies curriculum develops technical abilities and visual literacy within a conceptual and historical framework. These fundamental skills provide the basis for understanding and creating art forms at a professional level in advanced coursework.

Art students have excellent classroom and laboratory facilities in the McKnight Art Center and renovated Henrion 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 the 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.

Attendance
The undergraduate art and design student is expected to attend all scheduled classes and examinations. At the discretion of the faculty member, the student may be failed in a course, or given a lowered grade, based on excessive absences. In high enrollment classes, a student who misses the first two class meetings may be asked to drop the course. In cases of extended absence for serious illness, or other unavoidable reasons the student should notify the director of the School of Art and Design.

Fees
As part of university fees, the School of Art and Design charges students on a per-course basis for materials, supplies, and services that must be provided for the class rather than purchased individually.

Transfer Students
Students seeking to transfer art and design credits from another institution to WSU must first be accepted by the university. Upon acceptance, students must submit a digital portfolio of 4-15 artworks to the School of Art & Design office, 302 McKnight Art Center, Campus Box 67, Wichita State University, 1845 Fairmount, Wichita, Kansas 67260-0067. (Mail submissions accepted; do not send or submit original works.) For complete information, please see: wichita.edu/adtransferguidelines.

Student Artwork
The School of Art and Design reserves the right to keep artwork submitted for course credit. In practice, this right is exercised sparingly, but in certain studio areas the selection of one piece by each graduating student contributes to an important instructional collection that is of great value to other students. The faculty also reserves the right to temporarily withhold artwork for exhibition. Students are encouraged to exhibit work in the school as a significant part of the educational experience. At the same time, the school and the university cannot insure student artwork for exhibition purposes or take responsibility for its loss or damage under any circumstances. At the end of each semester, students are required to remove all personal supplies and artwork from classrooms, laboratories, lockers, and studios.

Advising
The School of Art and Design requires faculty advising of all its students each semester prior to enrollment. Students are advised on the basis of the program (student progress check sheet) in effect on the date they are admitted into a particular degree program (BA or BFA) rather than the date they enter the university.

Graduation Audit
Students should have a graduation audit prior to the final two semesters before the student’s intended completion date. Appointments can be scheduled with an adviser in the School of Art and Design. Especially if students have transfer credits, they should keep careful track of their general education and degree requirements to avoid unexpected problems surfacing as they approach their expected date of graduation.

Special Needs
Students with special needs are requested to consult with their professor in his or her office during the first week of class. Students are required to provide appropriate documentation to the director of disability services before classroom services are provided. A special need may involve seating arrangements, note taking, tape recording, examinations, etc. For more information contact the Office of Disability Services at (316) 978-3309.

Graduation Requirements
Minor in Art and Design
All students, except art and design majors, may complete 18 credit hours of art and be awarded the minor in art and design. After completing an introductory sequence within the foundation studies curriculum (ARTF 102, 103, 136, and 145) the student selects a sequence of three 200 and 300 level courses in studio art or graphic design. Recommended plans of study are available in the school office, 302 McKnight East.

Minor in Art History
A minor in art history complements degree programs and certificates in anthropology, classical studies, history, medieval and renaissance studies, and women’s studies in the Fairmont College of Liberal Arts and Sciences. The requirement is 18 credit hours in art history, with 6 hours in lower-division courses (ARTH 121 and 122) and 12 hours in upper-division work selected in consultation with the student’s art history adviser (courses must include at least one at the 500 level).

Certificate in Decorative and Ornamental Painting and Design
The 18-credit hour certificate in decorative and ornamental painting and design includes foundation courses in color theory, drawing, and painting which lead to advanced and terminal project coursework in decorative and ornamental media. Students focus on the historical relevance, technical and stylistic influences, aesthetic value, and effective use of decorative and ornamental painting and design. Contemporary art, utilitarian art, faux painting, and historical restoration are studied. The certificate is recognized by the National Society of Tole and Decorative Painters, Inc.

Bachelor of Arts in Art
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. The degree offers the opportunity to complete a minor or second major in a discipline other than art and design, as well as the option of pursuing more than one area of emphasis within the art curriculum. After completing the foundation studies curriculum, each student gains experience in 2-D, 3-D and design areas, followed by advanced-level training in one or more areas of art and design. A plan of study that describes work beyond the introductory courses is
required. This is prepared with the assistance of faculty advisers as part of ARTF 202, Sophomore Review.

Requirements. A minimum total of 124 hours is required for the BA in art and includes 52 credit hours of art courses listed below. In addition to the university scholastic, residence, and general education requirements, candidates for the degree must also complete a minor in a discipline other than art and design or proficiency in a foreign language at a level equivalent to 5 hours beyond the 112 course.

Further description of the foreign language proficiency requirement can be found in this catalog under the graduation requirements for the Bachelor of Arts degree in the Fairmount College of Liberal Arts and Sciences, section VII. Foreign Languages (see page 150).

The requirements for minors are set by each department. In addition, the BA in art requires a minimum of 15 total hours in the minor. Students whose area of emphasis is graphic design are advised to complete a minor in entrepreneurship, marketing, business administration, management, graphic design communication, or communication. Students whose area of emphasis is within studio arts are advised to complete a minor in anthropology, English, film studies, history, modern and classical languages, philosophy, psychology, religion, sociology, or women’s studies. Completion of the certificate in Medieval and Renaissance studies also satisfies the requirement. Hours completed for a minor cannot be used to satisfy requirements for two or more minors. Hours completed for the minor may include coursework that satisfies general education requirements.

Areas of emphasis include ceramics, decorative and ornamental painting and design, graphic design, painting, photography, printmaking, and sculpture.

Art Distribution Requirements ...............9
2-D selection (from ARTS 250, 251, 252)
3-D selection (from ARTS 270, 272, or 282)
Design selection (from ARTG 200, 216, 230, 234)

Art and Design Emphasis Area ...............9
A sequence of three courses in one area of art and design and one course at the 300+ level

Minor in a discipline other than art and design or language proficiency .................15

Electives based on plan of study ...............15
Additional coursework in art or other disciplines that complement the student’s plan of study

Before enrolling in ARTF 202, Sophomore Review, the student must have completed or have in progress two introductory courses. They can choose one course in 2-D (painting, drawing, or printmaking), one course in 3-D (sculpture or ceramics), or one course in graphic design.

Note: 45+ upper-division hours are required for graduation.

Bachelor of Fine Arts in Art
The Bachelor of Fine Arts degree is the initial professional degree in art and design. Its primary emphasis is on the development of skills, concepts, and sensitivities essential to the professional artist or art educator.

The School of Art and Design offers the Bachelor of Fine Arts degree (BFA) in art with emphases in art education, ceramics, painting/drawing, printmaking, or sculpture. In addition to the university’s scholastic, residence, and general education requirements, candidates for the BFA must complete the foundation studies curriculum (19 hours), art history (9 hours), art distribution requirements (9 hours), introductory art (15 hours), art electives (9 hours), and the emphasis (24 hours). The specific requirements for the BFA with an emphasis 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 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 (9 hours), art distribution requirements (9 hours), introductory art (18 hours), art electives (6 hours), and the emphasis (24 hours). The specific requirements for the BFA in graphic design are described under the appropriate program sections of the Catalog. Model programs of study are available in the school office.

School of Art and Design Requirements
Foundation Studies (ARTF)
The following courses are required of all undergraduate art major students: either the foundation curriculum (19 hours), or the core curriculum (15 hours). The foundation 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.

Foundation Studies Curriculum ...............19
ARTF 102 Introduction to Art & Design
ARTF 103 Introduction to Art & Design: Lab
ARTF 136 & 137 Foundation Design I & II
ARTF 145 & 146 Foundation Drawing I & II
ARTF 189 Foundation 3-D Design
ARTF 202 Sophomore Review*

Before enrolling in ARTF 202, Sophomore Review, the student must have completed or have in progress two introductory courses. They can choose one course in 2-D (painting, drawing, or printmaking), one course in 3-D (sculpture or ceramics), or one course in graphic design.

Art Education (ARTE)
The art education area offers the Bachelor of Fine Arts in art degree with an emphasis in art education for students who want to prepare for a career in teaching the visual arts in grades prekindergarten through the 12th grade. The art teacher must master a variety of art techniques and media and also select an area of emphasis by choosing ceramics, painting, printmaking, sculpture, graphic design or art history. The four-semester sequence for field work involves an assignment for one hour per week during the first semester. This increases to all-day during the fourth semester.

The curriculum includes five transition points for all teacher candidates. The first point is admission to teacher education during the fourth or fifth semester. The fifth point is program completion and the conditional licensure recommendation. After art teacher candidates successfully complete the program, they are
recommended to the State Department of Education, Topeka, for a conditional art teaching license by the dean of the College of Education. After two years of successful teaching with a conditional license, the art teacher applies for the professional license.

Admission to teacher education requirements are identified in the College of Education section of this catalog. Please refer to it for detailed information. The following requirements must be satisfied for acceptance and to begin the core sequence of coursework in the curriculum and instruction department in the College of Education: 35 hours of basic skills and general education with a 2.750 GPA or above; which may include up to 10 hours of art foundation coursework. Also required is a C or better in the five basic skills courses, ENGL 101 and 102, or their equivalents, COMM 111 (public speaking), MATH 111 or higher (college algebra). These courses must be completed within a student's first 48 hours. Passing grades in STAT 370, or its equivalent, and PSY 111, or its equivalent.

Standardized Test Requirement. A prospective teacher candidate must meet only one of the following four standardized test requirements. The basic skills test used to fulfill his or her admission requirements must have been taken within 10 years from the date of his or her application to the teacher education program. The teacher candidate selects from one of the following: PSAT, ACT, SAT and the CBASE, (registration Web site is registerblast.com/wsu). For additional information:

arc.missouri.edu/collegebase. Minimum scores required on these national tests are listed in the College of Education section. Application packets are available at wichita.edu/education/ess and the education support services office, 107 Corbin.

Embedded assessments in coursework in the major during the last four semesters meet the standards for preparing the art teacher which reflect national standards. The seven standards are:

1. The teacher of art demonstrates a strong scholarly foundation in art education and has a clear concept of how art links students to the broad experiences of life.
2. The teacher of art demonstrates knowledge, competency and teaching ability in the content of art, including aesthetics, art history, art criticism, and studio performance.
3. The teacher of art has the ability to create an environment where individuals, art content and inquiry are held in high regard, and where students can actively learn and create.
4. The teacher of art selects and adapts a variety of appropriate resources, materials and technologies in order to design a curriculum which enables students to learn, make, and respond to art.
5. The teacher of art demonstrates knowledge of collaborative and promotional strategies for working with colleagues, families, and community groups to achieve common goals for enriching the art program, enhancing students' learning, and improving schools.
6. The teacher of art understands the purposes, principles, and design of assessments, as well as the importance of regular monitoring, analysis, and evaluation for assessing student and program improvement.
7. The teacher of art demonstrates knowledge of professional art organizations, continues professional development, and shows responsibility to the field of art.

Bachelor of Fine Arts in Art, Art Education Emphasis

Competence in basic studio skills is emphasized in the Bachelor of Fine Arts in art—art education emphasis. 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 directed 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 BFA must complete the foundation studies curriculum (19 hours), art history (12 hours), art specialization (9 hours), art education emphasis (24 hours), and professional education courses (16 hours). Courses within the art education curriculum fulfill both the university general education requirements for graduation and preparation for Kansas licensure for teaching art in the elementary and secondary levels.

Area .......................... Hrs.
General Education ........................ 36
Basic Skills (includes MATH 111 or 112) .......................... .12
Fine Arts and Humanities .......................... .6
Plus an additional 6 hrs. in art history introductory and further study courses
Social and Behavioral Sciences .......................... .9
(includes PSY 111)
Natural Sciences and Mathematics .......................... .9
(includes STAT 370)

Professional Education Sequence .......................... 16
CI 271 Intro to the Profession
CI 272 Intro to the Profession: Field Exp.
CI 311 Intro to Diversity: Field Exp.
CI 320 Intro to Diversity: Exceptionalities
CI 321 Intro to Diversity: Cultural Issues
CI 427 Philosophy History and Ethics of Education
CESP 334 Intro to Human Dev
CESP 433 Intro to Learning/Evaluation

Art Foundation Curriculum .......................... 19
ARTF 102 Introduction to Art and Design
ARTF 103 Intro to Art and Design: Lab
ARTF 136 & 137 Foundation Design I & II
ARTF 145 & 146 Foundation Drawing I & II
ARTF 189 Foundation 3-D Design
ARTF 202* Sophomore Review

Art History .......................... 12
ARTH 121 & 122 Survey of Art History I & II
ARTH 300-level, 1 course
ARTH 347 Art Since 1945

Art Education Program Studies .......................... 24
ARTG 232 Digital Imaging
ARTS 250 Introductory Oil Painting or
ARTS 251 Intro Watercolor Painting or
ARTS 252 Intro Acrylic Painting or
ARTS 270 Basic Ceramics Studio or
ARTS 272 Handbuilding w/Clay
ARTE 302 Jewelry Design/Const
ARTE 303 Stimulating Creative Behav.
ARTE 313 Fiber Exploration
ARTE 514 Aesthetic Inquiry
ARTE 515 Developing Visual Materials

Art Specialization .......................... 9
Three courses from one area not listed above:
ceramics, painting/drawing, printmaking, sculpture, graphic design, photography, or
art history

Art Education Emphasis .......................... 18
ARTE 310 Elementary Art Ed.
ARTE 410 Middle Level Art Ed.
ARTE 414 Secondary Art Ed.
ARTE 459 Student Teaching in the
Elementary School: Art
ARTE 462 Student Teaching in the Secondary
School: Art
ARTE 517 Student Teaching Seminar in Art

Before enrolling in ARTF 202, Sophomore Review, the student must have completed or have in progress two introductory courses. They can choose one course in 2-D, one course in 3-D, or one course in graphic design.

Student Teaching
The student teaching year involves two semesters. Admission into the second semester of student teaching requires
senior standing (90 hours or 200 credit points), a minimum grade point average of 2.500 in art courses, and a 2.500 overall grade point average. Acceptance into the second semester of student teaching requires passing the second transition point, which includes a selection of embedded assessments identified in the standards for art teacher preparation, required coursework in curriculum and instruction, art and design and the art education area, satisfactory physical examination and recommendation by the art education faculty following a formal interview. Students must apply by mid-term of the fall semester prior to the student teaching year. Placement in the middle school will be made midway during the spring term.

A 12-week prestudent teaching experience occurs in the fall term in a middle school for one class period every day which is part of the course requirements of ARTE 410. The second semester is divided with two experiences, a student teaching experience for eight weeks in a high school immediately followed by eight weeks in an elementary school. These three assignments with experienced and successful art teachers are made in consultation with the art teacher candidate. Policies for this second experience are identified in the Student Teaching Handbook, distributed by the curriculum and instruction department for cooperating teachers, the art teacher candidates and university supervisors.

During the student teaching year, art teacher candidates apply for teacher licensure in Kansas. They are required to complete the Principles of Learning and Teaching (PLT) examination and the Praxis content examination established by the Kansas State Department of Education in order to qualify for a conditional license. A fingerprint test administered by the police department is required. Candidates must be free of a felony conviction. A grade of B or better in student teaching is necessary to receive a recommendation for a teaching license.

It is possible to graduate with a degree but fail to meet requirements necessary for licensure recommendation. Art teacher candidates assume responsibility for knowing and fully understanding their program assessment plan and transition point requirements which must be met successfully prior to licensure recommendation.

**Graphic Design—Visual Communication Art (ARTG)**
The study of graphic design develops the ability to solve communication problems within a cultural, aesthetic, technical, ethical, and economic context. Designers create visual messages that serve many needs including advertising, packaging, publishing, identity and branding, web sites, and television graphics. These solutions require creativity and lateral thinking, as well as the technical, verbal, and written skills to solve specific client problems in their communications.

Graphic design has its roots in a variety of disciplines, including sociology, linguistics, art and design history, and technology. The field has traditionally been linked to commerce and the ability of merchants and institutions to communicate with specific audiences. It is also related to philosophical, literary, architectural, and artistic movements.

Throughout their course of study, graphic design majors assemble a professional portfolio of work to present to potential employers. Career options include advertising agencies, art studios, corporate art departments, and freelance work.

**Bachelor of Fine Arts in Graphic Design**
The design area offers a Bachelor of Fine Arts (BFA) in graphic design degree as the recognized professional education for entry into the field. The foundation studies program and the preparatory coursework in the graphic design program enable design majors to meet criteria for application into the degree after the sophomore level review. A limited number of students are accepted into the program based on portfolio review during ARTF 202, Sophomore Review. Students admitted into the program are required to participate in the junior portfolio review during the second semester of their junior year and enroll in ARTG 434, 435, and 453 during their final two semesters. The graphic design curriculum provides student-selected courses in typography, illustration, photography, book design, advertising, computer graphics, design, and drawing.

**Requirements.** A minimum total of 127 hours is required for the BFA in graphic design and includes 85 semester hours of art courses listed below.

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<th>Area</th>
<th>Hrs.</th>
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<td>Foundation Curriculum</td>
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<td>ARTF 102 Introduction to Art and Design</td>
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**ARTF 103 Intro. to Art and Design: Lab**
ARTF 136 & 137 Foundation Design I & II
ARTF 145 & 146 Foundation Drawing I & II
ARTF 189 Foundation 3-D Design
ARTF 202* Sophomore Review

**Art History**

*(15 total art history hours are required. ARTH 122 and 300+ course satisfy general education requirements.)*

**ARTH 121 & 122 Survey of Art History I & II**
**ARTH 300-level, 2 courses**
**ARTH 500-level, 1 course**

**Sophomore Art Distribution Requirements**

| 2-D selection (from ARTS 250, 251, 252, or 340) |
| 3-D selection (from ARTS 270, 272, 282, or 283) |

**Design selection (ARTG 234)**

BFA Graphic Design Program Studies ...... 18
ARTG 216 Typography I
ARTG 235 Graphic Design Studio II
ARTG 238 Graphic Materials and Processes

**Graphic Design Emphasis**

| 24 |

**Note: 45+ upper-division hours are required for graduation.**

**Courses eligible for graphic design electives:**

ARTG 232 Digital Imaging
ARTG 339 Package Design
ARTG 350 Graphic Design Workshop
ARTG 431 Photo Media Topics
ARTG 432 Digital Media Topics
ARTG 437 Drawing for Visual Comm. I
ARTG 481 Cooperative Education
ARTG 493 Book Design and Production
ARTG 530 Seminar in Graphic Design
ARTS 251 Introductory Watercolor Painting
ARTS 252 Introductory Acrylic Painting
ARTS 261 Intro Printmaking: Materials & Methods

**ARTS 340 Life Drawing Studio**
**ARTS 345 Intermediate Drawing**
**ARTS 362 Intermediate Intaglio Print II**
**ARTS 545 Advanced Drawing Studio**
**ARTS 549 Independent Study in Drawing**
**ARTS 560 Advanced Intaglio**
**ARTS 561 Advanced Lithography**

**COMM 324**
Introduction to Integrated Marketing Communications

**COMM 626**
Integrated Marketing Communications Campaigns

**ENTR 160**
Intro to Entrepreneurship
**FA 301**
Intro to Entrepreneurship in the Arts
**MKT 300**
Marketing
reading of primary source materials. The language to support research through the and proficiency in at least one foreign and art history (as described below) with a minimum grade point average of 2.500, and general education requirements. 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 the professional pursuit of art history, museum studies, conservation, criticism, and art education.

Note: See Bachelor of Arts in art for art history studies.

Bachelor of Arts in Art History (Currently Suspended)

Bachelor of Arts in Art, Art History Emphasis
The Bachelor of Arts (BA) degree in art history provides a thorough grounding in the liberal arts and prepares the student for the professional pursuit of graduate studies in art history, museum studies, conservation, and art criticism. The program provides knowledge of the monuments and artists of major art periods of the past, a broad understanding of modern and contemporary art, and an exposure to the art of non-Western cultures. This broad knowledge is augmented by study in greater depth and precision of several cultures and periods in the history of art. Active research and the writing of analytical and critical essays is a component of courses at all levels. Students also gain a functional knowledge of the creative process through foundation art courses.

Requirements. The degree in art history requires a minimum of 124 credit hours. In addition to the university scholastic, residence and general education requirements, candidates for the degree must complete a minimum of 37 hours in art and art history (as described below) with a minimum grade point average of 2.500, and 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 other languages can be substituted with the approval of art history faculty. Students gain formal admission to the degree program through the preparation of a plan of study in ART 202, Sophomore Review, a course that provides structured advising about career options and degree requirements. Art history majors are also advised to complete a minor or second major in a related area of the humanities or social sciences.

Area: .......................... Hrs.
Foundation Studies Curriculum ............................. 10
ART 102 Introduction to Art & Design
ART 103 Introduction to Art & Design: Lab
ART 136 Foundation I
ART 145 Foundation Drawing I
ART 189 Foundation 3-D Design
ART 202 Sophomore Review

Art History: .......................... 27
ARTH 121 Survey of Art History I
ARTH 122 Survey of Art History II
Four courses at the 300-level
ARTH 426 Seminar: Techniques of Art History
(An upper-division course in the theory of art can be substituted for this requirement.)
Two courses at the 500-level

Electives: .......................... 45
Electives include the language requirement and courses selected from any university program, including art and design, that fulfill the plan of study.

Note: 45+ upper-division hours are required for graduation.

Minor in Art History
A minor in art history complements degree programs and certificates in anthropology, classical studies, history, medieval and renaissance studies, and women’s studies in the Fairmont College of Liberal Arts and Sciences. The requirement is 18 credit hours in art history, with 6 hours in lower-division courses (ARTH 121 and 122) and 12 hours in upper-division work selected in consultation with the student’s art history adviser (courses must include at least one at the 500 level).

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 required to complete a terminal project in decorative and ornamental painting and design prior to completion of the certificate program.

Requirements: 18 credit hours are required for the certificate:

Certificate curriculum .................................................. 18
ART 137 Foundation Design II
ART 145 Foundation Drawing I
ARTS 250 Introductory Oil Painting or ARTS 251, Introductory Watercolor Painting or ARTS 252, Introductory Acrylic Painting
ARTS 352 Decorative and Ornamental Painting and Design
ARTS 552 Advanced Decorative and Ornamental Painting and Design
ARTS 559 Terminal Project: Decorative and Ornamental Painting and Design

Bachelor of Fine Arts in Art—Studio Art Emphasis
The Bachelor of Fine Arts (BFA) 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 preparing students for professional careers in art. In this intense program, the student becomes familiar with every aspect, technique, and direction in their chosen BFA emphasis. The studio art major is then expected to achieve the highest possible level of technical skill in that emphasis and its expressive possibilities.

Requirements
A minimum total of 126 credit hours are required for a BFA in studio art degree, including 90 credits as follows. Note 45+ upper-division hours are required for graduation. All students pursuing the BFA studio art degree must successfully pass
ARTF 202, Sophomore Review, and complete a portfolio application to intended emphasis area.

Degree Requirements

Foundation Curriculum .......................... 19 hrs.
ARTF 102 Intro to Art and Design
ARTF 103 Intro to Art and Design Lab
ARTF 136 Foundation Design I
ARTF 137 Foundation Design II
ARTF 145 Foundation Drawing I
ARTF 146 Foundation Drawing II
ARTF 189 Foundation 3-D Design
ARTF 202* Sophomore Review

Art History ........................................ 9 hrs.
(ARTH 122 and a ARTH 300-level course satisfy two fine arts general education requirements. It is recommended that all art history courses are taken in sequence.)

General Education Requirements

ARTH 122 Survey of Art History II
ARTH 300-level, one course

Art Requirements

ARTH 121 Survey of Art History I
ARTH 347 Art Since 1945
ARTH 500-level, one course

Introductory Studio Art ......................... 18 hrs.
ARTS 200-level painting course
ARTS 200-level printmaking course
ARTS 200-level ceramics course
ARTS 200-level sculpture course
ARTS 340 Life Drawing
ARTG 212, 234, or 238 graphic design

Studio Art Emphasis ............................. 29 hrs.
(All courses are in the emphasis area except Professional Practices, Intermediate & Advanced Drawing)
ARTS 200-level introductory course, 3 hrs.
ARTS 300+ level, three courses, 9 hrs.
ARTS 345 Intermediate Drawing, 3 hrs.
ARTS 545 Advanced Drawing, 3 hrs.
ARTS 495 Professional Practices, 3 hrs.
ARTS 500-level, 4 hrs.
ARTS 500-level BFA Senior Project, 4 hrs.

Art Electives ................................. 9 hrs.
Before enrolling in ARTF 102, Sophomore Review, the student must have completed or have in progress two introductory courses. They can choose one course in 2-D (painting, drawing, or printmaking), one course in 3-D (sculpture of ceramics), or one course in graphic design.

Courses should complement the introductory art and emphasis area courses. When choosing electives, students should take into consideration that they need 45+ upper division credit hours to graduate.

BFA in Art—Ceramics Emphasis

The Bachelor of Fine Arts (BFA) in art with an emphasis in ceramics offers the basic techniques of clay forming (hand building, casting, and throwing), the use of slips and glazes, and firing processes such as stoneware, low-fire, and raku, with an emphasis on experimentation with the medium to investigate individual interests.

BFA in Art—Painting/Drawing Emphasis

The Bachelor of Fine Arts (BFA) in art with an emphasis 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 media, as well as an understanding of the historical and social context in which painting is encountered.

BFA in Art—Printmaking Emphasis

The Bachelor of Fine Arts (BFA) in art with an emphasis in printmaking offers a broad range of studio experiences in two primary printmaking disciplines, intaglio and lithography. Supplementing these areas are relief, screen printing, collage, and papermaking. The program provides a wide exposure to traditional and contemporary techniques.

BFA in Art—Sculpture Emphasis

The Bachelor of Fine Arts in art with an emphasis in sculpture offers a varied and rich learning experience in a broadly defined interpretation of three-dimensional media. The sculpture studios in Henrion Gym, where modeling, fabricating, carving, casting, non-traditional and contemporary techniques take place, continually expose students to diverse sculpture-making processes. The focus of the sculpture emphasis is to provide students with instruction in technical and creative problem solving to promote experimentation and technical proficiency in developing a personal artistic vision relevant to current art practice.

Art and Design Courses

Foundation Courses

Lower-Division Courses

ARTF 102. Introduction to Art and Design (2). Introduces the sub-disciplines of art, fundamental concepts in visual art, and resources available in the university and community. Employs lectures and experiential 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. Corequisites: ARTF 136 and 145.

ARTF 103. Introduction to Art and Design: Laboratory (1). Taught in conjunction with ARTF 102. Corequisites: ARTF 102, 136, and 145.

ARTF 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.

ARTF 137. Foundation Design II (3). A continuation of ARTF 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: ARTF 136.

ARTF 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.

ARTF 146. Foundation Drawing II (3). Reinforcement and elaboration of the concepts studied in ARTF 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: ARTF 145.

ARTF 189. Foundation 3-D Design (3). Lectures, research, and studio methods on the evolutionary role of three-dimensional design in contemporary society using a variety of combination of materials, techniques, forms, and concepts. Also emphasizes learning to handle equipment and tools properly.

ARTF 202. Sophomore Review (1). Designed to assist students in preparing a plan of study for their junior and senior years in one of the three undergraduate degrees, 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, 136, 137, 145, 146, and 189), completion of the general education basic skills requirements, and the completion of or concurrent enrollment in ARTH 121, and 122.

Art Education (ARTE) Courses

Lower-Division Courses

ARTE 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.

ARTE 150. Art Workshop (1-3). Repeatable for credit. Area covered is determined at the time course is offered.

ARTE 281. Cooperative Education (1-8). Allows students to participate in the cooperative education program. Offered Cr/NCr only.
Upper-Division Courses

ARTE 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.

ARTE 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.

ARTE 310. ISAM: Elementary Art Education and Literacy (3). An introduction to the practices of art educators for the young student, PreK–6, including goals, both philosophical and historical, emphasizing the content of the visual arts, objectives/evaluation strategies in planning lessons. Principles used in effective instruction that integrate the visual arts with other subjects are incorporated with ways to develop skills in thinking, comprehension, reading, writing and vocabulary, both visual and verbal. Students will further understand instruction, assessment, and management (ISAM) in the context of teaching the visual arts and receive training to use the six-trait Analytical Writing Guide for assessing writing, which is the method used to score the Kansas State Writing Assessment. Prerequisite: ARTE 310, or instructor’s consent.

ARTE 410. ISAM: Middle Level Art Education (3). The study of the philosophy, psychology, and artistic development of the middle school student, emphasizing content, objectives, methods and evaluation of this level. Principles used in effective instruction that integrate the visual arts with other subjects are incorporated with ways to develop skills in thinking, comprehension, reading, writing and vocabulary, both visual and verbal. Students further understand instruction, assessment, and management in the context of teaching the visual arts. Teacher candidates attend class on campus and participate in a 12-week field experience in the middle school art classroom in order to apply knowledge to planning and implementing a 10-day showcase unit of study. They should allow 90 minutes daily for this experience. Successful completion of this course precludes enrollment in student teaching courses ARTE 459, 462, 517. Prerequisites: ARTE 310, 414.

ARTE 413. Independent Study (1–3). Directed independent study in art education not normally covered in other coursework. Prerequisite: instructor’s consent.

ARTE 414. ISAM: Secondary Art Education (3). An introduction to the practices of art educators for students enrolled in both middle and high schools. Philosophical and historical goals for teaching art in the secondary level are included as is the content of the visual arts, objectives in planning lessons, methods and evaluation strategies. Principles used in effective instruction that integrate the visual arts with other subjects are incorporated with ways to develop skills in thinking, reading, comprehension, writing and vocabulary, both visual and verbal. The students will further understand instruction, assessment, and management (ISAM) in the context of teaching the visual arts and practice using the six-trait Analytical Writing Guide for assessing writing, which is the method used to score the Kansas State Writing Assessment. Prerequisite: ARTE 310, or instructor’s consent.

ARTE 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: ARTE 310 or equivalent.


ARTE 481. Cooperative Education (1–8). Allows students to participate in the cooperative education program. Offered Cr/NCr only.

Courses for Graduate/Undergraduate Credit

ARTE 510. Stimulating Creative Behavior (3). 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.

ARTE 514. Aesthetic Inquiry (3). Focuses on contemporary trends in aesthetics relative to the visual arts. Students write critical observations and interpretations in response to artwork. Prerequisite: upper-division art major.

ARTE 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: ARTE 310 or equivalent.

ARTE 517. Student Teaching Seminar in Art (1). Analyzes problems encountered in the art classroom during student teaching. Requires concurrent enrollment in student teaching courses. Prerequisites: ARTE 410, CI 328, CESP 433, 2.500 GPA overall. Corequisites: ARTE 462 and/or ARTE 459 and program approval for student teaching.

ARTE 550. Art Workshop (1–3). Repeatable for credit. Area covered is determined at the time the course is offered.

ARTE 702. Metal Processes for Jewelry Construction (3). Emphasizes fabrication techniques, design analysis, and function of jewelry designed and produced by students andacknowledged craftsmen. Repeatable once for credit. Prerequisite: ARTE 302 or instructor’s consent.

ARTE 710. 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 those strategies. Student identifies an area for individual investigation. Repeatable once for credit.

ARTE 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 adviser’s consent.

ARTE 712. Development of Art Understanding in the Educational Program (3). Includes readings, observation, and evaluative techniques in the development of concepts and materials for art understanding. Repeatable once for credit. Prerequisite: instructor’s consent.

ARTE 713. Fiber and Fabric Processes (2–3). 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.

ARTE 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.

ARTE 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.

ARTE 719. Electronic Imaging (1–3). Emphasizes Macintosh and other computer processes and their application to art and art education. Students generate computer images using digitizing, 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.

ARTE 750. Art Workshop (1–3). Repeatable for credit. Area to be covered is determined at the time the course is offered.
Please see the Graduate Catalog for courses numbered 800 and above.

Graphic Design (ARTG) Courses

Lower-Division Courses

ARTG 200. Introduction to Computer Graphics (3). Introduces computer graphic programs in the Macintosh computer environment. Prerequisites: ARTF 136 and 145 or instructor's consent.

ARTG 216. Typography 1 (3). Introduces typography, including history, comping skills, stylistic considerations, grid structures, working with copy, and visual and informational hierarchal arrangement upon a single page. Prerequisites: completion of the foundation program (ARTF 102, 103, 136, 137, 145, 146 and 189).

ARTG 230. Black and White Photography Studio I (3). Introduction to the fundamentals of photography, including basic camera operations, film and paper characteristics, darkroom techniques, and a historical overview of the development of photography. For majors only. Prerequisite: ARTF 137.

ARTG 231. Color Photography Studio I (3). Introduction to the fundamentals of color photography, including basic camera operations, color theory, film and paper characteristics, darkroom techniques, and a historical overview of the development of color photography. For majors only.

ARTG 232. Digital Imaging (3). Introduction to the fundamentals of digital imaging, including digital cameras, scanning film and images, digital manipulation, and archival ink jet printing. Examines photography as it applies to commercial photography venues. For majors only.

ARTG 234. Graphic Design Studio I (3). Studies graphic design theory, philosophy, history, and approaches to problem solving in visual communication. Prerequisites: completion of the foundation program (ARTF 102, 103, 136, 137, 145, 146 and 189).

ARTG 235. Graphic Design Studio II (3). Beginning studies in graphic design concept development, mark/symbol making, and basic layout principles. Continuing studies in history, theory and problem solving. Prerequisite: ARTG 234.

ARTG 238. Graphic Materials and Processes (3). Explores the possibilities of paper manipulation including cut-paper embossment, box building, pop-up structures and assorted binding and presentation techniques. Prerequisite: completion of the foundation program (ARTF 102, 103, 136, 137, 145, 146 and 189).

ARTG 281. Cooperative Education (1–8). Allows students to participate in the cooperative education program. Graded Cr/NCr only.

Upper-Division Courses

ARTG 301. Typography II (3). Studies type as form, symbol, and communication with exploration of letterforms and their applications using traditional and computer skills and media. Prerequisite: acceptance to the graphic design BFA program.

ARTG 330. Black and White Photography Studio II (3). Examines the visual language of photography through technique, theory, and criticism. Continues to develop a broader understanding of the process of photography, approach to genre, and the application to various working venues. Learn the fundamentals of studio lighting, various medium and large format cameras and films, and print large-scale images. Prerequisites: ARTF 137, ARTG 230.

ARTG 331. Color Photography Studio II (3). Examines the visual language of color photography through technique, theory, and criticism. Continues to develop a broader understanding of the process of color photography on location and in the studio through the use of various format cameras and films, and digital technology. Print large-scale images. Examines various photographic genres. Prerequisites: ARTG 200, 231, 330 and ARTF 137.

ARTG 334. Graphic Design Studio III (3). Building on the principles covered in ARTG 234 and 235. An emphasis is placed on using original imagery in each project. Prerequisite: ARTG 235 and acceptance to the graphic design BFA program.

ARTG 335. Graphic Design Studio IV (3). Emphasis on sequential design and the investigation of color in graphic design problem solving. Prerequisite: ARTG 316, 334. Repeatable for credit.

ARTG 337. Drawing for Visual Communication (3). Applied drawing for graphic design. Prerequisite: acceptance to the graphic design BFA program.

ARTG 339. Package Design (3). Box construction and surface treatment in product design. Prerequisites: ARTG 238, 334.

ARTG 350. Graphic Design Workshop (1–3). Repeatable for credit. Area covered is determined at the time the course is offered.

ARTG 353. Junior Portfolio Review (1). A forum for juniors to analyze and develop their portfolio and research internships. Class uses research and reading, consultation and reports. Repeatable for credit.

ARTG 355. Senior Portfolio Review (1). A forum for seniors to analyze and develop their portfolio and research internships. Class uses research and reading. Prerequisite: ARTG 316, 334.

ARTG 431. Photo Media Topics (3). Explores a variety of topics concerning contemporary photography: A formal and conceptual expression in the medium of photography using advanced photography techniques, alternative processes, studio lighting, medium and large format equipment. Content based on the specific topic of the semester. Prerequisites: ARTG 230 or 231, 330 or 331.

ARTG 432. Digital Media Topics (3). Explores the realm of concept-based photography, and explores the approach to photography as applied to commercial venues. Examines the sequential image using digital technology and time-based media through digital editing and production. Content based on the specific topic of the semester. Prerequisite: ARTG 232.

ARTG 434. Graphic Design Studio V (3). Publication design, identity and sequence. Prerequisite: ARTG 335, 353.


ARTG 437. Drawing for Visual Communication (3). Concentration in editorial and narrative illustration emphasizing visualization and creative problem solving while exploring a variety of color media and techniques. Prerequisites: ARTG 337 or instructor's consent.

ARTG 445. 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.

ARTG 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.


ARTG 490. Graphic Design Applications (3). Focuses on emerging technologies for various media. Repeatable for credit. Prerequisites: ARTG 335, 353.

ARTG 493. Book Design and Production (3). A laboratory course encompassing all facets of the book including design, type composition, proofreading, illustration, manufacturing, binding materials (cloths, paper, and boards), distribution, copyright, royalties, and remaindering. Students are responsible for the development and publication of a limited edition book. Prerequisites: ARTG 334, 337, or instructor's consent.

Courses for Graduate/Undergraduate Credit

ARTG 508. Advanced Photography Studio (3). Advanced study of contemporary photography. Examines the historical context of photography and presents photographic work for theoretical discussion and critique. Students use medium and large format photography equipment, traditional and digital technology to create cohesive formal and conceptual photography projects. Prerequisites: ARTG 431 or 452.

ARTG 530. Seminar in Graphic Design (3). Supervised study and research. Requires weekly consultation and reports. Repeatable for credit. Prerequisite: departmental consent.

Art History (ARTH) Courses

Lower-Division Courses

>ARTH 121. Survey of Art History I (3). General education introductory course. A historical survey of art from Paleolithic cave paintings to the end of the Romanesque era, ca. 1200 AD.

>ARTH 122. Survey of Art History II (3). General education introductory course. A historical survey of art from the Gothic era to the present.
ARTH 281. Cooperative Education (1–8). Allows students to participate in the cooperative education program. Offered Cr/NC only.

Upper-Division Courses

> ARTH 318. 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: ARTH 121 or instructor's consent.

> ARTH 319. 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 in the third century after Christ. Emphasizes understanding Roman art in its context and the methods and sources used in its analysis. Prerequisite: ARTH 121 or instructor's consent.

> ARTH 320. Early Christian Art and Architecture (3). Begins with the evidence from the first through third centuries but focuses on the fourth through sixth centuries: from Constantine to Justinian. Emphasizes understanding early Christian art in its Roman and pagan context and the methods and sources used in its analysis. Prerequisite: ARTH 121 or instructor's consent.

> ARTH 323. Medieval Art (3). General education further study course. A study of Medieval art and architecture in Europe beginning in the eighth century after Christ, and focusing on Romanesque and Gothic architecture and sculpture. Prerequisite: ARTH 122 or instructor's consent.

> ARTH 328. Italian Renaissance (3). General education further study course. Painting, sculpture, and architecture in Italy from the 13th through 16th centuries. Prerequisite: ARTH 122 or instructor's consent.

> ARTH 329. Northern Renaissance (3). Painting, sculpture, and printmaking in Northern Europe from the 14th through 16th centuries. Prerequisite: ARTH 122 or instructor's consent.

> ARTH 342. Baroque Art (3). Art and architecture in Europe from approximately 1600 to 1750. Surveys the artistic achievements in Italy, Spain, Flanders, and Holland including the works of artists such as Bernini, Borromini, Caravaggio, Rubens, Rembrandt, and Vermeer. Prerequisite: ARTH 122 or instructor's consent.

> ARTH 343. 18th and 19th Century Art (3). General education further study course. A study of 18th and 19th century art in Europe and America including Neoclassicism, Romanticism, Realism and Impressionism, with consideration of global artistic perspectives and contexts. Prerequisite: ARTH 122 or instructor's consent.

> ARTH 346. 20th Century Art Before 1945 (3). General education further study course. A history of American and European art from Post-Impressionism to Surrealism. Prerequisite: ARTH 122 or instructor's consent.

> ARTH 347. Art Since 1945 (3). General education further study course. Art from 1945 to the present, stressing the relationship between contemporary trends in criticism, theory, and artistic practice. Prerequisite: ARTH 122 or instructor's consent.

> ARTH 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.

> ARTH 352. History of Decorative Arts (3). An exploration of the historical influences on the development of the decorative arts from Ancient Egypt through the Modern Period. Prerequisite: ARTH 122 or instructor's consent.

> ARTH 378. Theories of Art History and Culture (3). An examination of the theories and analytical positions used to interrogate art forms, histories, concepts, practices and ideologies. Prerequisite: ARTH 122 or instructor's consent.

> ARTH 391. Topics in Art History (3). Lecture course with selected readings on various topics in art history. Course content varies but individual areas are not repeatable for credit. Prerequisites: ARTH 121, 122.

ARTh 426. Seminar: Techniques of Art History (3). A culminating study for senior art history majors which considers the history of the discipline, its research methods, and theory. Requires extensive readings and reports. Prerequisite: instructor's consent.


Courses for Graduate/Undergraduate Credit

> ARTH 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.

> ARTH 528. Museum Techniques I (3). Primarily for the graduate student interested in museum work. Includes specialized research related to the administrative responsibilities of a museum: collection, exhibition, recording, preservation, and financial activities.

> ARTH 532. Independent Study in Art History (1–3). Work in a specialized area of the study of art history. Directed readings and projects. Prerequisite: instructor's consent.

> ARTH 533. Seminar: Topics in Modern Art (1–3). Selected readings and problems in art of the modern era. Course content varies but individual areas are not repeatable for credit.

> ARTH 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.

Studio Art (ARTS) Courses

General

Upper-Division Courses

ARTS 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. Not repeatable for credit. Prerequisite: junior standing in a studio art major or instructor's consent.

Courses for Graduate/Undergraduate Credit

ARTS 790. Graduate Teaching Seminar (1). Discussion seminar for graduate students already teaching or intending to teach. Meets six to eight times per semester. Class format is discussion. Students participate in discussions, read articles and essays, create teaching philosophy, create academic portfolio. Not repeatable for credit. Graded S/U only.

Ceramics

Lower-Division Courses

ARTS 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.

ARTS 272. Hand Building with Clay (3). Uses various hand-building techniques in the context of the vessels, the figure, and architecture or wall relief. 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.

ARTS 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: ARTF 189 and ARTS 270, or departmental consent for non-majors.

Upper-Division Courses

ARTS 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. Prerequisite: ARTS 270.


ARTS 372. Intermediate Hand Building (3). Hand building/forming methods and drying-firing procedures relate to the various hand-building techniques. Activities include lectures, demonstrations,

ARTS 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 ARTS 370.

Courses for Graduate/Undergraduate Credit

ARTS 570. Advanced Ceramics (4). Builds on ARTS 373. Investigates advanced studies of clay bodies, glazes, and firing methods. Preparation for ARTS 577. Repeatable for credit. Prerequisites: ARTS 373 and/or instructor’s consent.


ARTS 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: ARTS 374.

ARTS 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: ARTS 275 and 370.

ARTS 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: ARTS 575.

ARTS 577. Ceramics Senior Project (4). Culminating course in BFA studio art/ceramics emphasis. Continued emphasis on individual development. Written senior project proposal and review, critiques with art and design faculty outside of ceramics emphasis, senior project exhibition, written statement, and review required. Prerequisites: ARTS 570 or 572, completion of/concurrent enrollment in ARTS 495, and/or instructor’s consent.

ARTS 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: ARTS 578.

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

Drawing

Lower-Division Courses

ARTS 105. Beginning Drawing for Non-Majors (3). A beginning drawing course for students not enrolled in art and design degree programs: presents elements of design, skills, media, and techniques of observational drawing. Students graded on individual progress. Lecture/Studio/Lab. Fee.

Upper-Division Courses

ARTS 340. Life Drawing Studio (3). Lab fee. Emphasizes individual development, figurative observation, and interpretation. Repeatable for credit. Prerequisite: completion of foundation program.

ARTS 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

ARTS 545. 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: ARTS 340 and 345.

ARTS 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: ARTS 340, 345, and instructor’s consent.

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

Painting

Lower-Division Courses

ARTS 250. Introductory Oil Painting (3). Introduces oil and alkyd painting emphasizing studio practices, fundamental principles, and techniques.

ARTS 251. Introductory Watercolor Painting (3). Introduces transparent and opaque watercolor painting emphasizing studio practices, fundamental principles, and techniques.

ARTS 252. Introductory Acrylic Painting (3). Introduces acrylic painting emphasizing studio practices, fundamental principles, and techniques.

Upper-Division Courses

ARTS 351. Intermediate Watercolor Studio (3). Emphasizes individual development, personal interpretation, and creativity. Repeatable for credit. Prerequisites: completion of the foundation program and ARTS 251, or departmental consent.

ARTS 352. Decorative and Ornamental Painting and Design (3). An overview of historical and contemporary decorative and ornamental art using slide lecture, classroom demonstration, and studio activity to study techniques including trompe loeil, marbling, graining, faux finishes, stenciling, and ornamental methods for their adaptation to interior, exterior, and furniture decoration and design. Classroom projects can become part of a professional job portfolio. Repeatable for credit.

ARTS 354. Intermediate Painting I (3). Continued development of technical, formal, and conceptual skills studied in introductory painting courses. Preparation for ARTS 356. Prerequisites: completion of foundation program, ARTS 250, 251 or 252, or departmental consent.

ARTS 356. Intermediate Painting II (3). Builds upon concepts in ARTS 354, while emphasizing individual development and a personal response to subject matter. Preparation for ARTS 358. Prerequisite: ARTS 354 or instructor’s consent.

ARTS 358. Intermediate Painting III (3). Continued emphasis on individual development and personal interpretation and response to subject matter while furthering formal understanding. Preparation for study in advanced painting courses. Repeatable for credit. Prerequisite: ARTS 356 or instructor’s consent.

Courses for Graduate/Undergraduate Credit

ARTS 551. Advanced Watercolor Studio (3). For the professionally-oriented student. Emphasizes independent study. Repeatable for credit. Prerequisites: four semesters of ARTS 351 and interview with instructor.

ARTS 552. Advanced Decorative and Ornamental Painting and Design (3). Projects in decorative and ornamental painting and design developed and completed by the student with faculty supervision. Preparation for more independent work. A plan of study defining projects must be submitted and approved by the instructor. Repeatable for credit. Prerequisite: ARTS 352 or instructor’s consent.

ARTS 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.


ARTS 557. Painting Senior Project (4). Culminating course in BFA studio art/painting emphasis. Continued emphasis on individual development. Written senior project proposal and review, critiques with art and design faculty outside of painting emphasis, senior project exhibition, written statement, and review required. Prerequisite: ARTS 554, completion of/concurrent enrollment in ARTS 495, and/or instructor’s consent.

ARTS 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: ARTS 552.

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

**Lower-Division Courses**

**ARTS 161. 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.

**ARTS 261. Introductory Printmaking: Materials and Methods (3).** Focus on intaglio, relief and simplified lithography. Overview of established processes with emphasis on experimental approaches to print media and connections between printmaking and drawing.

**ARTS 262. Introductory Printmaking: Digital to Silkscreen (3).** Focus on digital, silkscreen, photo and transfer techniques. Emphasis of connections between printmaking, graphic design, photography, and new approaches to print media. Prerequisite: ARTS 261 or instructor’s consent.

**Upper-Division Courses**

**ARTS 360. Intermediate Intaglio Print I (3).** Builds on skills developed in ARTS 261. Provides exploratory print experiences in collagraph, relief, monoprint, and intaglio. Prerequisites: ARTF 145 and ARTS 261, 262.

**ARTS 362. Intermediate Intaglio Print II (3).** Third in series of five classes for printmaking majors. Printmaking techniques and materials are the same as in ARTS 360, but emphasizes more involvement with color printing. The format is generally larger and the mixing of intaglio techniques is encouraged. Prerequisites: ARTF 145, ARTS 261, 262, 360.

**Courses for Graduate/Undergraduate Credit**

**ARTS 560. Advanced Intaglio (4).** Fourth in a series of five classes for the printmaking major. Students may specialize in any of the various intaglio, relief, collagraph, paper-casting techniques while emphasizing personal aesthetic preparation. Prerequisites: ARTF 145 and ARTS 360, 362.

**ARTS 561. Advanced Lithography (4).** Third in a series of four printmaking courses for the printmaking student wishing to specialize in lithography. Students may specialize in any of the various lithography techniques while developing a personal aesthetic direction. Prerequisites: ARTF 145 and ARTS 360, 362.

**ARTS 565. Independent Study in Printmaking (1–3).** A professional emphasis on technical and aesthetic research in the printmaking area. Only for the advanced printmaking student with instructor’s consent. Statement of intent must be submitted for faculty approval before registration. Prerequisite: departmental consent.

**ARTS 567. Printmaking Senior Project (4).** Culminating course in BFA studio art/printmaking emphasis. Continued emphasis on individual development. Written senior project proposal and review, critiques with art and design faculty outside of printmaking emphasis, senior project exhibition, written statement, and review required.

**Prerequisite:** ARTS 560 or 561, completion of/concurrent enrollment in ARTS 495, and/or instructor’s consent. Please see the Graduate Catalog for courses numbered 800 and above.

**Sculture**

**Lower-Division Courses**

**ARTS 282. Introductory Sculpture: Modeling to Casting (3).** Introduction to creating sculpture forms, including subtractive, modeling and casting techniques, incorporating both contemporary and traditional approaches to processes. Unorthodox approaches as well as traditional methods are encouraged. Experimentation and creative problem solving are important to all aspects of the curriculum. Prerequisites: ARTF 145 and 189.

**ARTS 283. Introductory Sculpture: Design to Fabrication (3).** Introduction to sculpture fabrication, including assembly methods, material choices, and structural design, incorporating both contemporary and traditional approaches to processes. Unorthodox approaches as well as traditional metal and wood constructions are encouraged. Experimentation and creative problem solving are important to all aspects of the curriculum. Prerequisites: ARTF 145, 189.

**Upper-Division Courses**

**ARTS 380. Intermediate Sculpture (3).** Emphasizes individual artistic development by stressing concepts, methods of creation and research on the historical context of student work. Includes instruction in contemporary and traditional sculpture techniques. Repeatable once for credit. Prerequisites: completion of foundation program and ARTS 282, 283.

**ARTS 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 ARTS 282, 283.

**Courses for Graduate/Undergraduate Credit**

**ARTS 580. Advanced Sculpture (4).** Sculpture in any medium, emphasizing individual development and creativity. Preparation for ARTS 587. Repeatable for credit. Prerequisite: ARTS 380.

**ARTS 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.

**ARTS 587. Sculpture Senior Project (4).** Culminating course in BFA studio art/sculpture emphasis. Continued emphasis on individual development. Written senior project proposal and review, critiques with art and design faculty outside of sculpture emphasis, senior project exhibition, written statement, and review required. Prerequisites: ARTS 580, completion of/concurrent enrollment in ARTS 495, and/or instructor’s consent. Please see the Graduate Catalog for courses numbered 800 and above.

**School of Music**

**finearts.wichita.edu/music**

**John Paul Johnson, director**

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 Wiedemann Hall; these include the Lewis and Selma Miller Concert Hall and the recital/concert auditorium in Wiedemann Hall, which was constructed in 1986 to house the first Marcussen organ in North America.

**Policies**

**Proficiency Examinations**

Students eligible for university enrollment may enter a music degree program. However, majors in music must demonstrate 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 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 institutions 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 (see 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 arrangement 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 (juniors 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 arrangement 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 or 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, MUSA 112 (non-majors), 231 and 232; juniors and seniors, MUSA 112 (non-majors), 431, 432, and 434; and graduate students, MUSA 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 performing medium.

### Recitals

All music majors are required to enroll in four semesters of MUSP 105, 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 (MUSP 400 for BM and BM majors; MUSP 450 or 451 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 hour 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 applied instruction even though there may be credits to complete after the senior recital has been performed.

### Graduation Requirements

#### Bachelor of Music Requirements

Students receiving the Bachelor of Music (BM) choose either a performing medium (piano, organ, voice, strings, wind, or percussion) or theory-composition as their major area of emphasis.

The general graduation requirements of the university must be met as described in the Catalog under the 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

<table>
<thead>
<tr>
<th>Area</th>
<th>Hrs.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Applied Music</td>
<td>20</td>
</tr>
<tr>
<td>Chief performing medium (piano, organ)</td>
<td>16</td>
</tr>
<tr>
<td>Other performing medium</td>
<td>4</td>
</tr>
<tr>
<td>Chief performing medium (non-keybd)</td>
<td>8</td>
</tr>
<tr>
<td>Keyboard performing medium</td>
<td>8</td>
</tr>
<tr>
<td>Other performing media</td>
<td>4</td>
</tr>
<tr>
<td>Theory and Composition</td>
<td>40</td>
</tr>
<tr>
<td>History and Literature of Music</td>
<td>12</td>
</tr>
<tr>
<td>MUSC 113, 334, 335, and 3 hours of upper-division electives in music history or literature</td>
<td></td>
</tr>
<tr>
<td>Conducting</td>
<td>4</td>
</tr>
<tr>
<td>MUSP 217 or 218 and 651 or 691</td>
<td></td>
</tr>
<tr>
<td>Ensembles*</td>
<td>8–10</td>
</tr>
<tr>
<td>Electives (music or non-music courses)</td>
<td>7</td>
</tr>
<tr>
<td>Recital attendance (four smstr of MUSP 105)</td>
<td>4</td>
</tr>
<tr>
<td>Senior Recital (MUSP 400)</td>
<td>1</td>
</tr>
</tbody>
</table>

*See degree check sheets for specified ensembles. Ensembles are counted by semester.

#### Theory-composition majors are required to present for 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 an 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 done manually in ink or by laser printing 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 their applied music instructor and achievement of junior proficiency in that instrument.

### BM in Instrumental Performance—Jazz Studies Emphasis

<table>
<thead>
<tr>
<th>Course</th>
<th>Hrs.</th>
</tr>
</thead>
<tbody>
<tr>
<td>MUSA 313</td>
<td>Jazz Piano</td>
</tr>
<tr>
<td>MUSA 240</td>
<td>Jazz Theory I</td>
</tr>
<tr>
<td>MUSA 241</td>
<td>Jazz Aural Skills I</td>
</tr>
<tr>
<td>MUSA 242</td>
<td>Jazz Theory II</td>
</tr>
<tr>
<td>MUSA 243</td>
<td>Jazz Aural Skills II</td>
</tr>
<tr>
<td>MUSA 345</td>
<td>Jazz Arranging</td>
</tr>
<tr>
<td>MUSA 346</td>
<td>Styles of Jazz</td>
</tr>
<tr>
<td>MUSA 120</td>
<td>Jazz Improvisation I</td>
</tr>
<tr>
<td>MUSA 121</td>
<td>Jazz Improvisation II</td>
</tr>
<tr>
<td>MUSE 511</td>
<td>Jazz Pedagogy</td>
</tr>
</tbody>
</table>
BM in Performance—Instrumental Emphasis

**Area** ................................. Hrs.

Applied Music ............................ 28
Chief performing medium ............... 24
Second performing medium 4 (four semesters) .................. 4
Theory .................................. 22
MUSC 127–129, 128–130, 227–229, 228–230, 523, 561 or 661 and 641, or 345, or 753
History and Literature of Music .......... 12
MUSC 113, 334, 335, and 162 or 3 hours of upper-division electives in music history or literature

Conducting ............................... 4
MUSP 217 and 651
Ensembles*§ .............................. 10
Electives (music courses) ............... 14
Pedagogy (MUSP 620 for violin/viola; MUSP 680 for woodwind; MUSP 681 for brass; MUSP 682 for percussion; MUSP 790 for all other instrumental BM majors) .... 2
Senior Recital (MUSP 400) ............... 1
Recital attendance (specified number of recitals per semester for four semesters, MUSP 105) ........................ 4

*See degree check sheets for specified ensembles.
§ Ensembles are counted by semester.

BM in Performance—Keyboard Emphasis

**Area** ................................. Hrs.

All Programs ............................... 26
Applied Music ............................. 24
Chief performing medium
(see specific major).......................... 4
Second performing medium ................. 4
Theory .................................. 22
MUSC 127–129, 128–130, 227–229, 228–230, 523, 561 or 661, and 641, or 345, or 753
History and Literature of Music .......... 9
MUSC 113, 334, and 335
Conducting ............................... 4
MUSP 217 or 218 and 651 or 691
Ensembles (see specific major) ........... 2
Recital Attendance
MUSP 105 (enrollment for four semesters in a specified number of recitals) ............... 4

*See degree check sheets for specified ensembles.
§ Ensembles are counted by semester.

**Specific Keyboard Program Requirements**

**Piano Performance Emphasis**

Applied Piano ............................. 24
Second performing medium ................. 4
MUSP 250 and 251, Applied Piano Concerto 4
MUSP 207–407, Piano Repertoire .......... 6
MUSP 580, Piano Pedagogy ................. 2
MUSC 782 and 783, Piano Literature ..... 6
Ensembles*§ .............................. 8
(4 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.)
MUSP 300, Junior Recital (piano) ........... 1
MUSP 400, Senior Recital (piano) .......... 1

*See degree check sheets for specified ensembles.
§ Ensembles are counted by semester.

**Organ Emphasis**

Applied Organ ............................. 24
MUSC 597 and 598, Organ Literature and Practice .......................... 2
Ensembles*§ .............................. 10
(Keyboard scholarship recipients are required to enroll in accompanying or an ensemble each semester they hold a scholarship.)
MUSP 400, Senior Recital (organ) .......... 1
Electives ................................. 15

*See degree check sheets for specified ensembles.
§ Ensembles are counted by semester.

**BM in Performance—Vocal Emphasis**

**Area** ................................. Hrs.

Applied Music ............................. 26
Voice .................................... 28
Piano (two semesters) ...................... 2
Study in another instrument may be substituted if student meets piano proficiency requirement.

Theory .................................. 18
MUSC 127–129, 128–130, 227–229, 228–230, and 523 or 661
History and Literature of Music .......... 9
MUSC 113, 334, and 335
Conducting ............................... 2
MUSP 218
Performance studies ........................ 5
DANC 227 or 210, MUSP 211E or 411E, MUSP 212E or 412E Voice Pedagogy, Literature and Diction .............. 9
MUSP 121, 122, 221, 222, 625, and MUSC 726
Ensembles*§ .............................. 10
Electives ................................. 10
Choose from:
MUSP 211E or 411E, 340, 762, 790E, MUSC 623, 624
DANC 227 or 210*
THEA 243, 254
*if not taken in performance studies
Recital attendance (specified number of recitals per semester for four semesters, MUSP 105) ........................ 4
Junior Recital (MUSP 300) ................. 1
Senior Recital (MUSP 400) ................. 1
Foreign language .......................... 15
ITAL 111 plus choose 10 hours from ITAL 112, FREN 111 and/or GERM 111 and/or 112

*See degree check sheets for specified ensembles.
§ Ensembles are counted by semester.

**BM with Elective Studies in Business**

**Area** ................................. Hrs.

Applied Music ............................. 20
Chief performing medium ................. 16
Second performing medium
(four semesters) .......................... 4
Theory .................................. 20
MUSC 127–129, 128–130, 227–229, 228–230, 561 or 661, 641 or 753 or 345
History and Literature of Music .......... 9
MUSC 113, 334, and 335
Conducting ............................... 4
MUSP 217 or 218 and 651 or 691
Ensembles*§ .............................. 8 or 10
Electives ................................. 3–5
Vocal majors require three diction classes
Piano majors require MUSP 580
Senior Recital (MUSP 400) ................. 1
Recital attendance (specified number of recitals per semester for four semesters, MUSP 105) ........................ 4
Business Requirements ........................ 21
ECON 201, 202 (6); ACCT 210, MGMT 360

*See degree check sheets for specified ensembles.
§ Ensembles are counted by semester.
BM with Elective Studies in Journalism News Editorial Emphasis

Area ................................................. Hrs.
Applied Music ............................ 20
Chief performing medium .......... 16
Second performing medium (four semesters) ........................................... 4
Theory .............................................. 20
MUSC 127–129, 128–130, 227–229, 228–230, 561 or 661, 641 or 753 or 345
History and Literature of Music .... 9
MUSC 113, 334, and 335
Conducting: MUSP 217 or 218 and 561 or 691 4
Ensembles*§  ........................................... 8 or 10
Electives ........................................... 3–5
Vocal majors require three diction classes
Piano majors require MUSP 580
Senior Recital (MUSP 400) ............ 1
Recital attendance (specified number of recitals per semester for four semesters, MUSP 105) . . 4
Journalism Requirements .......... 24
COMM 130 (3); 301 (3); 304 (3); 324 (3);
302 or 525 (3); 550 (3); 630 (3); 675 (3)

*Bachelor of Music Education—

Requirements

Students receiving the Bachelor of Music Education (BME) must meet the state requirements for licensure. Students may select from three options within this degree:

1. Instrumental emphasis offered to satisfy the needs of students whose chief performing medium is instrumental or keyboard and who plan to enter the field of instrumental music teaching in the public schools.

2. Vocal emphasis offered to satisfy the needs of students whose chief performing medium is voice, piano, or guitar and who plan to enter the field of vocal and general music teaching in the public schools.

3. Special music education emphasis offered to satisfy the needs of students, either vocal or instrumental specialists, who plan to enter the field of music education for special education children in the public schools.

Student Teaching

Admission into the student teaching semester requires a minimum cumulative grade point average of 2.500; a minimum grade point average of 2.500 in music courses; senior standing (90 hours—200 credit points); a grade of C or better in ENGL 101 or its equivalent and ENGL 102, College English I and II; COMM 111, Public Speaking; and MATH 110, College Algebra; completion of prerequisites in educational psychology; foundations of education and music education methods; successful completion of the piano proficiency exam and all other music requirements (including senior recital); successful completion of a physical examination; and a recommendation by the music education area.

Transfer students must satisfy education requirements for prerequisites not taken at Wichita State.

All students must have an application on file with the music education area and receive its approval. Students must file applications with the director of music education.

Graduation Requirements

The following program fulfills both the university requirements for graduation and the Kansas licensure requirement and must be taken by all Bachelor of Music Education candidates. In completing the BME program, the student must meet the general education program requirements of the university given in the Academic Information, Requirements for Graduation section of the Catalog.

Bachelor of Music Education—

Instrumental

Area ................................................. Hrs.
Music Requirements

Applied Music ............................ 16
primary medium ......................... 14
secondary medium ...................... 2
Students must be enrolled in applied music during the semester of their senior recital.

General Music ............. 33–37

Theory .............................................. 20
MUSC 127–129, 128–130, 227–229, 228–230, 561 or 661, 641 or 753 or 345
History & Literature of Music .... 9
MUSC 113, 334, and 335
Conducting ...................................... 4
MUSP 217, 651
Additional Requirements .......... 2
MUSP 207, 407 (piano majors only)
Ensembles*§  ....................................... 7
Recital attendance (two semesters of MUSP 105) . . 2
Senior Recital (MUSP 400) ............ 1

Music Education Requirements

Introduction ................................... 3
MUSE 171, 271
Core I ................................................. 9
CESP 334; CI 311, 321; MUSE 317, 611
Core II ........................................... 10
CESP 433; MUSE 304, 305, 324
Core III ........................................... 12
MUSE 405, 451, 469
Additional Requirements .......... 10
MUSE 235, 236, 237, 238, 239, 240, 342, 348, or 7905 or MUSP 620

*See degree check sheets for specified ensembles.

§Ensembles are counted by semester.

Bachelor of Music Education—

Vocal/Keyboard

Area ................................................. Hrs.
Music Requirements

Applied Music ............................ 16
primary medium ......................... 14

*See degree check sheets for specified ensembles.

§Ensembles are counted by semester.
Bachelor of Special Music Education

Area .................................................. Hrs.
Music Requirements .............................. 16
Applied Music ...................................... 16
primary medium ................................. 14
secondary medium ............................... 2
Students must be enrolled in applied music
during the semester of their senior recital.

General Music ................................. 33–37
Theory ................................................. 20
MUSC 127–129, 128–130, 227–229, 228–230,
523, 641
History & Literature of Music ................. 9
MUSC 113, 334, 335
Conducting ............................................ 4
MUSP 217 or 218 and 651 or 691
Additional Requirements (Piano only) .... 4
Piano Performance Majors ..................... 4
MUSP 207, 407, 580, or 581
Piano Pedagogy Majors ......................... 4
MUSP 580 or 581, 790
Ensembles*§ ......................................... 8–9
Recital attendance (two smstr. of MUSP 105) . 2
Senior Recital (MUSP 400) ..................... 1

MUSE 171, 271
Core I .................................................. 9
CESP 334; CI 311, 321; MUSE 317, 611
Core II ............................................... 10
CESP 433; MUSE 303, 305, 323
Core III ............................................... 12
MUSE 405, 451, 469
Additional Requirements ....................... 4
MUSE 241, 242, 342

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: MUSC 113, 127, 128, 129, 130,
and 9 additional hours selected from
among the following: MUSC 162, 227, 228,
229, 230, 334, 335, 523, music applied (4-hour maximum), and music ensembles
(4-hour maximum).

Music Education (MUSE)

Lower-Division Courses

MUSE 171. Orientation to Music Education (1).
Looks at the concepts of comprehensive musician-
ship and develops strategies for leading music activities
in a variety of scenarios. Learn observation tech-
niques appropriate for viewing a wide range of
instrumental and vocal performances.

MUSE 235. Methods of Teaching Orchestral
Instruments (Violin and Viola) (1). 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.

MUSE 236. Methods of Teaching Orchestral
Instruments (Cello and String Bass) (1). Procedures
and materials for class and private teaching. Applies
fundamental techniques. Includes knowledge of
more difficult positions and special techniques.
Includes band and orchestra laboratory. Grades 4–12.

MUSE 237. Methods of Teaching Band and
Orchestral Instruments (Clarinet and Saxophone)
(1). 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, reed selection and
adjustment, instrument brands, and
the development of sufficient playing skills.
Grades 4–12.

MUSE 238. 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.

MUSE 240. Methods of Teaching Band and
Orchestral Instruments (Percussion) (1).
Prepares the prospective instrumental music
instructor to effectively teach band and percussion
in the public school setting. Includes discussions of
fundamental techniques. Identification of problems
peculiar to each instrument, care of instrument,
instructional materials, and the
development of sufficient playing skills.
Grades 4–12.

MUSE 241. String Rehearsal Methods (1).
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, and the
development of sufficient playing skills.
Grades 4–12.

MUSE 242. Wind and Percussion Rehearsal
Methods (1). Prepares the prospective instrumental music
instructor to effectively teach band and percussion
in the public school setting. Includes discussions of
fundamental techniques. Identification of problems
peculiar to each instrument, care of instrument,
instructional materials, and the
development of sufficient playing skills.
Grades 4–12.

MUSE 271. Introduction to Music Education (2).
Demonstrate familiarity with the scope and pro-
gram of K–12 music education. Articulate a current
music education philosophy while developing leader-
ership skills for a variety of music activities
and teaching scenarios. Prerequisite: MUSE 171.
Upper-Division Courses

MUSE 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: MUSE 323.

MUSE 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. Grades 4–8. Prerequisite: MUSE 204.

MUSE 305. Presudent Teaching (2). This field-based course allows the student to spend extended time in an appropriate music classroom working with a cooperating teacher. Provides opportunities for the student to plan and design instruction, implement instruction, and reflect on the role of the practitioner. Prerequisites: acceptance into teacher education and instructor’s consent.

MUSE 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 (self-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: MUSE 304 or 323 with instructor’s consent.

MUSE 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 to learn in content areas. Students receive training to use the six-trait Analytical Rating Guide for assessing writing, which is the method used to score the Kansas State Writing Assessment. Prerequisites: acceptance into teacher education, MUSE 303/304 or instructor’s consent.

MUSE 323. 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. Prerequisites: MUSP 218 and music education major or instructor’s consent.


MUSE 325. Music Fundamentals for the Classroom Teacher (2–3). 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.

MUSE 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. To be taken during student teaching semester. Grades K–12. Prerequisites: MUSE 303 and 323; also 309 for special music education majors. Includes content area reading modules.


MUSE 452. Student Teaching in Special Music Education (2). Practicum 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, 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 (MUSE 303/304 and 309), Presudent Teaching, CESP 433. Corequisite: student teaching seminar.

MUSE 469. Student Teaching: Secondary Music (5). Prerequisites: acceptance into teacher education, methods in the subject area, CI 312 and 328, CESP 433, 2.50 GPA in the major, Corequisites: CI 457 and student teaching seminar.


Courses for Graduate/Undergraduate Credit

MUSE 606. Music Methods for Early Childhood Education (2–3). Methods and materials for teaching music in the preschool 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.

MUSE 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 functioning children and their problems and current theory and practices in special music education. Satisfies the requirement, effective September 1, 1981, 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.

MUSE 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 drill and corps-style marching using manual methods and computer generated graphics. Field observations, films, photographs, and live performances by marching bands complement the class syllabus. Required for all instrumental majors.

MUSE 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 6–9.

MUSE 750. Music Education Workshop (1–4). Repeatable for credit.

MUSE 781. Cooperative Education (1–4). A field placement which integrates coursework with a planned and supervised professional experience designed to complement and enhance the student’s academic program. Individualized programs must be formulated with and approved by appropriate faculty sponsors and cooperative education coordinators. Note: a maximum of 4 S/U or Cr/NCr credits may be counted toward a graduate degree and must be taken in consultation with the graduate advisor for an approved graduate plan of study. Prerequisite: satisfactory academic standing prior to the first job assignment. May be repeated for credit. Offered Cr/NCr only.

MUSE 785. Instrumental Music Organization and Administration (2). Problems of developing school instrumental music programs.

MUSE 790. Special Topics in Music (1–4). For individual or group instruction. Individual study enrollment requires departmental consent. Repeatable with departmental consent.

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

Music Performance (MUSP)

Applied Music—Private Study (MUSP)

Lower-Division Courses

MUSA 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.

MUSA 231. Applied Music Instruction (1). For majors only; study on secondary instruments. Basic instruction. Repeatable for credit. Lower division.

MUSA 232. Applied Music Instruction (2). For majors only. Repeatable for credit. Lower division.

MUSA 252 Applied Music—Jazz (2). For majors only. Repeatable for credit. Lower division.
Upper-Division Courses

MUSA 313J. Basic Jazz Piano (2). Develops an understanding of jazz harmony at the keyboard. Emphasizes performance of chord progressions from jazz works. Prerequisite: piano proficiency.

MUSA 431. Applied Music Instruction (1). For majors only; study on secondary instruments. Basic instruction. Repeatable for credit. Upper division.

MUSA 432. Applied Music Instruction (2). For majors only. Repeatable for credit. Upper division.


MUSA 452. Applied Music—Jazz (2). For majors only. Repeatable for credit. Upper division.

Courses for Graduate/Undergraduate Credit

MUSA 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.

MUSA 731. Applied Music Instruction (1). For majors only; study on secondary instruments. Basic instruction. Repeatable for credit. Graduate.

MUSA 732. Applied Music Instruction (2). For majors only. Repeatable for credit. Graduate.

MUSA 734. Applied Music Instruction (4). For performance and pedagogy majors or students preparing for master’s degree recitals only. Repeatable for credit. Graduate.

Applied Music Media Designations

<table>
<thead>
<tr>
<th>A Bassoon</th>
<th>B Cello</th>
<th>C Clarinet</th>
<th>D Euphonium</th>
<th>E Flute</th>
<th>F French Horn</th>
<th>G Classical Guitar</th>
<th>J Guitar</th>
<th>K Harp</th>
<th>L Oboe</th>
<th>M Organ</th>
<th>N Percussion</th>
</tr>
</thead>
</table>

Applied Music—Class Instruction (MUSA)

MUSA 116P. Piano Class. Level 4 (1). Non-piano music majors. Repeatable for credit. Prerequisite: class placement interview.

MUSA 117P. Piano Class (1). Non-piano music majors. Prerequisite: class placement interview. Repeatable.

MUSA 117W. Violin Class for Adult Beginners (2). 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.

MUSA 118P. Piano Class (1). Non-piano music majors. Prerequisite: class placement interview. Repeatable.

MUSA 119P. Piano Class (1). Piano majors. Prerequisite: class placement interview. Repeatable.

MUSA 120P. Piano for Fun—Non-majors (2). Non-majors. Repeatable.

MUSA 232O. Voice for Musical Theatre (2). Applied voice instruction emphasizing musical theatre techniques. Students work on repertoire from “legit” and “belt” repertoire.

Upper-Division Courses

MUSA 432O. Voice for Musical Theatre (2). See MUSA 232O.

Courses for Graduate/Undergraduate Credit

MUSA 717W. Violin Class for Adult Beginners (2). 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.

MUSA 717Y. Popular Vocal Styles (2). Class voice instruction for adults emphasizing basic vocal technique and how it can be applied for use in popular styles of singing, including vocal jazz, pop, music theatre, etc. Gives students an opportunity to explore techniques for developing their own voices and to practice singing in a supportive environment. Includes information via lecture, demonstration, and listening to recordings related to stylistic differences in the popular idiom. Intended for non-music majors; not applicable to music degree requirements. Repeatable.

MUSA 717Y. Popular Vocal Styles (2). Class voice instruction for adults emphasizing basic vocal technique and how it can be applied for use in popular styles of singing, including vocal jazz, pop, music theatre, etc. Gives students an opportunity to explore techniques for developing their own voices and to practice singing in a supportive environment. Includes information via lecture, demonstration, and listening to recordings related to stylistic differences in the popular idiom. Intended for non-music majors; not applicable to music degree requirements. Repeatable.

MUSP 105. Recital (1). Recital attendance and performance. Laboratory observation of performance media, literature, and recital techniques. Election is required for BA and BM majors according to the requirements of the degree checklist at the time of enrollment. Repeatable.

MUSP 121. Italian Diction (1). For the vocal performer, including a comprehensive study of Italian consonant and vowel sounds.

MUSP 122. English Diction (1). For the vocal performer, including a comprehensive study of English consonant and vowel sounds.

MUSP 148. Double Reed Making and Adjusting (1). Making and adjusting oboe, English horn, and bassoon reeds. Repeatable for credit. Prerequisite: MUSE 238 or instructor’s consent.


MUSP 207. Piano Repertoire (1–1). Gives performing and listening experience to piano majors. Repeatable for credit.


MUSP 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.

MUSP 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 repertory with orchestral accompaniment. Repeatable for credit. Prerequisite: audition required.

MUSP 211U. Musical Theatre Performance (1). Cross-listed as DANC 320 and THEA 180E. 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.

MUSP 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 orchestral accompaniment. Repeatable for credit. Prerequisite: audition required.

MUSP 217. Instrumental Conducting (2). Fundamentals of baton technique, elementary score reading and musical leadership. Practical experience in conducting laboratory and classroom groups. Prerequisites: MUSC 129 and 130.

MUSP 218. Choral Conducting (2). Fundamentals of conducting, score reading, and rehearsal techniques. Practical experience conducting classroom groups. Prerequisites: MUSC 129 and 130.

MUSP 221. German Diction (1). For the vocal performer, including a comprehensive study of German consonant and vowel sounds.
MUSP 222. French Diction (1). For the vocal performer, including a comprehensive study of French consonant and vowel sounds.


MUSP 281. Cooperative Education (1–8). A field placement which integrates coursework 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 coursework 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. Prerequisites: successful completion of the freshman year and satisfactory academic standing prior to the first job assignment. May be repeated for credit. Offered Cr/NCr only.

Upper-Division Courses

MUSP 300. Junior Recital (1). Required for BM piano majors, performance or accompanying emphasis. Prerequisite: departmental consent.

MUSP 330. Musical Theatre Workshop I (2). Cross-listed as THEA 330. An interdisciplinary practicum course with opportunities for student performers to refine techniques by performing scenes from a variety of musical theatre genres, including opera, book musicals, and rock musicals. Advanced students gain experience in directing and choreographing under faculty guidance and supervision. Prerequisites: junior or senior musical theatre, dance, and voice majors only; and/or instructor's consent.

MUSP 400. Senior Recital (1). Prerequisite: departmental consent.


MUSP 411E. Opera Lab (1). See MUSP 211E.

MUSP 411K. Opera Theatre (1). See MUSP 211K.

MUSP 411U. Musical Theatre Performance (1). Cross-listed as DANC 320 and THEA 380E. See MUSP 211U.

MUSP 412K. Opera Theatre (2). See MUSP 212K.

MUSP 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 orchestral accompaniment. Repeatable for credit. Prerequisite: audition required.

MUSP 415Y. Voice for Musical Theatre (2). Studies vocal techniques necessary for performances in contemporary musical theatre productions, including belt and legitimate styles. Repeatable for credit. Prerequisite: musical theatre major.


MUSP 450–451. Accompanying Recital (1–1). Required for BM piano majors, accompanying emphasis. Prerequisite: departmental consent.


Courses for Graduate/Undergraduate Credit

MUSP 530. Musical Theatre Workshop (2). An interdisciplinary practicum course with opportunities for student performers to refine techniques by performing scenes from a variety of musical theatre genres, including opera, book musicals, and rock musicals. Advanced students gain experience in directing and choreographing under faculty guidance and supervision. Prerequisites: junior or senior musical theatre, dance, and voice majors only; and/or instructor's consent.

MUSP 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.

MUSP 580. Piano Pedagogy (2). Primarily the art and science of teaching. Includes observations of master teachers in the university and community.

MUSP 581. Piano Teaching Materials (2). A survey of teaching methods and materials from beginning through early advanced levels.

MUSP 620. String Pedagogy: Violin and Viola (2). Required for violin and viola performance majors. A study of technical 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.

MUSP 625. Voice Pedagogy (2). Acquaints the voice major with vocal techniques, concepts, and materials of private and class instruction.

MUSP 651. Advanced Conducting and Score Reading (2). Baton technique, score reading, and musicianship. Prerequisite: MUSP 217 or 218 or equivalent.

MUSP 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.

MUSP 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.

MUSP 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. Prerequisite: performance capability on percussion instruments or instructor's consent.

MUSP 691. Advanced Choral Conducting (2). A comprehensive study of conducting and rehearsal techniques, analysis, and ear training and types of choral composition for the advanced student. Prerequisite: MUSP 217 or 218 or equivalent.

MUSP 707. Piano Repertoire (1). Performing and listening experience to piano performance majors. Repeatable for credit.


MUSP 711E. Opera Lab (1). See MUSP 211E.

MUSP 711K. Opera Theatre (1). See MUSP 211K.

MUSP 711U. Musical Theatre Performance (1). Cross-listed as DANC 320 and THEA 390E. See MUSP 211U.

MUSP 712K. Opera Theatre (2). See MUSP 212K.

MUSP 714K. Opera Theatre (4). See MUSP 414K.

MUSP 715Y. Voice for Music Theater (2). Basic repertoire and singing techniques with weekly master class devoted to music theater techniques and concepts. Restricted to persons other than vocal majors. Repeatable.

MUSP 723. Applied Piano Accompanying (4). Individual private study of standard accompaniment literature with preparation of a terminal project recital (either vocal or instrumental). Prerequisite: successful completion of two semesters of graduate piano study.

MUSP 724. Applied Piano Accompanying (4). Individual private study of standard accompaniment literature with preparation of a terminal project recital (either vocal or instrumental).
Prerequisite: successful completion of two semesters of graduate piano study.


MUSP 760. Group Piano Practicum (2). Supervised group piano teaching for graduate students. Prerequisites: MUSP 580 and 581.

MUSP 761. Studio Piano Practicum (2). Supervised studio teaching for graduate students. Prerequisites: MUSP 580 and 581.

MUSP 762. Opera Styles (2). A comprehensive study of the performance styles and practices in operatic singing, ranging from the 17th century to the present. Prerequisite: instructor's consent.

MUSP 773. Acting for Singers (3). Studies 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.

MUSP 790. Special Topics in Music (1–2). For individual or group instruction. Repeatable with departmental consent.

MUSP 790E. Musical Theatre and Opera Audition (3). Cross-listed as THEA 630. Practicum course develops techniques and audition repertory 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 (MUSC)

Lower-Division Courses

MUSC 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. Required for music majors.

MUSC 114. Music Literature Survey (2). A survey of representative works from the vocal and instrumental repertoire. Prerequisite: MUSC 113 or instructor's consent.

MUSC 120. Jazz Improv, Level I (2). Develops skills used in jazz improvisation, teaching memorization and group jazz styles.

MUSC 121. Jazz Improv, Level II (2). Develops skills used in jazz improvisation, teaching students to memorize melody and harmony to pieces from jazz bebop repertoire. Prerequisite: MUSC 120.

MUSC 127. Theory I (2). Fundamentals of music, melodic writing and analysis, elementary melodic formal structures (cadences, phrase, period), basic orchestration, and simple 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. Corequisite: MUSC 129.

MUSC 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. Corequisites: MUSC 129 and departmental consent.

MUSC 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: MUSC 127 and concurrent enrollment in MUSC 129 or 130.

MUSC 128H. Theory II Honors (2). Formal expansion includes binary and ternary structures. Further elaborates basic harmonic structures. Prerequisites: MUSC 127 or 127H. Corequisites: MUSC 129 or 130, and departmental consent.

MUSC 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-1-80: “the ability to teach reading skills appropriate to the level of the student and to the subject content.”

MUSC 130. Aural Skills II (2). Continuation of elegant, rhythmic perception. Includes recognition and dictation of diatonic harmonic structures. 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.”

MUSC 130A. World 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 students may perceive and understand fundamental musical processes as they exist in the various styles within the Western heritage.

MUSC 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 students may perceive and understand fundamental musical processes as they exist in the various styles within the Western heritage.

MUSC 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.

MUSC 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.

MUSC 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: MUSC 128.

MUSC 227H. Theory III Honors (2). See MUSC 227. Prerequisites: MUSC 128 or 128H and departmental consent.

MUSC 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: MUSC 227.

MUSC 228H. Theory IV Honors (2). See MUSC 228. Prerequisites: MUSC 227 or 227H and departmental consent.

MUSC 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: MUSC 130.

MUSC 230. Aural Skills IV (2). Summation and expansion of previous skills further emphasizing harmonic chromaticism and atonal 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: MUSC 229.

MUSC 240. Jazz Music Theory III (2). Introduces jazz music theory with emphasis on chord progression, chord extensions, and symbols, with practical knowledge of common practice theory. Prerequisite: MUSC 128.

MUSC 241. Jazz Aural Skills II (3). Designed to help develop practical ear training for skills used in jazz performance, stressing the importance of the aural tradition. Prerequisite: MUSC 129.

MUSC 242 Jazz Music Theory IV (2). A continuation of MUSC 240, which is designed to have an emphasis on chord progression, chord extensions and symbols, with practical knowledge of common practice theory. Prerequisite: MUSC 240.

MUSC 243. Jazz Aural Skills IV (2). A continuation of MUSC 241, which is designed to help develop practical ear training for skills used in jazz performance, stressing the importance of the aural tradition. Prerequisite: MUSC 241.

MUSC 245. Jazz Improvisation (2). Melodic, harmonic, and rhythmic creation emphasizing the relationship of scale patterns and seventh chords. Repeatable for credit. Prerequisites: MUSC 128 and 130 or instructor’s consent.

MUSC 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: MUSC 127 or equivalent and instructor’s consent.

Upper-Division Courses

> MUSC 310. Interrelated Arts (3). General education issues and perspectives course. Presents an aesthetic analysis of three fine arts. Emphasizes style and
commonality among the fine arts (art, music, drama).

MUSC 334. History of Music I (3). Survey of the evolution of musical styles and practices in the Western world through 1750. Includes lectures, references readings, and studies representative examples of music. Prerequisites: MUSC 113 and 227, or instructor’s consent.

MUSC 335. History of Music II (3). Survey of the evolution of musical styles and practices in the Western world from 1750 to the present. Includes lectures, reference readings, and studies representative examples of music. Prerequisites: MUSC 113 and 228 or instructor’s consent.

MUSC 345. Jazz Arranging (2). Arranging for small and large jazz ensembles emphasizing current big band styles. Prerequisites: MUSC 228 and 230 or instructor’s consent.

>MUSC 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.

MUSC 348. History of Jazz (3). A chronological survey of the major styles and artists of jazz, from African influences to the present.

>MUSC 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

MUSC 510. Interrelated Arts (3). Presents an aesthetic analysis of the fine arts: music, visual arts, drama, literature, and dance. Emphasizes style and commonality among the arts disciplines.

MUSC 523. Form and Analysis (2). Extensive analysis of the forms and formal processes of musical literature. Prerequisite: MUSC 228.

MUSC 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.


MUSC 561. 18th Century Counterpoint (2). Contrapuntal devices of the 18th century as found in the works of J.S. Bach. Prerequisite: MUSC 228.

MUSC 597–598. Organ Literature (1-1). Performance and discussion of works for the instrument of all periods; study of organ design and construction; and practice in aspects of service playing, such as hymn playing, modulation, accompanying, and improvising. Required of all organ majors. Repeatable. Prerequisite: MUSC 228 or departmental consent.

MUSC 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 MUSC 334 and 335.

MUSC 623. Opera Literature (3). A comprehensive survey of Italian, German, French, Russian, English, and American opera literature from the 17th century to the present. MUSC 113 is strongly recommended before taking the course. For upper-division or graduate students. Not limited to music majors.

MUSC 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.

MUSC 641. Orchestration (2). The study of instrumentation, emphasizing idiomatic scoring for various instrumental combinations with an approach to the problems of full orchestra and band scores. Prerequisite: MUSC 227.

MUSC 660. Applied Composition (2). Individual study in musical composition emphasizing writing for both small ensembles and large groups in the larger forms. Repeatable. Prerequisites: MUSC 560 and instructor’s consent.

MUSC 661. 16th Century Counterpoint (2). Analysis and application of the contrapuntal composition techniques of the 16th century. Prerequisite: MUSC 228.

MUSC 671. Chromatic Harmony (2). Advanced study of chromatic harmonic materials of all periods with special attention to the 19th century. Emphasizes analysis and creative writing. Prerequisite: MUSC 228.

MUSC 672. Contemporary Techniques (2). Advanced study of music from impressionism to the present emphasizing related literature and creative writing. Prerequisite: MUSC 228.

MUSC 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.

MUSC 726. Voice Literature (3). A comprehensive survey of early Italian arias, French chansons, German lieder, contemporary English songs, and Russian and Spanish literature.

MUSC 753. Choral Literature I (2). A historical and stylistic survey of choral literature of the Renaissance and Baroque eras.

MUSC 754. Choral Literature II (2). A historical and stylistic survey of choral literature of the Classical, Romantic, and Contemporary eras.


MUSC 790. Special Topics in Music (1–4). For individual or group instruction. Repeatable with departmental consent.

MUSC 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 evoking 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 800 and above.

School of Performing Arts

finearts.wichita.edu/performing
Wendy Hanes, interim director

The School of Performing Arts includes the areas of dance, musical theatre and theatre. The school offers the Bachelor of Fine Arts (BFA) in performing arts/dance, Bachelor of Fine Arts (BFA) in musical theatre, Bachelor of Fine Arts (BFA) in performing arts/theatre with emphases in theatre performance, technical theatre and speech, and theatre secondary education licensure, and a Bachelor of Arts (BA) in theatre.

All candidates for the BFA degree must complete 45+ hours of upper-division courses.

Dance (DANC)
The Bachelor of Fine Arts (BFA) in performing arts/dance is a degree in dance performance and choreography. Major course offerings include study in modern, ballet, and jazz techniques; choreography, dance history, dance kinesiology, repertory, music for dance, and dance technology. Additional classes are offered in music theatre dance, tap, mime, ballroom, 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.

Students who intend to pursue dance as a major should contact the academic coordinator of dance early in their educational career for assignment to an academic adviser.

Graduation Requirements

Dance majors must complete two semesters of level III technique in modern dance, ballet, and jazz, and two semesters of level IV technique in at least one discipline, with a minimum grade of B. A minimum of 51 hours is required in technique with at least 15 hours in modern dance, ballet and jazz. Students are encouraged to take concurrent ballet and modern
dance technique classes each semester they are enrolled.

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 deem appropriate for 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 students are encouraged 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 DANC 320, Dance Performance, each semester.

As part of the required Senior Project (DANC 580) capstone course, all majors present a senior dance concert to include choreography and performances by the student, determined in consultation with their major adviser and the director of dance. Students are also required to submit a paper, which includes a written analysis and description of the theoretical framework, compositional development, analysis of production, and conclusions. These materials are submitted to the major adviser for approval. Following approval by the major adviser, 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. The faculty seeks 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:

<table>
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<tr>
<th>Course</th>
<th>Hrs.</th>
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<tbody>
<tr>
<td>Modern Dance Technique*</td>
<td>15</td>
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<tr>
<td>DANC 201</td>
<td>Mod. Dance Technique I</td>
</tr>
<tr>
<td>DANC 301</td>
<td>Mod. Dance Technique II (2 semesters)</td>
</tr>
<tr>
<td>DANC 401</td>
<td>Modern Dance Technique III (2 semesters)</td>
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<tr>
<td>Ballet Technique*</td>
<td>15</td>
</tr>
<tr>
<td>DANC 210</td>
<td>Ballet I</td>
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<tr>
<td>DANC 310</td>
<td>Ballet II (2 semesters)</td>
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<tr>
<td>DANC 410</td>
<td>Ballet III (2 semesters)</td>
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<tr>
<td>Jazz Technique*</td>
<td>15</td>
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<tr>
<td>DANC 235</td>
<td>Jazz I</td>
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<tr>
<td>DANC 335</td>
<td>Jazz II (2 semesters)</td>
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<tr>
<td>DANC 435</td>
<td>Jazz III (2 semesters)</td>
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<tr>
<td>Advanced Level Technique*</td>
<td>6</td>
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<tr>
<td>6 hrs of level IV technique in one discipline:</td>
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<tr>
<td>DANC 501</td>
<td>Mod. Dance IV (2 semesters) or</td>
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<tr>
<td>DANC 510</td>
<td>Ballet (2 semesters) or</td>
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<tr>
<td>DANC 545</td>
<td>Jazz (2 semesters)</td>
</tr>
<tr>
<td>Performance</td>
<td>3</td>
</tr>
<tr>
<td>Choreography</td>
<td>12</td>
</tr>
<tr>
<td>DANC 215</td>
<td>Dance Improvisation</td>
</tr>
<tr>
<td>DANC 305</td>
<td>Choreography I</td>
</tr>
<tr>
<td>DANC 405</td>
<td>Choreography II</td>
</tr>
<tr>
<td>DANC 505</td>
<td>Choreography III</td>
</tr>
<tr>
<td>History and Theory</td>
<td>12</td>
</tr>
<tr>
<td>DANC 225</td>
<td>Dance History Ancient Civilization to Early 1900s</td>
</tr>
<tr>
<td>DANC 325</td>
<td>Dance History: 20th &amp; 21st Centuries</td>
</tr>
<tr>
<td>DANC 315</td>
<td>Music for Dance</td>
</tr>
<tr>
<td>DANC 415</td>
<td>Dance Kinesiology</td>
</tr>
<tr>
<td>DANC 335 or 435</td>
<td>Jazz II or III</td>
</tr>
<tr>
<td>DANC 310 or 410</td>
<td>Ballet I or II</td>
</tr>
<tr>
<td>DANC 235 or 335</td>
<td>Jazz I or II</td>
</tr>
</tbody>
</table>

Dance Technique (further study) | 6 |

6 hours in two disciplines
- DANC 301 or 401 Modern II or III | 3 |
- DANC 310 or 410 Ballet II or III | 3 |
- DANC 335 or 435 Jazz II or III | 3 |
- Dance History | 3 |
- DANC 225 | Dance History Ancient Civilization to Early 1900s | 3 |
- DANC 325 | Dance History: 20th & 21st Centuries | 3 |
- Elective | 3 |

At least 3 hrs from the following electives:
- DANC 130A, 130B, 130O, 130V, 140, 225, 227, 230, 315, 320, 415

Lower-Division Courses


DANC 150. Dance Workshop (1–4). Repeatable for credit.

DANC 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.

DANC 210. Ballet I (2–3). Introduces basic technique, positions, basic steps, proper body alignment, classroom structure, and etiquette and ballet vocabulary. Repeatable for credit.

DANC 215. Dance Improvisation (3). An introduction to the process of spontaneous movement discovery involving solo and group movement experiences. Improvisational exercises work to heighten the personal intuitive processes, the kinesthetic sense, and spatial and temporal awareness, allowing for individual ongoing discovery of potential movement resources for performance and choreography.

DANC 225. Dance History: Ancient Civilization to Early 1900s (3). General education further study course. Overview of dance history emphasizing the Western tradition in social, cultural, and concert dance forms from ancient civilizations to early 1900s, dance in the Americas, and the origins and development of ballet.

DANC 227. Mime/Physical Theatre I (3). An introductory course in crafting non-verbal theatre to create conceptual statements, short plays, and abstract movement art. Student experiences gesture, isolations, flexibility, strength, emotional expression, genuine acting, and fundamental mime theatre skills to see the range and possibilities in communicating non-verbally. Enhances both acting and dancing skills.

DANC 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: DANC 235 and/or instructor’s consent.

DANC 235. 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.

DANC 240. Tap I (3). Introduces the principles of tap dancing including rhythm, clarity of sound, syncopation, and weight shift.

Upper-Division Courses

DANC 301. Modern Dance II (2–3). Continuation of DANC 201 emphasizing movement phrases. Intermediate level. Repeatable for credit. Prerequisite: instructor’s consent or by audition.

DANC 305. 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. Corequisite: appropriate-level modern dance or ballet technique class required.

DANC 310. Ballet II (2–3). Continuation of DANC 210. Intermediate level. Repeatable for credit. Prerequisite: instructor’s consent or by audition.


DANC 320. Dance Performance (1). Cross-listed as MUSP 211U, 411U, 711U, THEA 180E, 380E, 590E. Wichita Contemporary Dance Theatre, senior and/or choreography concerts, musical theatre, or outside performances approved by dance faculty. May be repeated for credit. Prerequisite: audition.

> DANC 325. Dance History: 20th and 21st Centuries (3). General education further study course. Focuses on the development of modern and contemporary dance of the 20th and 21st centuries in the Western theatrical tradition. Topics include: early modern forerunners and pioneers, the evolution of contemporary ballet, post-modern dance, new dance and the impact of technology and fusion dance forms.

DANC 330. Musical Theatre Dance II (3). Continuation of DANC 230 and further refinement of musical theatre dance styles. Emphasizes knowledge of past and present renowned Broadway choreographers. Integrates original choreography into coursework as well as performance methods. Repeatable for credit. Prerequisite: DANC 230 and/or instructor’s consent.

DANC 335. Jazz II (3). Continuation of DANC 235 at intermediate level. Repeatable for credit. Prerequisite: instructor’s consent or by audition.

DANC 340. Tap II (3). Continuation of DANC 240. 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: DANC 240 and/or instructor’s consent.

DANC 355. Dance Technology & Production (3). A laboratory course that explores the merging of dance and technology through theory and design. Focus is on the use of current technology for the creation of dance production elements, promotional materials, performance documentation, and portfolio creation.

DANC 360. Dance Practicum (1). Cross-listed as THEA 380. Practical training in the organization, presentation and technical aspects of production. May be organized in the following areas: design and construction of scenery, costumes, or properties; the design, execution and cuing of stage lighting; stage makeup and sound; design and construction of costumes for dancers; the organization and practice of theatre management; and performance. May be repeated once for credit.

DANC 401. Modern Dance III (3). Continuation of DANC 301. Upper-intermediate level. Repeatable for credit. Prerequisite: instructor’s consent or by audition.

DANC 405. Choreography II (3). Further work in improvisation and composition. Study of form in composition. Culminates in a performance of solo works, duets, and small groups for an invited audience. Prerequisite: DANC 305. Corequisite: appropriate-level modern dance or ballet technique class.

DANC 410. Ballet III (3). Continuation of DANC 310. Upper-intermediate level. Repeatable for credit. Prerequisite: instructor’s consent or by audition.

DANC 415. Dance Kinesiology (3). Introduces principles of kinesiology for dance. Includes anatomy, physiology, and beginning concepts in the body therapies and movement analysis. Stresses structural and neuromuscular analysis of the human body as it responds to the demands of dance.

DANC 435. Jazz Dance III (3). Continuation of DANC 335 at a higher level of technical skill. Includes advanced kinetic memory, flexibility, isolation, sophisticated syncopation, and reflex. Prerequisites: DANC 235, 335, and/or instructor’s consent.

Courses for Graduate/Undergraduate Credit

DANC 501. Modern Dance IV (3). Advanced level. Continuation of DANC 401. Emphasizes professional technique and performance quality. Repeatable for credit. Prerequisite: instructor’s consent or by audition.

DANC 505. Choreography III (3). Focuses on the choreographic process. Students create choreographic studies for more than one dancer using 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: DANC 405. Corequisites: appropriate level modern dance or ballet technique class.

DANC 510. Ballet IV (3). Continuation of DANC 410. Advanced level. Emphasizes professional technique and performance quality. Repeatable for credit. Prerequisite: instructor’s consent or by audition.

DANC 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: DANC 401 or 410.

DANC 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 DANC 505 with instructor’s consent. Corequisites: appropriate level technique class, senior standing.

DANC 685. 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 to choreographing an ensemble of 30 dancers/singers. Includes interpreting the score and script for dance, staging non-dancers, and other projects to develop the craft of choreography for the musical stage. Prerequisites: DANC 330 or instructor’s consent.

DANC 690. Special Topics in Dance (1–6). For individual or group instruction. Repeatable for credit with departmental consent.

Theatre (THEA)

Theatre offers a broad academic program, balanced by the extensive production schedule of the university theatre—Mainstage and Second Stage. 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 theatre, 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/speech and theatre secondary licensure, 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 Emphasis

A minimum of 82 hours, including THEA 143, 180, 221, 222, 241, 243, 244, 253, 254, 272, 342, 345, 359, 380, 450, 455, 623, 624, 643, 651, 728; with 3 hours chosen from the following: THEA 218, DANC 201, DANC 210; and 8 hours chosen from the following: THEA 516, 517, 559, 590, or 675.
Technical Theatre and Design Emphasis

A minimum of 82 hours, including ARTF 145, THEA 143, 180, 243, 244, 253, 254, 272, 300, 344, 345, 359, 380, 450, 451, 544, 546, 623, 624, 647, 649, 653, 657, 728; with 5 hours chosen from the following: THEA 375 or 675; and with 5 hours chosen from theatre electives.

Musical Theatre

Housed in the School of Performing Arts, and in collaboration with the School of Music, the BFA in musical theatre is an intensive, interdisciplinary, performance-oriented major. The program offers equal emphasis in music, theatre and dance skills. Career counseling and an understanding of the business is emphasized. Students interested in musical theatre as a profession will gain the training and techniques needed to succeed in this demanding and competitive career.

This degree requires a minimum of 92 hours in three disciplines: 27 credits in theatre, 28 credits in music, 27 in dance, and 10 in interdisciplinary courses. Theatre courses include: THEA 243, 254, 342, 610, 643; any two of the following: THEA 244, 253, 272 or 345; and any two of the following: THEA 222, 375/675, or 651. Dance courses include: 235, 335, 240, 340, 201, 210, 310, 230, and 330. Music requirements include: MUSA 113P, 114P, 232Y, 432Y; MUSP: 212F, 340; and MUSC: 127, 128, 129, 130. Interdisciplinary courses include: THEA 180E, 330, 380E, 530, 555, 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 either THEA 623 or 624 as a fine arts further study course. The total needed for graduation is 135 credits.

Incoming students with previous training in dance will be assessed to determine appropriate class level. With approval from instructors, those with prior training may substitute upper division courses for entry level classes. Credit hours must still total 27.

Students with prior piano skills may take a proficiency exam and test out of piano class.

Musical theatre majors must audition for all department musicals, including Mainstage and Second Stage. Students receiving scholarships are required to perform as cast. All majors must obtain department approval prior to performing off campus. Permission is granted on a case-by-case basis. Although students are encouraged to obtain professional experience and credits, this may not be at the expense of the musical theatre program. This rule is also intended to ensure that students gain technique rather than reinforce inadequate training. With instructor's consent, students not cast in department musicals are encouraged to audition for roles and internships at the many professional and community theatres that flourish in Wichita. Majors are encouraged to audition for, and participate in theater, dance and opera productions, as well as musicals.

As part of the required Senior Project (THEA 555) capstone course, all majors present a senior concert to include 30 minutes of diverse material staged and performed by the student, determined in consultation with the musical theatre faculty. Students are also required to submit a paper, which includes a written analysis and description of the framework, compositional development, analysis of rehearsal process and production, and conclusions about the experience. These materials are submitted to the musical theatre faculty for grading. The faculty seeks to produce graduates who will be competitive in the professional performing world.

Teacher Education Licensure in Speech and Theatre Emphasis

A minimum of 46 hours in Speech and Theatre, including COMM 130, 325, 430, 535, 611, and 750; THEA 359, 559 or 610, 244, 253, 345, 451, 623 or 624, 728, and 218, 241, 385 or 559; and 40 hours in the Professional Education Sequence, Core I and II. The total needed for graduation is 124 credits.

Bachelor of Arts in Theatre

A minimum of 43 hours in theatre, including the following required classes: THEA 221, 243, 254, 359, 623, 624, 728, and 3 hours of Theatre Practicum with at least 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, 6 hours of which must be upper-division. Candidates for the BA degree may successfully complete 111 or 112 of a single foreign language, plus 5 additional hours in the same foreign language or 111 and 112 in two foreign languages. Other foreign language experience or high school foreign language study at the rate of one high school unit (one year) for each college semester may apply toward the required proficiency (15 credit hours). Candidates for the BA degree must complete 24 hours of electives outside the major.

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 143. The Art of the Theatre (3). General education introductory course. An introduction to the theatre as an art form emphasizing critical appreciation from the viewpoint of the audience.

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 as DANC 320 and MUSP 211U. An interdisciplinary practicum class for students cast in a musical theatre production. Admission is by audition. Students gain rehearsal and performance experience in a Mainstage production with orchestra. Rehearsals are in the evenings for 6-10 weeks. Repeatable for credit.

>THEA 200. 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, talkbacks 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 historic 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, his or her sense of stage presence, and ability to explore basic components of playtexts.

>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 arr. 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. arr. Introduces principles of costume design and construction. Touches 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 present day. Explores the collaboration of composers, directors, choreographers, and performers that make this a uniquely American art form.

THEA 272. Stage Management (3). Introduces students to the practice of stage management. Students study basic functions and aspects of stage management in preproduction, rehearsal and performance phases. Focuses on practical exercises, specific skills, communication strategies and problem-solving techniques in stage management with emphasis on organization, documentation, and dissemination of information. 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. Prerequisites: THEA 244 and ARTF 145.

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 understanding of material in recital circumstances. Prerequisites: THEA 243, 244, 272 or departmental consent.

THEA 345. Stage Lighting (4). Lab. arr. 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; I. arr. Basic theories and principles of stage directing and problems of producing the play with practical experience gained by use of the project methods. Prerequisites: 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). Cross-listed as DANC 360. Practical training in the organization, presentation and technical aspects of production. May be organized in the following areas: design and construction of scenery; costumes, or properties; the design, execution and cueing of stage lighting; stage makeup and sound; design and construction of costumes for dancers; the organization and practice of theatre management; and performance. May be repeated once for credit.

THEA 380E. Musical Theatre Performance (1). Cross-listed as DANC 320 and MUSP 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 413. President Teaching Secondary Speech and Theater (2). Allows 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: C/111, 320, and 321; CESP 334 and 433; and an appropriate ISAM course.

>THEA 450. Contemporary Theatre and Drama: Topics (3). General education further study course. Investigates the major developments and directions in theatre and drama since WWII. 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 452. Instructional Strategies, Assessment, and Management (ISAM): Secondary Speech and Theatre (3). Addresses concepts and skills related to classroom instruction, management, and assessment or adaptations for specific students for secondary education. Prerequisites: THEA 218, 241, 385, or 559.

THEA 453. Student Teaching Seminar: Secondary Speech and Theatre (1). Allows 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 for a designated period of time during the semester. Prerequisites: an appropriate ISAM course, prestudent teaching, CESP 433. Corequisite: appropriate student teaching seminar.

THEA 455. Senior Jury (1). For the graduating student in the performance track of the BFA in performing arts/ theatre program. Requires a performance of material in recital circumstances. Prerequisite: senior standing.

THEA 471. Student Teaching Secondary Speech and Theater (11). Allows 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 for a designated period of time during the semester. Prerequisites: an appropriate ISAM course, prestudent teaching, CESP 433. Corequisite: appropriate student teaching seminar.

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: junior 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
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. Arr. means arranged time.
The College of Health Professions was established in 1970. Programs of study are offered in communication sciences and disorders, dental hygiene, health services management and community development, medical technology, nursing, physical therapy, and physician assistant. The primary emphasis of the college's health professions programs is the preparation of entry-level health professionals. Additionally, the college provides such services as continuing education and graduate education for health professionals.

The curricula of the health professions programs build upon a foundation of courses from the liberal arts and sciences, education, health sciences, and business. In addition to the on-campus academic experience, health professions students learn in clinical settings as they care for patients and interact with clients of the health care system. All clinical programs are dependent upon the outstanding health care facilities within Wichita and surrounding areas.

Programs in the college are accredited through the following agencies: the Council on Academic Accreditation of Audiology and Speech-Language Pathology of the American Speech-Language-Hearing Association, the Commission on Dental Accreditation of the American Dental Association, the Commission on Accreditation in Physical Therapy Education of the American Physical Therapy Association, Commission on Collegiate Nursing Education, Kansas State Board of Nursing, the National Accrediting Agency for Clinical Laboratory Sciences, and Accreditation Review Commission on Education for the Physician Assistant.

Clinical Learning
As noted above, learning in clinical settings is an important aspect of programs of study in the College of Health Professions. Many health care facilities require information on students engaged in clinical learning opportunities, including, but not limited to: verification of name, address and social security number, personal health information, drug and alcohol testing, criminal background checks, verification of education, listing on any registered sex offender lists, listing on the U.S. Office of Inspector General’s Excluded Individual’s list, and listing on the U.S. General Services Administration’s Excluded Parties List. While the College of Health Professions will assist students in obtaining and gathering the information required by a health care facility, the cost of obtaining such information must be assumed by the student. What information will be required to permit the student to participate in a clinical setting learning experience will depend upon the respective health care facility. If a student is unable to fulfill the clinical experiences required by the program of study, the student may be unable to matriculate and/or graduate.

Essential Functions/Technical Standards
Essential functions/technical standards define the attributes that are considered necessary for students to possess in order to complete their education and training, and subsequently enter clinical practice. These essential functions/technical standards are determined to be prerequisites for entrance to, continuation in, and graduation from a student’s chosen discipline in the WSU College of Health Professions.

Students must possess aptitude, ability, and skills in five areas: 1) observation; 2) communication; 3) sensory and motor coordination and function; 4) conceptualization, integration, and quantification; and 5) 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
Degrees & Certificates Offered

Undergraduate

Of the programs offered at the undergraduate level, six lead to bachelor’s degrees—communication sciences and disorders, dental hygiene, health services management and community development, medical technology, health sciences, and nursing.

Graduate

Three programs lead to the master’s degree—communication sciences and disorders, nursing, and physician assistant. Four programs lead to the doctoral degree—physical therapy, audiology, nursing, and communication sciences and disorders. Admission to all of these programs requires a bachelor’s degree and the fulfillment of additional requirements.

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, pediatrics, 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. (Contact the School of Nursing for the latest information.) Role development in education, informatics, and administration is available. Post-master’s (graduate) certificates are also offered.

An entry-level doctoral program (DPT) 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.

An entry-level master’s program (MA) is offered in communication sciences and disorders. The program prepares its graduates to practice as speech-language pathologists in clinics and hospitals, the public schools, rehabilitation centers, or private practice. With an undergraduate preprofessional major, students can typically complete the program in two years of full-time study (including summers). Graduates are eligible to apply for Kansas licensure and certification by the American Speech-Language-Hearing Association.

An entry-level doctoral program (AuD) is offered in audiology. The program prepares its graduates to practice as audiologists in clinics and hospitals, the public schools, rehabilitation centers, or private practice. With an undergraduate preprofessional major, students can typically complete the program in four years of full-time study. Graduates are eligible to apply for Kansas licensure and certification by the American Speech-Language-Hearing Association.

The Doctor of Nursing Practice (DNP) is an advanced degree program and prepares nurses at the highest level of nursing practice. The DNP program is aimed at highly motivated, intelligent registered nurses who want advanced practice and leadership skills for the rapidly changing health care system. The DNP graduates provide leadership in their application, translation, and dissemination of evidence-based practice to improve health care. Students learn determinants of health, organizational systems, and leadership in health care systems, health policy and politics, and advanced practice in a specialization (family nurse practitioner, acute care nurse practitioner, pediatric nurse practitioner, psychiatric mental health nurse practitioner, adult health and illness clinical nurse specialist, or nursing administration and executive nurse leadership*). Students participate in intense advanced clinical practice courses and complete a practice application-oriented final DNP project with expert faculty members. There are two entry points for the DNP: post-baccalaureate or post-master’s. Post-baccalaureate graduates are eligible to apply for state Advanced Registered Nursing Practitioner (ARNP) status and the appropriate national certification examination in their specialization. Post-master’s graduates enter the program with ARNP and national certification.

*Contact the School of Nursing graduate program for latest information.

The Doctor of Philosophy in communication sciences and disorders program prepares its graduates to be scholar-scientists in research and teaching. Individualized programs of study, mentoring by nationally- and internationally-recognized faculty, and specialized practica are provided to help students develop optimal research, teaching, and professional leadership skills. Graduates must acquire a substantial mastery of scientific knowledge and demonstrate the ability to use that knowledge independently and creatively.

*Contact the School of Nursing for the latest information.

Certificates

The College of Health Professions offers the following certificates: educational interpreter development certificate program: signing exact English; graduate certificate in public health; post-master’s graduate certificate options in nursing include acute care nurse practitioner, adult clinical nurse specialist, family nurse practitioner, nursing* and health care systems administration, pediatric clinical nurse specialist, pediatric nurse practitioner, and psychiatric-mental health nurse practitioner.

*Contact the School of Nursing for the latest information.

Policies

Undergraduate Admission

Degree-bound students who select a health professions major are admitted to the College of Health Professions as pre-profession majors in one of the degree programs offered, or as a prehealth profession undecided. However, admission to the college as a preprofession 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.

Students may apply for more than one CHP undergraduate program concurrently; however, once the student has been accepted for a position in one CHP program and begins coursework in that program, that student will be withdrawn
from further consideration in other CHP programs, unless the departments involved consent. On completion of the CHP program in which she or he is enrolled, or after withdrawal from a program, she or he may apply or reapply to another CHP program.

NOTE: Admission requirements for each of the health professions programs includes a grade point average that must be achieved before the student can apply for admission to the program. For the baccalaureate in nursing and communication sciences and disorders, the required GPA is 2.750; for the baccalaureate in medical technology, and dental hygiene, the required GPA is 2.500; and for the baccalaureate in health services management and community development it is 2.250. For students planning to enter the graduate programs in communication sciences and disorders, nursing, physical therapy or physician assistant, the minimum GPA for admission is 3.000.

Required grade point average for College of Health Professions undergraduate premajors: Preprofessional majors in health services management and community development must maintain an overall cumulative and WSU grade point average of at least 2.250. Preprofessional majors in medical technology, communication sciences and disorders, and dental hygiene must maintain an overall cumulative and WSU grade point average of at least 2.500; preprofessional majors in nursing must maintain a grade point average of at least 2.750; preprofessional majors in physical therapy and physician assistant must maintain a grade point average of at least 3.000. 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 skills courses appropriate to their intended degree (associate or baccalaureate) within their first 48 credit hours of coursework at WSU, each with a grade that generates 2.000 or more credit points per credit hour.

Transfer students who are undecided or who want a premajor of health services management and community development must present an earned GPA of 2.250 or higher on a 4.000 scale for all prior college work. Those wanting a premajor of communication sciences and disorders, medical technology, or dental hygiene must present an earned GPA of 2.500 or higher, for nursing a GPA of 2.750, and for physical therapy or physician assistant a GPA of 3.000, also on a 4.000 scale, for all prior college work.

Limitations on Student Credit Hour Load
Preprofessional majors in the College of Health Professions who are 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 adviser in the CHP Advising Student Services office. Once students are admitted into their major degree programs they will be subject to limitations and requirements set by each program. See the individual majors section of this Catalog and the Graduate Catalog for specific information.

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 CHP Advising Student Services in 402 Ahlberg Hall for all preprofessional students. Once students are admitted into their degree program, academic advising is provided by the program faculty. Please call (316) 978-3304 to schedule an appointment.

Progression
Progression as an undecided health professions premajor or as a premajor in health services management and community development requires that the student maintains an overall cumulative and WSU GPA of 2.250 or higher. Progression as a preprofessional major in communication sciences and disorders, medical technology, or dental hygiene requires that the student maintains an overall cumulative and WSU GPA of 2.500 or higher, for nursing a GPA of 2.750 or higher, and for physical therapy or physician assistant a GPA of 3.000 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 professional programs, progression in courses offered in the program requires students to earn a grade of S, Cr, or with a grade that generates 2.000 or more credit points per credit hour 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 with a grade that generates 2.000 or more credit points per credit hour 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 or 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
Preprofessional majors are placed on probation for the next semester in which they enroll if they have attempted at least 6 hours at WSU and their overall cumulative or WSU grade point average falls below 2.250 for premajors who are undecided health professions, or health services management and community development; or for premajors in communication sciences and disorders, medical technology, or dental hygiene, below an overall cumulative or WSU grade point average of at least 2.500; for nursing a GPA of 2.750; or for physical therapy or physician assistant a GPA of 3.000.

Students will remain on probation even though they earn the required grade point average or higher, in the semester 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.

Preprofessional students on probation may not enroll for more than 12 credit hours in a 16-week semester, or 5 credit hours in a summer session, excluding 1 hour of physical education. Exception to this limitation may be made on the recommendation of a student's adviser with the approval of the dean of the college.

Preprofessional students will be dismissed at the end of any semester on probation if they fail to earn a semester grade point average at or above the minimum required, and have a cumulative or overall WSU grade point average also below the minimum required. Students are not academically dismissed at the end of a
semester unless they began that semester on academic probation.

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 affiliating health facilities for clinical education will be subject to dismissal from their professional program for failure to comply with the rules, regulations, or professional standards governing that facility.

Exceptions
Students may petition the program, college, or university for exception to any requirement. Students are required to discuss all petitions with their college/ program adviser prior to submission of the petition. Petitions may or may not be approved by the body to whom the petition is made.

Graduation Requirements
All health professions students who are pursuing a bachelor’s degree must meet general university requirements and fulfill the course requirements specified in the curriculum of the department offering the degree.

A minimum of 30 credit hours in coursework in residence at WSU is required for all students seeking a bachelor’s degree at WSU. In addition, these students must also complete all university, college, and departmental requirements for the degree being sought including a minimum of 45 hours of upper-division courses. Completion of university courses is counted 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 Professions 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; and
2. Meet any other eligibility requirements stated by the particular program.
(See the appropriate program's section in the Catalog.)

Exceptions to these requirements may be granted to non-majors by the chairperson/director of the program offering the course.

Students should check with their program adviser regarding eligibility and prerequisite requirements for this type of examination. Transcripts will identify the courses and credits received by students taking equivalency/competency examinations. Fees are assessed, in advance, for the administration of the examinations.

Cooperative Education
The College of Health Professions is one of the participating colleges in the university’s cooperative education program. This program is designed to provide off-campus paid employment experiences that integrate, 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 adviser 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 enrollment. To enroll in the program or for more information, students should contact the cooperative education office or a College of Health Professions adviser.

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 students. The clinical affiliates include a wide variety of hospitals, long-term care facilities, public schools, private 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 communicate with individual programs about specific requirements.

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.

Degree Requirements and Course Listings

School of Health Sciences
The School of Health Sciences offers programs leading to the Bachelor of Arts in communication sciences and disorders, the Bachelor of Science in dental hygiene, the Bachelor of Science in health services management and community development, and the Bachelor of Science—medical technology. In addition, the Associate of Science is awarded in dental hygiene.

The School of Health Sciences offers the Master of Arts in communication sciences and disorders, Master of Public Health, Doctor of Physical Therapy, Master of Physician Assistant, Doctor of Audiology, and PhD in communication sciences and disorders degrees. For more information about the graduate degree programs, refer to the WSU Graduate Catalog.

Specific requirements for each undergraduate degree are described under the appropriate listing below. In addition, contact should be made with CHP Advising Student Services at (316) 978-3304 to be advised of any changes in requirements.

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 211 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 health professionals 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 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, parental 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 710. Applied Clinical Pharmacology (3). Discusses clinical applications of selected drug classes commonly used in the primary care setting as well as the follow-up management of common chronic diseases. Discusses pharmacological management as to pharmacokinetics, dosages, 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: HS 301, admission to graduate health professional program or PA professional program, or instructor’s consent.

HS 711. Pharmacological Management of Acute and Chronic Diseases (3). Discusses the clinical application of specific categories of drugs used in the treatment of several common acute and chronic diseases. Presents pharmacokinetics, mechanisms of action, dosages, side effects, and monitoring parameters of medications as they are used in these diseases and in various patient populations. Facilitates clinical application of this knowledge through case studies, class discussions, and reviews of the latest medical literature. Prerequisites: admission to graduate nursing program and department consent or completion of HS 710 and admission to PA professional program.

HS 720. Neuroscience (3). 3R; 2L. Integration of neuroanatomy and neurophysiology of the central and peripheral nervous systems with human functional abilities. Prerequisite: HS 700 or program consent.

Health Professions—General (HP)

Lower-Division Courses

HP 101. An Introduction to the University (3). Assists students in acquiring the academic and life skills essential to become a successful college student. Provides information, resources, and support to promote opportunities for success. Introduces and uses resources within the university and the community. Recommended for all degree-bound students entering WSU for the first time.

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 alum. 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 work place. Seminars taught by WSU faculty/staff provide in-depth information regarding stress management, corporate communication, job search skills, and networking. Graded C/NCR. Prerequisites: 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. Corequisite: 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 environment. 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 370. 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.

Communication Sciences and Disorders (CSD)

The department of communication sciences and disorders provides academic and clinical education for students at Wichita State University who wish to work with children and adults who have communication disorders. The undergraduate program offers broad, comprehensive, and preprofessional preparation for specialized training, which is offered at 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, or to engage in private practice. With an undergraduate, preprofessional major, students completing the graduate program will be eligible to apply for certification by the American Speech-Language-Hearing Association and for Kansas licensure. The PhD in communication sciences and disorders prepares individuals to function professionally as independent clinicians, as teacher-scholars in an academic setting, or as program administrators.

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.

**Undergraduate Major**
The preprofessional, undergraduate major places primary emphasis on the general area of communication sciences and disorders. The major, consisting of 51–52 hours, involves a combined curriculum in speech-language pathology and audiology. Students should work closely with advisers to ensure proper course selection for certification and degree. A check sheet of requirements is available from the College of Health Professions and the department office, 401 Ahlberg Hall.

All students must have coursework in biological sciences, physical sciences, social/behavioral sciences, and mathematics to meet ASHA certification and Kansas licensure requirements. Consult an adviser for appropriate coursework.

**Admission Requirements**
Students should request application materials for admission to the major in the CSD department, or obtain application materials online, prior to enrolling in their last semester of prerequisite courses, typically in the spring semester of the sophomore year. The application deadline for fall semester admission is April 1st and October 1st for spring semester admission.

Admission requirements include:
1. The completion of the following courses (15 credit hours) with a grade that generates at least 3.000 credit points per credit hour in each course: CSD 111, 210, 301, 302, 304, 304L, 306, and 306L. Students can be currently enrolled in those courses offered during the semester in which the application is made;
2. An overall GPA of 2.750; and
3. An application fee of $30 (pending approval).

**Curriculum:**

<table>
<thead>
<tr>
<th>Course</th>
<th>Hrs.</th>
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<tbody>
<tr>
<td>CSD 111 Disorders of Human Communication</td>
<td>3</td>
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<tr>
<td>CSD 210 Basic Physics of Sound</td>
<td>2</td>
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<tr>
<td>CSD 251 Auditory Development and Disorders</td>
<td>2</td>
</tr>
<tr>
<td>CSD 260 Signing Exact English I or II</td>
<td></td>
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<tr>
<td>CSD 270 American Sign Language I</td>
<td>3</td>
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<tr>
<td>CSD 301 Basic Anatomy and Physiology of the Mechanism</td>
<td>2</td>
</tr>
<tr>
<td>CSD 302 Basic Anatomy and Physiology of the Auditory System</td>
<td>2</td>
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<tr>
<td>CSD 304 Early Language Development</td>
<td>3</td>
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<tr>
<td>CSD 304L Early Language Devel. Lab</td>
<td>0</td>
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<tr>
<td>CSD 306 Applied Phonetics</td>
<td>3</td>
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<tr>
<td>CSD 306L Applied Phonetics Lab</td>
<td>0</td>
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<tr>
<td>CSD 351 Intro to Auditory Assessment</td>
<td>3</td>
</tr>
<tr>
<td>CSD 416 Intro to Language Disorders</td>
<td>3</td>
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<tr>
<td>CSD 417 Intro to Lang. Disorders Lab</td>
<td>1</td>
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<tr>
<td>CSD 425 Intro to Clinical Processes</td>
<td>1</td>
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<tr>
<td>CSD 514 Speech-Sound Disorders</td>
<td>3</td>
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<tr>
<td>CSD 515 Speech-Sound Disorders Lab</td>
<td>1</td>
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<tr>
<td>CSD 517 Communication in Aging</td>
<td>3</td>
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<tr>
<td>CSD 518 Deaf Culture</td>
<td>3</td>
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<tr>
<td>CSD 519 Genetic &amp; Organic Syndromes</td>
<td>3</td>
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<tr>
<td>CSD 521 Genetic &amp; Organic Syndromes Lab</td>
<td>1</td>
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<tr>
<td>CSD 605 Neuroscience of Speech &amp; Language Basic Processes</td>
<td>4</td>
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<tr>
<td>CSD 706 Acoustic &amp; Perceptual Phonetics</td>
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<tr>
<td>CSD 764 Aural Rehabilitation</td>
<td>3</td>
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<tr>
<td><strong>Total</strong></td>
<td><strong>51–52</strong></td>
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<tr>
<td>CESP 704 Statistics (recommended tool)</td>
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**Clinical Certification**
The communication sciences and disorders undergraduate major may be applied toward certification by the American Speech-Language-Hearing Association (ASHA) and licensure by the state of Kansas upon completion of the required graduate program. ASHA certification requires a master’s degree, with major emphasis in speech-language pathology. A professional doctorate degree is required for certification in audiology.

**Honor Program**
An honors track is available in the CSD department. Students should consult the honors program criteria for details and consult with their academic adviser regarding application.

**Concentration in Deafness and Hard of Hearing (D/HH)**
The concentration in D/HH prepares students to work with individuals who are deaf or hard of hearing. The purpose is to provide a degree path for undergraduate students who may choose to pursue careers in sign language interpreting and those entering the fields of speech-language pathology (SLP) and audiology (AUD) who seek to work with populations who are deaf or hard of hearing. A student with the concentration in deafness and hard of hearing would have completed the necessary undergraduate requirements for entry into graduate education in either SLP or AUD with the additional foundation in deafness and hearing impairment.

This program of study emphasizes the importance of communication in all modalities: signed, spoken, and written. As such, students study typical and atypical communication, audition, and amplification, aural rehabilitation, signed language systems, and speech-language habilitation. With an undergraduate degree in communication sciences and disorders and a concentration in deafness and hard of hearing, students are prepared to advance their skill in sign language interpreting, if they so choose. The emphasis of this program is on understanding, embracing, and accommodating diversity and valuing the contributions of individuals with sensory differences as vital members of every society.

The undergraduate major in CSD with a concentration in D/HH requires a total of 56 credit hours. Students wishing to enroll in this concentration must meet the admission requirements for the undergraduate major.

**Undergraduate Minor**
A minor in communication sciences and disorders consists of 18 hours. The following courses are recommended for a minor unless other arrangements are made: CSD 111, 210, 301, 302, 304, 304L, 306, 306L, and 518.

**Special Certificate Program**
The department of communication sciences and disorders 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 working with individuals who are deaf or hard of hearing further their knowledge and skills with the goal of meeting or exceeding 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 for details.

**Curriculum:**

<table>
<thead>
<tr>
<th>Course</th>
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<tbody>
<tr>
<td>CSD 111 Disorders of Human Communication</td>
<td>3</td>
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<tr>
<td>CSD 240 Intro to Deaf &amp; Hard of Hearing</td>
<td>2</td>
</tr>
<tr>
<td>CSD 260 Signing Exact English I</td>
<td>2</td>
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<tr>
<td>CSD 330 Educational Interpreting</td>
<td>2</td>
</tr>
<tr>
<td>CSD 340 Pragmatic Processes &amp; Analysis in SEE</td>
<td>3</td>
</tr>
<tr>
<td>CSD 345 Refining Interpreting Techniques in SEE</td>
<td>3</td>
</tr>
<tr>
<td>CSD 360 Signing Exact English II</td>
<td>2</td>
</tr>
<tr>
<td>CSD 380 Practicum in Signing Exact English I</td>
<td>1</td>
</tr>
<tr>
<td>CSD 381 Practicum in Signing Exact English II</td>
<td>1</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>19</strong></td>
</tr>
</tbody>
</table>
Lower-Division Courses

CSD 111. Disorders of Human Communication (3). Introduction to communication sciences and disorders and the ways society views people with communication disorders. Explores media and literature representations of communication disorders through movie and television reviews, personality profiles of well-known people, and fiction. Students gain an understanding of the various types of communication disorders and learn how to become advocates for children and adults with communication disorders and their families.

CSD 210. Basic Physics of Sound (2). Introductory course in the physics of simple and complex sounds. Designed for students with an interest in speech-language pathology, audiology, or related fields. Includes usage of basic instrumentation to generate, control, measure, and record sound; solving simple acoustic problems.

CSD 240. 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 people who are 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.

CSD 251. Auditory Development and Disorders (2). Introduces the etiology, nature, and symptomology of auditory disorders and pathologies. Prerequisite: CSD 111.

CSD 260. 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.

CSD 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.

Upper-Division Courses

CSD 301. Basic Anatomy and Physiology of the Speech Mechanism (2). Introductory course in basic anatomy and physiology of speech with an emphasis on respiration, phonation, resonance, and articulation.

CSD 302. Basic Anatomy and Physiology of the Auditory System (2). Studies basic anatomy of the outer, middle and inner ears and the auditory nervous system. Addresses fundamental knowledge of hearing mechanisms based on function of each part of the system.


CSD 304L. Early Language Development Lab (0). Development of language traced from birth to early school-age. Evaluation of various acquisition theories in light of current psychological and linguistic thought. Emphasizes the development of linguistic categories: phonology, morphology, syntax, semantics, and pragmatics. Lab required for reflective observation and analysis of various linguistic categories of typically developing children. Prerequisite: CSD 111. Corequisite: CSD 304.

CSD 306. Applied Phonetics (3). Cross-listed as LING 306. Identification, production, and categorization of phonemes. Practice in phonemic and phonetic transcriptions of words using the International Phonetic Alphabet (IPA). Introduction to typical phonological acquisition and variations in speech production related to connected speech, cultural/linguistic diversity, and children's speech sound disorders. Lab required for reflective observation and analysis of developmental phonetics and variance due to disorders and linguistic differences. Prerequisite: CSD 301. Corequisite: CSD 306L.

CSD 306L. Applied Phonetics Lab (0). Identification, production, and categorization of phonemes. Practice in phonemic and phonetic transcriptions of words using the International Phonetic Alphabet (IPA). Introduction to typical phonological acquisition and variations in speech production related to connected speech, cultural/linguistic diversity, and children's speech sound disorders. Lab required for reflective observation and analysis of developmental phonetics and variance due to disorders and linguistic differences. Prerequisite: CSD 301. Corequisite: CSD 306L.

CSD 330. 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: CSD 240 and 260.

CSD 340. Pragmatic Process and Analysis in SEE (3). Introduces the pragmatic process required of the interpreter to analyze, organize, and prioritize information from a source for its accurate conveyance. Focuses on diagnosing areas causing breakdowns of interpreting, followed by strategies for improvement of skills. Prerequisites: CSD 240, 260, 330, 360, 380, and 381.

CSD 345. Refining Interpreting Techniques in SEE (3). Provides strategies for improving vital skills in expressive and receptive interpreting. Addresses such issues as reading signs, non-manual markers, and grammar, as well as application of lag time and prioritization for proper word and grammar choices in English. Also addresses interpretation of cultural information and effective public speaking. Prerequisites: CSD 240, 260, 330, 360, 380, and 381.

CSD 351. Introduction to Auditory Assessment (3). History and scope of the field. Surveys audiology threshold testing procedures, immittance audiometric interpretation. Prerequisite: CSD 251 or instructor's consent.

CSD 360. Signing Exact English II (2). An advanced class in the theory and use of Signing Exact English (SEE) as a means of communication with the hearing impaired. Emphasizes vocabulary and interpreting skills. Prerequisite: CSD 260.

CSD 370. American Sign Language II (3). Increases vocabulary and speed of the use of ASL. Focuses on a greater fluency in expressive and receptive skills. Develops intermediate conversational skills. Prerequisite: CSD 270.

CSD 380. Practicum in Signing Exact English I (1). Provides students with observation of skilled interpreters in various educational K–12 settings throughout the semester. Opportunities to discuss with the interpreters their responsibilities and roles in providing communication access to students in and outside of the classroom in school-related activities.

CSD 381. Practicum in Signing Exact English II (1). Serves to define, examine, and practice the separate components of sign and document practice within the realm of interpreting in educational settings. Prerequisite: CSD 380.


CSD 417. Introduction to Language Disorders Lab (1). Laboratory experience complimenting the topics covered in CSD 416. Includes classroom and clinic observations, language sampling and analyzing techniques and experiences. Prerequisites: CSD 304, 304L, or instructor's consent. Corequisite: CSD 416.

CSD 425. Introduction to Clinical Processes (1). Laboratory experience that provides students with an orientation to the WSU Speech-Language-Hearing Clinic environment, the opportunity to observe and assist with individuals experiencing communication challenges, and information regarding the diagnostic process with individuals experiencing communication challenges. Introduces the diagnostic process required for individuals with various communication delays and/or disorders. Prerequisites: senior standing, instructor's consent, and medical clearance.

CSD 460. Signing Exact English III (2). Increases expressive, receptive, and voiced vocabulary in Signing Exact English and the use of visual features of signed languages. Production techniques, self- and peer-assessments, and skills pursuant to Kansas standards for interpreters in educational settings are applied. Prerequisite: CSD 360.

CSD 470. American Sign Language III (3). Students demonstrate expressive and receptive mastery of targeted, context-specific commands, questions, and statements in ASL and are exposed to ASL as a foreign language. Exposes students to the life and experiences of deaf people. Prerequisite: CSD 370.

CSD 480. American Sign Language IV (3). Increases vocabulary and speed of the use of ASL. Focuses on a greater fluency in expressive and receptive skills. Develops intermediate conversational skills. Prerequisite: CSD 470.
CSD 481. Cooperative Education (1–4). Allows students to participate in the cooperative education program. Offered Cr/NCr only.

CSD 490. 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.

CSD 491. Honors Research Project (1–3). Directed research project culminating in a poster presentation for the department research symposium. Prerequisite: CSD honors track program approval.

Courses for Graduate/Undergraduate Credit


CSD 515. Speech-Sound Disorders Lab (1). Laboratory experience compliments the topics covered in CSD 514 and includes classroom and clinical observations. Prerequisites: CSD 306, 306L.. Corequisite: CSD 514.

CSD 517. Communication in Aging (3). Focuses on how communication is affected by aging, what communication problems may be experienced by older persons, and what the implications are for speech-language pathologists and audiologists providing services to older persons. Explores prevention activities geared toward maintaining functional communication abilities in older adults as well as functional treatment approaches geared toward the specific communication needs of older persons. Course is appropriate for students in other fields of study.

CSD 518. 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.


CSD 520. ASL: Nonverbal Communication (3). Non-verbal way of communication which forms an integral base for communication in American Sign Language. Emphasizes the use and understanding of facial expression gestures, pantomime and body language. Role play and acting out will be required as part of this class. Prerequisite: CSD 370 or instructor's consent.

CSD 521. Genetic and Organic Syndromes Lab (1). Laboratory experience which provides students the opportunity to observe and document assessment and treatment of individuals with various communication disorders caused by syndromic and/or gene-linked conditions. Prerequisites: CSD 301, 302. Corequisite: CSD 519.

CSD 522. Deaf Heritage (2). 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.


CSD 605. Neuroscience of Speech and Language: Basic Processes (4). A consideration of basic neuroanatomy and neurophysiology necessary for understanding the representation of speech and language in the human central nervous system and of conditions resulting from neurological impairment. Prerequisite: senior standing.

CSD 655. Graduate Methods and Practicum in Auditory Assessment—SLP (2). Methods in audiological evaluation for speech and language pathology students. Discusses the proper hearing screening techniques for all age groups during a three-day pre-session seminar and practical experience throughout the semester. Addresses basic hearing aid maintenance and fitting, counseling, newborn hearing screening and intervention/prevention. Speech-language pathology students engage in practicum experiences in audiological screening and assessment as arranged. Prerequisites: CSD 351, and departmental approval.

CSD 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.

CSD 706. Acoustic and Perceptual Phonetics (3). Study of the physical patterns (acoustic) of speech sounds and the importance of these acoustic patterns to speech recognition (perception). Focuses on segmental phonemes (vowels and consonants) and on suprasegmental characteristics such as stress and intonation. Introduces different types of speech analysis techniques and discusses how they may be used to study the acoustic patterns of speech sounds. Studies how different aspects of the speech signal relate to listener perception. Prerequisites: CSD 210, 301, and 302.

CSD 710. Autism Spectrum Disorders (2–3). An overview of the characteristics and etiology of autism spectrum disorders and the knowledge needed to conduct effective communication and language assessments and develop evidence-based treatment strategies for individuals with ASD. Covers guidelines for the assessment and intervention of communication skills, including decision making for the selection of functional communication systems, structured teaching, and positive environmental supports for effective learning.

CSD 740. Selected Topics in Communication Sciences and Disorders (1–3). Individual or group study in specialized areas of communication sciences and disorders. Repeatable for credit to a maximum of 6 hours. Prerequisite: instructor's consent.

CSD 750. Workshop in Communication Sciences and Disorders (1–4). Individual or group study in specialized areas of communication sciences and disorders. Repeatable for credit to a maximum of 8 hours.

CSD 764. Aural Rehabilitation (3). Discussion and labs concerning the role of speech-language pathologists and audiologists in evaluation and treatment of hearing-impaired children, adolescents, and adults and their families. Students focus on understanding psychological, social, educational, and occupational impacts of hearing loss; and on applying a rehabilitative model, technology, individual and group therapies, and collaboration with families and professionals to help hearing-impaired persons improve or cope better with their communication problems. Prerequisite: CSD 351 or instructor's consent.

CSD 781. Cooperative Education (1–3). A work-related placement that integrates theory with a planned and supervised professional experience designed to complement and enhance the student's academic program. May not be used toward degree requirements. Repeatable for credit. Offered Cr/NCr.

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

Dental Hygiene (DH)

The Dental Hygiene Department offers the Bachelor of Science (BS) in dental hygiene for entry level students in the profession and graduates of an associate degree program.

Bachelor of Science in Dental Hygiene (Entry Level Program)

The baccalaureate entry level program in dental hygiene provides students with knowledge of the social, dental, and clinical sciences and competencies needed by the dental hygienist in contributing to the attainment of optimum oral health for individuals through the life span. The graduate is prepared for beginning positions in dental hygiene and for further study at the graduate level.

Students are admitted to the program in the junior year after completing the prerequisite courses and general education requirements. Upon completion of the degree, students are eligible to take the appropriate examinations for licensure as dental hygienists. The Wichita State University dental hygiene program is accredited by the Commission on Dental Accreditation.

Preprofessional Curriculum

Students applying for admission to the entry level baccalaureate program must have completed the prerequisite courses and general education requirements. Students should consider taking 15 hours per semester or attending summer school.


Admission to the entry level baccalaureate degree

Persons interested in the dental hygiene program should direct their inquiries to:
Dental Hygiene Department, Wichita State University, Wichita, Kansas 67260-0144. Acceptance into the College of Health Professions does not guarantee admission into the dental hygiene program. To qualify for admission to the dental hygiene program students must:
1. Be enrolled in, or admitted to, WSU;
2. Have completed, or have plans to complete, the prerequisite requirements the spring semester before beginning the program;
3. Have an overall grade point average of at least 2.750 in all courses completed and no grade lower than a grade that generates 2,000 credit points per credit hour in any of the specified required courses; and
4. Submit application materials by the established deadline.

Professional Curriculum

The following courses in the dental hygiene program are required for the entry level Bachelor of Science in Dental Hygiene. A total of 124 hours of university credit is required for graduation.

<table>
<thead>
<tr>
<th>Course</th>
<th>Hrs.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Semester 1</td>
<td></td>
</tr>
<tr>
<td>DH 311 Preclinical Dental Hygiene</td>
<td>5</td>
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<tr>
<td>DH 317 Clinical Radiology</td>
<td>4</td>
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<tr>
<td>Semester 2</td>
<td></td>
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<tr>
<td>DH 318 Oral Anatomy, Histology &amp; Embryology</td>
<td>3</td>
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<tr>
<td>DH 319 Dental Materials</td>
<td>3</td>
</tr>
<tr>
<td>DH 314 Intro to Periodontics</td>
<td>3</td>
</tr>
<tr>
<td>DH 331 Dental Hygiene Concepts I</td>
<td>3</td>
</tr>
<tr>
<td>DH 332 Dental Hygiene Clinic I</td>
<td>3</td>
</tr>
<tr>
<td>DH 334 Intro to Research in Dental Hygiene</td>
<td>2</td>
</tr>
<tr>
<td>DH 335 General &amp; Oral Pathology</td>
<td>3</td>
</tr>
<tr>
<td>HS 315 Head &amp; Neck Anatomy</td>
<td>2</td>
</tr>
<tr>
<td>Semester 3</td>
<td></td>
</tr>
<tr>
<td>DH 333 Dental Hygiene Clinic II</td>
<td>2</td>
</tr>
<tr>
<td>DH 410 Community Oral Health Management I</td>
<td>3</td>
</tr>
<tr>
<td>DH 416 Pain Management</td>
<td>2</td>
</tr>
<tr>
<td>DH 431 Dental Hygiene Concepts II</td>
<td>3</td>
</tr>
<tr>
<td>DH 432 Dental Hygiene Clinic IV</td>
<td>4</td>
</tr>
<tr>
<td>DH 440 Community Oral Health Management II</td>
<td>3</td>
</tr>
<tr>
<td>DH 470 Issues in Dental Hygiene</td>
<td>3</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 to and from the health care agencies used for clinical experiences.

Information related to special requirements is available to students at Department of Dental Hygiene, Wichita State University, Wichita, Kansas 67260-0144.

Degree Completion Bachelor of Science

The degree completion Bachelor of Science in dental hygiene is 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 adviser.

Registered dental hygienists must:
1. Submit verification of current license to practice as a dental hygienist; and
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.

Retroactive credit.

Twenty-five hours of retroactive credit in dental hygiene courses is available for non-WSU graduates of accredited dental hygiene programs. The 25 upper-division dental hygiene credits are awarded during the semester the student will graduate. Additional information may be obtained from the dental hygiene department on validating the 25 upper-division dental hygiene credits.

Course                                      | Hrs. |
---------------------------------------------|------|
Additional Basic Skills requirements:
ENGL 102 College English II                  | 3    |
Math 111 College Algebra                     | 3    |
Electives from the following categories:
Introductory fine art (1)                    | 3    |
Introductory humanities (2)                  | 6    |
Further study or issues and perspectives in
fine arts or humanities (1)                  | 3    |
Further study or issues and perspectives in
social or behavioral sciences (1)            | 3    |
Introductory natural sciences and math (1)   | 3–5  |
Further study or issues and perspectives in
natural sciences & math (1)                  | 3–5  |

Professional Curriculum

Core:

DH 420 Educational Methodology in Dental Hygiene | 3 |
DH 452 Community Dental Health Management     | 3 |
DH 468 Field Externship                       | 3 |
DH 470 Issues in Dental Hygiene               | 3 |
HMCD 310 Understanding the U.S. Health Care System | 3 |

Electives (6 hours):

DH 462 Special Projects                       | 3 |
DH 481 Cooperative Education                  | 3 |
PHE 308 Leadership in Self & Society           | 3 |
CESP 704 Intro to Educational Stats           | 3 |
HS 400 Intro to Pathophysiology               | 3 |

Lower-Division Courses

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.

Upper-Division Courses

DH 311. Preclinical Dental Hygiene (5). 3R; 7L.
Presents the basic skills involved in the delivery of dental hygiene patient care, including infection control, disease prevention, and instrumentation skills. Considers measures that can be employed to prevent oral disease and promote dental health. Laboratory instruction in instrumentation for
removal of deposits from the teeth is included. Prerequisite: program consent.

DH 314. Introduction to Periodontics (3). 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, antibiotics, and antimicrobial agents, periodontal dressing, and sutures. Emphasizes the evaluation of a periodontal case study resulting in the development of a periodontal treatment plan. Prerequisite: program consent.


DH 318. Oral Anatomy, Histology & Embryology (3). Studies tooth morphology, arrangement, function, and characteristics. Studies the development and microscopic anatomy of the oral cavity including hard and soft tissues. Emphasizes the role of morphology and embryology in the practice of dental hygiene.

DH 319. Dental Materials (3). 2R; 2L. Covers the properties, uses, management and manipulation of dental materials. Includes laboratory experience with commonly used materials and procedures that are within the scope of dental hygiene practice. Prerequisite: program consent.

DH 331. Dental Hygiene Concepts I (3). Prepares students to assess, plan, implement, and evaluate the clinical care of patients. Emphasizes oral health promotion, dental hygiene diagnosis, emergency preparation, patient communication and motivation. Explores the development of professional behaviors and skills and further development of clinical skills. Prerequisite: program consent.

DH 332. Dental Hygiene Clinic I (3). Providing patient care in a clinical setting. Stresses patient assessment, oral disease prevention, and basic instrumentation techniques. Develops patient evaluation and treatment planning skills. Prerequisite: program consent.

DH 333. Dental Hygiene Clinic II (2). Continued development of proficiency of clinical techniques emphasizing advanced periodontal instrumentation techniques. Class meets during summer presession. Prerequisite: program consent.

DH 334. Introduction to Research in Dental Hygiene (2). Introduction to the scope, format, and use of research in dental hygiene. Focuses on experimental and descriptive research methods and designs used in dental hygiene. Emphasis is given to critically evaluating research and to developing the ability to be a critical consumer of professional literature. Prerequisite: program consent.

DH 335. General and Oral Pathology (3). Surveys general pathology of tissues and organs of human anatomy. Discusses dental pathology of the teeth, dental pulp, and oral tissues with emphasis on clinical and radiographic recognition of those pathologies. 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. Student negotiates 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 350. 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 407. Ethics and Jurisprudence (3). The study of laws governing the practice of dentistry and dental hygiene as well as the economics and the ethics of the profession. Includes application of ethical principles to real-life situations.

DH 410. Community Oral Health Management I (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 in-depth study of certain aspects of dental public health such as fluoridation, epidemiology and program development. Students develop dental health education materials. Prerequisite: program consent.

DH 416. Pain Management (2) Provides the theoretical and practical knowledge necessary for management of dental pain. Focuses on mechanisms of pain, control of dental pain through the administration of topical anesthetics, infiltration, and block anesthesia; use of nitrous oxide and recognition of local anesthesia related complications and emergencies. Prerequisite: HS 301.

DH 420. Educational Methodology in Dental Hygiene (3). 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 430. Curriculum Development in Dental Hygiene Education (3). 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 431. Dental Hygiene Concepts II (3). Emphasizes developing problem solving abilities, managing patients with special needs and diverse backgrounds, and managing emergencies in the dental office. Seminar discussion of current and advanced clinical concepts as well as other topics related to the treatment of special needs patients. Prerequisite: program consent.

DH 432. Dental Hygiene Concepts III (2). Includes discussion of dental specialties and rationale for treatment prescribed by the dentist, principles of care for mentally and physically challenged and geriatric patients. Prerequisite: program consent.

DH 434. Dental Hygiene Clinic III (4). 16L. Students continue to develop competency in intermediate dental hygiene skills. Principles of periodontal techniques, such as root planning/debridement and supportive techniques are stressed. Comprehensive treatment planning and implementation of comprehensive care focus on the special needs patient along with a diverse patient population. Continued development of professionalism, management, and critical thinking skills are emphasized.

DH 435. Dental Hygiene Clinic IV (4). 16L. Opportunity to reach competency in all clinical skills focusing on the periodontal patient and pain management. Emphasis is on decision making, problem solving, critical thinking, providing treatment for an increased number of patients, and appointment and time management. Focuses on comprehensive dental hygiene care to a diverse population. Prerequisite: admission to program.

DH 440. Community Oral Health Management II (3). Includes examination of dental health delivery systems in community settings, with a focus on management of oral health care in alternative practice settings. Students evaluate dental health delivery in various community settings and identify oral health problems in a group or community. Students give presentations on dental health education. 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 410 or equivalent and HMC 310 or FHS 320.

DH 462. Special Projects in Dental Hygiene (1–3). Individual study of selected topics, didactic and/or clinical, to enhance the student's knowledge base and competencies in clinical or community dental hygiene practice.

DH 465. Research in Dental Hygiene (3). A practical approach to the application and acquisition of basic research techniques as related to community dental public health or clinical dental hygiene. Includes the study and identification of research problems, review of related literature, development of research hypotheses, and research methodology. Prerequisite: DH 462.

DH 468. Field Internship (3). Students implement and evaluate a community dental health project or a research project. This can include an area of interest or concern in community dental health or clinical dental hygiene. Prerequisite: DH 452.
Medical Technology (MEDT)/Clinical Laboratory Sciences

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, requiring 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, Affiliated Medical Services, Wichita; Hutchinson Hospital Corporation, Hutchinson; Salina Regional Medical Center, Salina; St. Catherine Hospital, Garden City; Eastern Kansas Veteran’s Regional Health Center; Grandview Hospital, Dayton, Ohio; St. Francis Medical Center, and Stormont-Vail Health Center, Topeka; Aspen Valley Hospital, Aspen, Colorado; Newman Health Center, Emporia, Kansas.

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>
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</thead>
<tbody>
<tr>
<td>Basic Skills</td>
<td>12</td>
</tr>
<tr>
<td>ENGL 101 &amp; 102 College English I and II</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>
</tbody>
</table>

Social and Behavioral Sciences | 9
PSY 111 General Psychology | 3
One introductory course from a different social and behavioral sciences discipline | 3
A further study course from same discipline as introductory course or an issues and perspectives course in social and behavioral sciences | 3

Natural sciences and mathematics | 48
CHEM 211 General Chemistry | 5
CHEM 400 Intro. to Pathophysiology | 4
MEDT 400 Clinical Lab Management/ Education | 3
MEDT 405 Medical Immunology | 3
MEDT 410 Medical Microbiology | 3
MEDT 420 Medical Immunology | 3
MEDT 430 Medical Microbiology | 3
MEDT 440 Medical Immunology | 3
MEDT 450 Medical Microbiology | 3
MEDT 460 Medical Immunology | 3
MEDT 470 Medical Immunology | 3
MEDT 480 Medical Immunology | 3
MEDT 490 Medical Immunology | 3
MEDT 491 Medical Immunology | 3
MEDT 492 Medical Microbiology | 3
MEDT 493 Medical Microbiology | 3
MEDT 494 Medical Microbiology | 3
MEDT 495 Medical Microbiology | 3
MEDT 496 Medical Microbiology | 3
MEDT 497 Medical Microbiology | 3
MEDT 498 Medical Microbiology | 3
MEDT 499 Medical Microbiology | 3

MLT to BSMT Progression

Graduates of an 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 examination, including a tuberculin skin test, rubella, rubeola titer, and hepatitis immunization prior to their clinical assignments in the affiliate laboratories.

Lower-Division Courses

MEDT 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 coordinator. Repeatable for credit. Prerequisites: basic requirements for admission include successful completion of the freshman year and
satisfactory academic standing prior to the first job assignment.

Upper-Division Courses

MEDT 310. Clinical Laboratory Services (I). 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.

MEDT 400. Clinical Laboratory Management/Education (S). A study of the principles and methodologies of laboratory management and supervision and teaching techniques applicable to the clinical laboratory sciences. Prerequisite: program consent.

MEDT 405. Medical Immunology (3). An introduction to the study of immunological concepts as they apply to the study, prevention, and causation of the disease process. Prerequisite: BIOL 223.

MEDT 411. Special Topics (1-6). Supervised intensive study of special topics and problems related to health professions. Repeatable to a maximum of 6 hours. Prerequisite: program director’s consent.

MEDT 411A. Special Topics in Clinical Chemistry (I). Review of current quality control procedures, biological variables, interactions, and factors affecting test results. Prerequisites: BSMT or equivalent and MT/CLS certification.

MEDT 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. Prerequisites: BSMT or equivalent and MT/CLS certification.

MEDT 411C. Special Topics in Immunohematology (I). Generalist training in immunohematology. Through lecture, discussion, and demonstration, technologist explores transfusion products and diagnostic services in a modern blood bank. Prerequisites: BSMT or equivalent and MT/CLS certification.

MEDT 411D. Special Topics in Microbiology I (I). Reviews gram stain and 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. Prerequisites: BSMT or equivalent and MT/CLS certification.

MEDT 411E. Special Topics in Microbiology II (I). Reviews virology, mycology, parasitology, and morphological characteristics used in the identification of organisms. Focuses on laboratory methods and test interpretations used in the clinical laboratory. Prerequisites: BSMT or equivalent and MT/CLS certification.

MEDT 411F. Special Topics in Urinalysis/Hemostasis (I). 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. Prerequisites: BSMT or equivalent and MT/CLS certification.

MEDT 430. Bioterrorism: Fact and Fiction (3). General education issues and perspectives course. Designed to provide a background for the discussion of the natural and human causes of the determinants/trends that influence the agents of bioterrorism including those of emerging and re-emerging diseases. Popular literature, both fiction and non-fiction; TV and printed news items; and Web sites serve as sources of information. Topics are generated by current events and/or issues generated by the guest lecturers.

MEDT 450. Clinical Chemistry I (4). Studies the principles, concepts, and techniques of basic clinical laboratory instrumentation including absorption, spectrophotometric, ultraviolet, emission, fluorometric and nephelometric techniques used in the clinical chemistry laboratory for the analysis of serum, plasma, and other body fluids.

MEDT 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.

MEDT 452. Analysis of Body Fluids (3). 2R. 3L. Includes the study of renal physiology, routine urinalysis, and renal function tests. Also encompasses the principle and techniques involved in the analysis of cerebrospinal fluid, feces, gastric fluid, synovial fluid, amniotic fluid, ascitic fluid, duodenal fluid, salivary fluids, and seminal fluid.


MEDT 457. Clinical Chemistry II Laboratory (1). A laboratory course encompassing the application of the principles of technique appropriate to the evaluation of methodology, acid-base balance, advanced enzyme quantification, endocrinology, and toxicology. Prerequisite: MEDT 456, concurrent enrollment, or program approval.

MEDT 459. Applied Clinical Chemistry (3). Application of clinical chemistry procedures and techniques in the analysis of body fluids in a clinical laboratory setting. Prerequisites: MEDT 450, 456, and program consent. Offered Cr/NCr only.

MEDT 460. Hematology I (3). Emphasizes the clinical significance of laboratory data and its correlation with pathologic conditions. Includes in-depth discussions of anemias and leukemias. Prerequisites: MEDT 460, 461, and program consent.

MEDT 467. Hematology II Laboratory (1). 3L. Emphasizes special testing procedures used in the hematology laboratory for diagnosis of anemias and various white cell disorders such as leukemia. Pre- or corequisites: MEDT 466 and program consent.

MEDT 469. Applied Hematology (3). Application of the theory and technical skills of hematology in a clinical laboratory. Prerequisites: MEDT 467, and program consent. Offered Cr/NCr only.

MEDT 470. 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: MEDT 405 or equivalent or instructor’s consent.

MEDT 471. Immunohematology I Laboratory (1). 3L. 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, neonatal testing, Rh immune globulin, and quality assurance of immunohematology laboratory procedures. Prerequisites: MEDT 405 or equivalent and MEDT 470 or concurrent enrollment or instructor’s consent.

MEDT 476. Immunohematology II (2). A problem-solving, theoretical course in blood banking, covering HLA, disputed paternity, forensic testing, antibody identification and techniques, and resolution of serological incompatibilities encountered in blood types, compatibility testing, hemotherapy, hemolytic disease of the newborn workups, Rh immune globulin tests, and hemolytic anemia workups. Prerequisite: MEDT 470 or instructor’s consent.

MEDT 477. Immunohematology II Laboratory (1). 3L. A laboratory course in techniques relevant to resolution of medical-legal cases, antibody identification, and problems encountered in blood typing, compatibility testing, hemotherapy, hemolytic disease of the newborn, Rh immunoglobulin, and hemolytic anemia. Pre- or corequisite: MEDT 476 or instructor’s consent.

MEDT 479. Applied Immunohematology (3). Application of 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 or diagnosis in performing any of the procedures. Offered Cr/NCr only. Prerequisites: MEDT 467, 477, and program consent.

MEDT 480. Clinical Immunology/Serology I (1). 1R. Prerequisite: MEDT 405 and admission to the medical technology program.
MEDT 489. Applied Clinical Techniques (2). Application of theory and techniques of clinical immunology, serology, body fluids, and specimen collection in the clinical laboratory. Offered Cr/NCr only. Prerequisites: MEDT 406, 452, 480, 483, and program consent.

MEDT 490. Clinical Microbiology I (3). Basic theory covering (a) procedures for specimen processing in the clinical laboratory; (b) normal flora; (c) morphological, cultural, and serologic characteristics of common pathogenic bacteria; and (d) basic theory in antimicrobial susceptibility testing techniques. Prerequisite: BIOL 330. Corequisite: MEDT 491.

MEDT 491. Clinical Microbiology I Laboratory (1). 4L. Basic procedures for the set up and examination of clinical specimens. Isolation and identification procedures for the more common pathogenic organisms. Use and interpretation of common antimicrobial susceptibility testing procedures. Runs concurrently with MEDT 490. Prerequisite: BIOL 330. Pre- or corequisites: MEDT 490, and program consent.

MEDT 493. Molecular Diagnostics in the Clinical Laboratory (2). 1R. An introduction to molecular diagnostics in the clinical laboratory including basic concepts of molecular diagnostics, current types of diagnostic applications in the areas of infectious disease, hematological malignancies, solid tumors, genitourinary disease, and forensic pathology and identity testing.

MEDT 494. Special Topics in Clinical Microbiology (3). 2R, 3L. The study of the medically important fungi and parasites emphasizing their identification in the clinical laboratory. Discusses life cycles and their relation to the infection/disease process and the epidemiology of these organisms. Prerequisites: BIOL 330 and program consent.

MEDT 496. Clinical Microbiology II (3). Advanced theory, procedures, and rationale for the isolation and identification of the non-fermenters, the anaerobic, and unusual aerobic organisms. Discusses disease processes and identification of the acid-fast bacteria. Introduces advanced antimicrobial susceptibility testing techniques. Prerequisites: MEDT 490, 491, 497, or concurrent enrollment.

MEDT 497. Clinical Microbiology II Laboratory (1). 4L. Advanced laboratory techniques in the isolation and identification of non-fermenters, the anaerobic, and unusual aerobic organisms. Techniques for cultures and identification of acid-fast bacteria. Advanced antimicrobial susceptibility testing techniques. Prerequisites: MEDT 490 and 491. Corequisite: MEDT 496.

MEDT 498. Applied Clinical Microbiology (3). Application of theoretical and practical aspects of clinical microbiology in a commercial laboratory and operating hospital laboratory. Offered Cr/NCr only. Prerequisites: MEDT 496 and 497.

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

Physical Therapy (PT)
Because physical therapy is an entry point into the health care system for many individuals, the physical therapy program at Wichita State University develops practitioners who can meet this responsibility and provide leadership inside and outside the profession. The Doctor of Physical Therapy degree allows the student to achieve a foundation in liberal arts and sciences as well as gain an education in the profession of physical therapy. Graduates have the skills and knowledge base necessary to assist them in influencing the quality of physical therapy care, the profession of physical therapy, and health care in the local community and beyond. For more information about the Doctor of Physical Therapy degree, please see the Graduate Catalog.

Lower-Division Courses
PT 281. Co-op Education (1–3). A field placement which integrates coursework 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 coursework, 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 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
PT 481. Co-op Education (1–3). See PT 281. Please see the Graduate Catalog for Doctor of Physical Therapy courses.

Physician Assistant (PA)
The department of physician assistant offers a graduate degree program leading to an MPA degree. Refer to the Graduate Catalog for program requirements. The bachelor degree was phased out summer 2005. No new bachelor degree-seeking students are being admitted.

Lower-Division Courses
PA 128. Pharmacology of Street Drugs (1). Covers most major classes of drugs of abuse including alcohol, depressants, narcotics, stimulants, hallucinogens, marijuana, and over-the-counter medications as well as prescription medications used to treat mental disorders. The focus is 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.

PA 158. 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 areas of content presented. Course does not satisfy WSU’s social science requirement, nor does it count toward a psychology major.

PA 281. Cooperative Education Field Study (1–8). A field placement which integrates coursework 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 coursework in addition to their co-op assignments; 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 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

PA 327. Introduction to Global Health Issues (3). Cross-listed as HMCD 327. Overview of the complex health problems and challenges facing low and middle-income countries which experience the highest rates of global morbidity and mortality. Addresses strategies to improve the health status of these vulnerable populations; to appreciate how social, behavioral, economic and environmental factors influence the health of the population; and to implement techniques to prevent premature death and disability. Course content assists the learner by developing a broad view of global health problems and solutions.

PA 328. Introduction to Alternative and Complementary Medicine (3). 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.

PA 481. Cooperative Education Field Study (1–8). See PA 281.
Courses 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 departmental consent.

Please see the Graduate Catalog for information about WSU’s Master of Physician Assistant program and for courses numbered 700 and above.

Public Health Sciences (PHS)
The department of public health sciences offers bachelor of science degrees in health services management and community development, and health sciences. The department also offers a graduate certificate in public health and the administrator-in-training (AIT) for senior services.

Administrator-in-Training (AIT) for Senior Services Practicum

Placement Program

The AIT is designed to place qualified applicants in a 9-credit-hour, 480-clock-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 to individuals with a bachelor’s degree, who have had coursework in gerontology or long-term care, management concepts, and finance or accounting.

The required courses are available through the department of physician assistant, health services management and community development program, for those interested applicants who have not taken such coursework prior to considering a career as a nursing home administrator. The Bachelor of Science degree in health services management and community development, provides program majors with the coursework required for AIT placement.

Interested program majors may pursue the AIT requirements while completing their degree programs. Additional information on the AIT is available through the HMCD program.

Bachelor of Science in Health Science

Admission Information

The health sciences field is enjoying an explosion of career opportunities, with job growth of 27 percent predicted in the next decade for all health services professions (U.S. Bureau of Labor statistics). In concert with this growth, the department of public health sciences offers a Bachelor of Science (BS) in health science.

Typically, health science graduates go on to work in health care sectors such as pharmaceutical and hospital sales representatives, specialists in insurance companies, science technicians (or research assistants). The degree may also be used for those who wish to progress to supervisory or instructional positions requiring a baccalaureate degree (e.g., radiologic technologists, respiratory therapists).

Others opt to extend their employability even further by pursuing a graduate or professional education. Graduate-level education can lead to careers in health administration, medicine, physical therapy, physician assistant, or public health.

Salaries vary widely among occupations, but generally reflect the unprecedented demand for qualified health science professionals. Health science majors are introduced to the full array of health science careers, and can begin to focus their interests during the last two years of the four-year program.

A bachelor degree program in health science provides a foundation in liberal arts and sciences, along with a core health sciences curriculum.

The BS in health science degree at Wichita State University will be useful to students:

1. Pursuing positions in the health care sector as pharmaceutical and hospital sales representatives, specialists in insurance companies, research assistants, etc.;
2. Needing an undergraduate degree for entry into a graduate professional degree program offered by the College of Health Professions or other colleges/universities requiring such a degree; or
3. Desiring a general degree in the health field, and/or having a preprofessional health interest.

Admission to the College of Health Professions

Students choosing to study health science are admitted to the BS in health science degree program. They are assigned a college adviser who will assist them in meeting the requirements for the degree. Students who meet admission criteria and are admitted to the professional degree program will also be assigned a faculty adviser who will serve as a mentor.

Program Objectives

The responsibility of the program is to provide a learning environment in which students:

- Develop a broad understanding of social and scientific principles necessary for a career in the health sciences;
- Obtain the clinical foundation required to work in entry-level health science positions and/or to advance into graduate health profession education;
- Explore the political, legal, social, multilingual, and ethical issues that impact the practice of health care;
- Expand interdisciplinary understanding and collaboration among the health professions;
- Apply scientific knowledge, humanistic values, critical analysis, and a systematic approach to solving problems;
- Develop skills that prepare them to interact as professionals within a diverse, interdisciplinary health care environment; and
- Develop skills for continuing professional growth and lifelong learning.

Degree requirements

Basic skills ................................................. 12

(each course must generate a grade of 2.000 or more credit points per credit hour)

ENGL 101 English Comp I .......................... 3
ENGL 102 English Comp II .......................... 3
COMM 11 Public Speaking .......................... 3
MATH 111 College Algebra .......................... 3
Humanities & Fine Arts .............................. 12
Fine Arts (3) .................................
*Further Study/IP (3)

Social and Behavioral Sciences .................. 9

Introductory courses (6)
*Further Study/IP (3)

Math & Nat Sciences .............................. 9

Introductory courses (6)
*Further Study/IP (3)

Total ...................................................... 42

*Selected from the Issues and Perspectives category

Program Mathematics and Natural Science electives (select a minimum of 14 hours)

General education courses from this area may also be used to meet basic skills requirements above:

BIOL 106 The Human Organism ............... 3
BIOL 107 Human Organism Lab ............... 1
BIOL 210 General Biology I ...................... 4
BIOL 211 General Biology II ..................... 4
BIOL 220 Intro to Microbiology ................. 4
BIOL 223** Human Anatomy/Physiology ....... 5
BIOL 330 General Microbiology ................. 5
CHEM 103 Introduction to Chemistry .......... 5
CHEM 211** General Chemistry I .............. 5
CHEM 212 General Chemistry II ............... 5
CHEM 331 Organic Chemistry I ............... 5
hours of upper division coursework in order to qualify for graduation.

For more information or to arrange a campus visit, contact the Office of Admission, Wichita State University, 1845 Fairmount, Wichita, KS 67260-0124, or call (316) 978-3085 or toll free 1 (800) 362-2594.

Health Services Management and Community Development (HMCD)

Bachelor of Science in Health Services Management and Community Development

The Bachelor of Science degree in HSMDC develops leadership capacity for a healthy society through its undergraduate degree program. This curriculum establishes a 48-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.

This 48-credit-hour professional degree program is appropriate for individuals interested in pursuing a career in health services management. Undergraduate students are encouraged to pursue a career in health services management as an appropriate complement to this career choice. Additional information on this minor may be found in the Barton School of Business section of this Catalog, or can be obtained through program advisories. Students who are interested in community development work are strongly encouraged to consult with their faculty adviser when selecting an appropriate minor.

Undergraduate Minor

A minor in health services management and community development is available to any student outside the program major. The minor consists of HMCD 310, Introduction to the U.S. Health Services System and 12 credit hours of HMCD introductory (300-level) coursework. It does not include HMCD elective (HMCD 400-level) coursework.

Admission Requirements

All students with a declared interest in health services management and community development are encouraged to seek preprofessional advising through the College of Health Profession’s Advising Student Services office.

In order to be admitted to the health services management and community development program, students must fulfill the following requirements:

1. Complete at least 42 semester credit hours of college-level coursework with a cumulative GPA of 2.250 or higher;
2. Complete English 101 and 102, Communication 111 and Math 111, each with a grade that generates at least 2.000 credit points per credit hour or better;
3. Complete the designated application process to the program and be formally admitted. The application packet is available through the HMCD program and the College of Health Professions Advising Student Services office; and
4. Complete program prerequisites of one course in basic statistics, one course in oral communications beyond COMM 111, one course in medical terminology, and HMCD 310, Introduction to the U.S. Health Services System. All prerequisite coursework must be completed with a grade that generates 2.000 or more credit points per credit hour.

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 coursework. Failure to complete deficiencies within the prescribed time frame will constitute grounds for dismissal from the program.

Courses recommended to fulfill the basic statistics prerequisite—select one:
- ECON 231–232 Introductory Business Statistics
- concurrent software applications
- lab optional
- CESP 704 Educational Statistics
- STAT 370 Elementary Statistics
- PSY 301 Psychological Statistics
- SOC 301 Sociological Statistics

Courses recommended to fulfill the oral communication prerequisite—select one:
- COMM 302 Interpersonal Communication
- COMM 311 Persuasion
- COMM 313 Argumentation and Advocacy
- COMM 325 Speaking in Business and the Professions
- COMM 328 Teamwork, Leadership & Group Communication
- ENGL 210 Composition: Business, Professional & Technical Writing

Courses recommended to fulfill the medical terminology prerequisite—select one:
- HP 203 Medical Terminology (2hrs)
- HP 303 Medical Terminology (3hrs)

Course required to fulfill the HMCD prerequisite:
- HMCD 310 Introduction to the U.S. Health Services System

**Progression**

Senior standing in the HMCD program is required to enroll in HMCD upper division (400-level and above) courses, except with the consent of the course instructor. Upon admission to the HMCD program, a student will be assigned a faculty advisor with primary expertise in the student’s area of interest. Students may not select HMCD elective coursework without input from their faculty advisors. Students admitted with a deficiency will not be allowed to take HMCD 400-level coursework until the program prerequisites have been satisfied.

Students must also have senior standing to take either HMCD 460, Health Services Management and Community Development Practicum; HMCD 461, Healthy Options for Kansas Communities: A Community-Based Practicum in Neighborhood Development; or HMCD 470, Capstone Seminar in Health Services Management and Community Development.

Students in the health services management and community development program are required to maintain a cumulative grade point average of 2.250, with no individual course grade in the major having a grade that generates less than 2.000 credit points per credit hour. Students failing to meet this requirement will have one semester to correct their GPA deficiencies. Failure to do so will result in dismissal from the program.

**Professional Curriculum**

- HMCD 325 Introduction to Epidemiology
- HMCD 330 Community Health and Development
- HMCD 333 Organizational Behavior and Leadership in Health Org.
- HMCD 344 Role of Culture in HealthCare
- HMCD 352 Strategic Management in Health Service Organizations
- HMCD 354 Health Politics

**HMCD Upper Division Program**

Eight courses (24 hrs.) to be selected with guidance from faculty adviser

**HMCD 326 Emerging Health Care Issues of the 21st Century**

**HMCD 327 Intro. to Global Health Issues**

**HMCD 403 Health Education and Health Promotion**

**HMCD 423 Prgrm. Planning/Development in Health Services**

**HMCD 428 Health Care Organization**

**HMCD 443 Social Marketing**

**HMCD 458 Long-Term Care Systems**

**HMCD 478 Health Economics**

**HMCD 621 Supervisory Management in Health Care Organizations**

**HMCD 622 Health Care Organization**

**HMCD 623 Coalition Building**

**HMCD 625 Special Topics in Health Serv.**

**HMCD 642 Financing Health Care Serv.**

**HMCD 643 Intro to Geographic Information Systems (GIS)**

**HMCD 648 Concepts of Quality**

**HMCD 663 Community Action Research**

**HMCD 670 Community-Based Practicum**

**HMCD 671 Capstone Seminar in HMCD**

**HMCD 672 Community Research**

**HMCD 673 Health Care Ethics**

**PHIL 327 Bioethics**

Required Practicum 3hrs
HMCD 460 HMCD Practicum
HMCD 461 Healthy Options for Kansas Communities 3hrs

Required Capstone 3hrs
HMCD 470 Capstone Seminar in HMCD

**Total Hours Required for HMCD major:**
- 18 hrs required introductory courses + 24 hrs. selected upper-division program courses + 3 hrs. practicum + 3 hrs. capstone = 48 credit hours.

**Total Hours Required for HMCD minor:**
- HMCD 310 + 12 hrs. 300-level HMCD coursework = 15 credit hours.

**Upper Division Courses**

>HMCD 308. Leadership in Self and Society (3).

General education issues and perspectives course. Cross-listed with PSY 413. Examines 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.

>HMCD 310. Introduction to the U.S. Health Services System (3).

General education issues and perspectives course. Designed to provide all students a common background in how the U.S. health services system is organized, how health services are delivered and the mechanisms by which health services are financed in the United States. Provides an overview of the U.S. health services system and its key components, including the organization and management of the system, resource development (health care work force, health facilities and biomed-ical technology), the economic support system and the delivery system. Dr. Milton Roemer’s model of a health services system is used as the analytic model for this course.

HMCD 325. Introduction to Epidemiology (3).

Introduces students to the science and methodology of disease and risk surveillance in public health. It presents the foundations and structure 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.


Cross-listed as PA 326. Team-taught by experts inside and outside the College of Health Professions. An in-depth study of emerging health care issues in a rapidly changing health care environment. Addresses current and critical health care issues facing the community locally, nationally, and abroad. Presents historical coverage of medical issues of the 20th century as a means of understanding contemporary issues.

HMCD 327. Introduction to Global Health Issues (3). Cross-listed as PA 327. Overview of the complex
HMCD 333. Organizational Behavior and Leadership in Health Organizations (3). Designed to familiarize students with the classic themes and perspectives from the field of organizational behavior. 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.

HMCD 344. The Role of Culture in Health Care (3). Examines the importance of culture in the way people define, react to, and treat illness and other health risks. Culture influences health-seeking behavior by age, ethnicity, education, religion, income, and tradition. When major differences exist between a patient's and provider's cultural understanding of illness, a host of adverse outcomes may result. Therefore, this course is additionally designed to improve student's knowledge of the role of culture in health services by increasing awareness, understanding, tolerance, and appreciation of ethnocultural differences. Students are introduced to concepts of cultural diversity to enhance their development as culturally competent leaders in the health care sector through lecture discussion, guest presentation, and video.

HMCD 352. Strategic Management in Health Services Organizations (3). Strategic management is a philosophy of organization management that is integral to leadership at all levels of an organization. Strategic management is all about making decisions that make an organization successful and create a climate for success in the organization. Critical elements of strategic management include understanding the external and internal environments, developing strategies to move the organization forward and implementing controls to evaluate the effectiveness of the strategies and make strategy adjustments as needed.

HMCD 354. Health Politics (3). Examines how public policies affecting health care and public health are created within legislatures, regulatory agencies, and courts through the political actions of individuals and groups with vested interests. Using selected video, critical analysis and political profiling as tools, it focuses on the development of skills needed to influence policy developments.

HMCD 403. Health Education and Health Promotion (3). Introduces students to concepts fundamental to the practice of health education and health promotion. Provides an overview of major health behavior theories, principles, and strategies drawn from the behavioral science disciplines. Students examine how health behavior theory and conceptual models guide the development and implementation of effective health promotion interventions. Students learn the importance of collaboration in effecting social change, the philosophical, ethical and theoretical foundations of the professional practice of health education and health promotion in school, community, worksite and patient education programs. Contemporary health education philosophy, "Health People: The Health Objectives for the Nation," the Certified Health Education Specialist process, ethical issues in health, and current and future issues in health education and health promotion are discussed. Prerequisites: HMCD 325 and senior standing in the HMCD program, or instructor's consent.

HMCD 423. Program Planning/Development in Health Services (3). Introduces students to planning, development and evaluation of health programs through the use of lecture, group projects, and individual presentations. Students familiarize themselves with a variety of approaches available in the field of program planning. Emphasizes the application of this material to the development of the program plan. Prerequisites: HMCD 325 and senior standing in the HMCD program or instructor's consent.

HMCD 428. Health Care Organization (3). Covers concepts and issues of management, organization, and operation of health care organizations, stressing the unique character of health care delivery organizations. Emphasizes types of health organizations, leadership and managerial roles, organizational structure and dynamics, the external environment, quality assessment and improvement planning and marketing with a focus on synthesizing resources and capabilities to meet organizational goals. Prerequisite: senior standing in the HMCD program or instructor's consent.

HMCD 443. Social Marketing (3). An introduction to the field of social marketing as it is used to improve the health of the public. Students examine the concept of social marketing and learn how to apply social marketing principles and techniques to health behavior change and improvement of health services management and community development. Includes 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 pretesting of intervention materials, channel analysis for devising distribution systems and promotion- al campaigns, the employment of the "marketing mix" concept in intervention planning and implementation, and evaluation techniques for social marketing campaigns. Students are introduced to the limitations, challenges and successes of social marketing. Prerequisite: HMCD 344 and senior standing in the HMCD program, or instructor's consent.

HMCD 458. Long-Term Care Systems (3). 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. Prerequisite: senior standing in the HMCD program or instructor's consent.

HMCD 460. Health Services Management and Community Development Practicum (3). Enables students to apply skills and knowledge in an applied setting through a supervised field training experience in a health care setting that complements the student's interests and career goals. The purpose of the practicum is to enable students to gain practical experience as professionals under conditions conducive to educational development. Students may select, with the consent of the practicum coordinator, an internship in an appropriate health service organization. The practicum requires participation in a broad field work component, completion of a focused project component, and a written report of the experience. Prerequisite: senior standing in the HMCD program.

HMCD 461. Healthy Options for Kansas Communities: A Community-Based Practicum in Neighborhood Development (3). A team alternative to our traditional individual practicum offering, HMCD 460. The scope of the learning experience and student requirements are comparable for the two courses. HMCD 461 provides an intensive, structured and supervised community-based group practicum during which students will learn to apply community development and management theories and tools previously introduced in the HMCD curriculum. At the same time, the team will work on a project intended to bring real value to the local "client" agency or group. Our community-campus partnership site at Healthy Options for Kansas Communities—Planview (HOP) serves as the home base for the project activity; HOP is an interdisciplinary health education and outreach center providing students and faculty from across WSU and seven sister institutions with opportunities to work with community partners on the development of culturally and linguistically appropriate services (CLAS) for teens and older adults, case management, and assistance for speakers of other languages. The specifics of the practicum project change with each course offering, but will, in general, focus on one of the following: a) helping to improve the service capacity of the non-profit organization; b) identifying the community needs and assets through participatory research; c) developing strategic strategies for mobilizing community resources to respond to identified problems; d) monitoring and improving service quality; and, e) disseminating program results to appropriate audiences. Prerequisite: senior standing in the HMCD program, or instructor's consent.
HMCD 470. Capstone Seminar in Health Services Management and Community Development (3). Designed to provide students at or near the end of their program of study, the opportunity to apply information, 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 ethical decision-making situations. Students, whose courses of study have emphasized health services management, will additionally evaluate issues and concerns, which integrate the program core with the knowledge and skills specific to careers in health services management. Students, whose courses of study have 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. Prerequisite: senior standing in the HMCD program.

HMCD 478. Health Economics (3). Approaches health economics by following the “flow of funds” to describe the incentives and organizational structure of the health care system in the United States. Examines transactions between patients and providers, the role and results of insurance and government involvement and some of the history of the U.S. health care system. Also considers national health spending and public health from a macroeconomic perspective. Prerequisite: senior standing in the HMCD program or instructor’s consent.

HMCD 481. Cooperative Education Field Study (1–8). Provides the student with a field study 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 the appropriate faculty, students, and instructors. May be repeated for credit. Prerequisite: instructor’s and cooperative education coordinator’s consent.

HMCD 490. Independent Study (3). Supervised intensive study of special topics and problems relating to health care delivery. Repeatable up to 6 hours. Prerequisite: program consent.

Courses for Graduate/Undergraduate Credit

HMCD 621. Supervisory Management in Health Care Organizations (3). A study of supervisory management concepts and techniques that apply to health care organizations and programs. Emphasis is on understanding the health care environment and its various health care settings, the identification of issues facing front-line employees, supervisors and mid-level managers, and the development of administrative and leadership skills necessary to successfully lead health care work teams. Identifies, analyzes and solves problems that clinical department heads, supervisors, and other health related mid-management personnel encounter in their work. The principles of effective management techniques—planning, decision making, organizing, budgeting, time management, leadership, direction, delegation, communication, motivation, discipline, performance appraisal, management of change, teamwork, effective meeting, working with unions, quality improvement, and career development—are covered. Prerequisite: HMCD 310.

HMCD 622. Human Resources Management in Health Care Organizations (3). Intended for clinical health care professionals who have responsibility for managing people in health care organizations. Also intended for health care management students who will have responsibility for managing people in health care services organizations. An introduction to the essential theories, components, and issues of human resources management in the health care field. Includes the study of the effectiveness of the human resources management function, employee recruitment, selection, training, performance appraisal, benefits and compensation, employee relations and other relevant legal requirements affecting employment. Covers issues of contemporary relevance for human health services resources departments such as employee health and safety, employee assistance programs, occupational stress and job burnout, violence in the workplace and work/family issues. Students are required to learn and to demonstrate the ability to analyze human resources problems and to present sound solutions. Students are expected to learn and demonstrate effective group working skills as they join small groups and engage in collaboratively solving a number of human resources management problems.

HMCD 623. Coalition Building (3). Designed to familiarize students with the factors influencing successful collaboration in community health services. Emphasizes the application of this material to the development of community-based coalitions, alliances, committees, and partnerships. Format includes lecture, group and individual examination of the literature, analysis of case studies, and fieldwork. Prerequisite: HMCD 333 and senior standing in the HMCD program, or instructor’s consent.

HMCD 625. Special Topics in Health Services (3). Designed to provide students with the opportunity to explore, in detail, a current topic relevant to health management and community development. Students review current research related to the selected topic, provide weekly presentations, engage in discussion, and produce a term paper. Also includes lecture and guest arrangements from outside the department and the institution. Prerequisite: senior standing in the HMCD program, or instructor’s consent.

HMCD 642. 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 crucial to the health setting: considerations financial organization, sources of operating revenues, budgeting and cost allocation methods. Uses examples for various types of health service organizations. Prerequisite: senior standing in the HMCD program, or instructor’s consent.

HMCD 643. Introduction to Geographic Information Systems (GIS) (3). Skills-based course introduces a group of software tools used in health care and many other professions to analyze and model spatial data. These 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. GIS’s outstanding integrative abilities are increasingly valued by those who need to synthesize multiple information streams in their decision making. 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. Prerequisite: HMCD 325 and senior standing in the HMCD program, or instructor’s consent.

HMCD 648. Concepts of Quality (3). Addresses the issues of quality assurance in health care institutions and not-for-profit organizations. An overview of the history and current status of quality programs is presented. The role of quality in organizational strategic management is also covered. Students study the role of quality from theory to application in a broad base of organizational settings. Prerequisite: senior standing in the HMCD program or instructor’s consent.

HMCD 660. Administrator-in-Training (AIT) Long-Term Care Practicum (3, 6, 9). Needs for health services will increase dramatically in the future because of the rising increase in the elderly population. A broad 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. Prerequisite: instructor’s consent.

HMCD 663. Community Action Research (3). Introduces a set of applied, interdisciplinary research tools used to better understand and respond to health-related community needs. It reviews a number of action research strategies. Each strategy includes three basic requirements: 1) the focus of the research is on social practices that are potentially able to be improved; 2) the research project spirals through cycles of planning, acting (initiating an intervention), observing (collecting and analyzing data) and reflecting; and 3) the project involves a collaboration between the researchers, those who are engaged in, or affected by, the social practices of interest. The class participates in scientific interviews conducted face-to-face in the community. While the location may vary, the surveys typically take place in the diverse, low-income neighborhood of Flaneview, which has partnered with us in community building projects for more than a decade. Prerequisite: senior standing in the HMCD program, or instructor’s consent.

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 WSU. 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 for asynchronous learning.

**Lower-Division Courses**

**EMT 110. EMT Basic (3)**. Intended for individuals interested in providing care to patients in the prehospital setting. Prepares the student for application to challenge the state certification exam. Provides the participant with opportunities to achieve the cognitive and affective objectives of the U.S. 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 occurrences 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; and
D. Demonstrate the attitudes, values, and cognition necessary to effectively and compassionately function as an EMT-Basic. Corequisite: EMT 112.

**EMT 112. EMT Basic Skills (7)**. Provides the instruction, practice, and evaluation necessary to prepare participants for skills practice as an EMT-Basic. Provides opportunity 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:

A. Administer appropriate emergency medical care based on assessment findings of the patient’s condition;
B. Lift, move, position and otherwise handle the patient to minimize discomfort and prevent further injury;
C. Perform safely and effectively the expectations of the job description; and
D. Demonstrate the attitudes, values, and cognition necessary to effectively and compassionately function as an EMT-Basic.

**Mobile Intensive Care Technicians (MICT)**

(Formerly 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 to receive the AAS degree may apply to the bachelor’s degree program in health sciences.

**Lower-Division Courses**

**MICT 205. Introduction to Advanced Prehospital Care (4)**. An overview of the role of prehospital personnel, medical ethics, medical legal issues, EMS systems, communication procedures, medical terminology, patient assessment, history taking, body systems review, and fluid and electrolytes. Prerequisites: departmental and instructor’s approval.

**MICT 207. Electrophysiology (3)**. Presents the information needed for administering the medications used in prehospital situations, the methods of administration, conversion of various drugs when necessary, and drug interactions. Prerequisites: departmental and instructor’s approval.

**MICT 220. Prehospital Pharmacotherapeutics (3)**. Designed to provide the participant with features, indications, and contraindications of prehospital medications. Prerequisites: departmental and instructor’s approval.

**MICT 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: departmental and instructor’s approval.

**MICT 221. Traumatology (7)**. Discusses the kinematics of injury and management of the adult and pediatric trauma patient, including airway and fluid management, prehospital treatment of various injury states including blunt and penetrating trauma, burns, and triage. Prerequisites: departmental and instructor’s approval.

**Upper-Division Courses**

**MICT 320. Clinical Internship (6)**. Receive in-hospital training with physicians, nurses, and technicians in their areas of expertise including ER, OR, IV Team, LDR, ICU, or other areas where skills learned can be applied to prehospital care. Prerequisites: departmental and instructor’s approval.

**School of Nursing (NURS)**

The School of Nursing offers the Bachelor of Science in Nursing (BSN) and the Master of Science in Nursing (MSN). 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 58 hours of coursework. Persons interested in the Bachelor of Science in Nursing may directly inquire to: Senior Academic Adviser, School of Nursing, Wichita State University, Wichita, Kansas 67260-0041.

**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 session.

<table>
<thead>
<tr>
<th>Course</th>
<th>Hrs.</th>
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<tbody>
<tr>
<td>ENGL 101 College English I</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 102 College English II</td>
<td>3</td>
</tr>
<tr>
<td>COMM 111 Public Speaking</td>
<td>3</td>
</tr>
<tr>
<td>MATH 111 or 112</td>
<td>3</td>
</tr>
<tr>
<td>Fine arts appreciation</td>
<td>3</td>
</tr>
<tr>
<td>PHIL 100, 125, or 144</td>
<td>3</td>
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<tr>
<td>Course of humanities</td>
<td>3</td>
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<tr>
<td>Humanities and Fine Arts</td>
<td>3</td>
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<tr>
<td>Social and Behavioral Sciences</td>
<td>3</td>
</tr>
<tr>
<td>PSY 111 General Psychology</td>
<td>3</td>
</tr>
<tr>
<td>PSY 325 Developmental Psychology</td>
<td>3</td>
</tr>
<tr>
<td>SOC 111 Introduction to Sociology</td>
<td>3</td>
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</tbody>
</table>
Natural Sciences and Mathematics
BIOL 220 Introduction to Microbiology 4
CHEM 103/211 General Chemistry 5

Other Prerequisites
BIOL 223 Human Anatomy & Physiology 5
HS 301 Clinical Pharmacology 3
HS 400 Intro. to Pathophysiology 4
Medical terminology 1–3
Statistics with approval 3
Elective 1–2

Admission to School of Nursing
Students should request application materials from the School of Nursing, or obtain application materials online, prior to enrolling in their last semester of prerequisite courses. Applications for fall semester admission are required by February 1; for spring semester admission, by September 1. To qualify as a candidate for admission to the School of Nursing, students must:
1. Be enrolled in, or admitted to, WSU;
2. Have completed, or have plans to complete, the prerequisite requirements;
3. Have an overall grade point average of at least 2.750 in all courses completed and no grade lower than a 2.000 in any of the specified required courses;
4. Submit application materials including expected semester of enrollment; and
5. Complete a standardized entrance test with a minimum percentage score.

Professional Curriculum
The following courses in the School of Nursing are required for the Bachelor of Science in Nursing. A total of 124 hours of coursework are required for the BSN degree only. The RN to BSN plan offers advanced placement to registered nurses seeking a Bachelor of Science in Nursing degree. Leads to a degree. Up to 7 hours of credit for previous coursework can be applied to the degree. Paramedics seeking admission to this program must meet undergraduate admission requirements, be a graduate of a certified paramedic education program, be nationally certified as an EMT-P, and have the equivalent of 1,000 hours of documented EMT-P work experience. The MICT to BSN plan offers advanced placement to paramedics seeking a Bachelor of Science in Nursing degree. Leads to a 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; and
2. Submit official transcripts of college courses and records verifying completion of a nursing program.

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; and
2. Submit official transcripts of college courses and records verifying completion of a nursing program.

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; and
2. Submit official transcripts of college courses and records verifying completion of a nursing program.

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 4 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, pass a standardized test, 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.

MICT to BSN Progression Plan
The MICT to BSN progression plan offers advanced placement to paramedics seeking a Bachelor of Science in Nursing degree. Up to 7 hours of credit for previous coursework can be applied to the degree. Paramedics seeking admission must meet undergraduate admission requirements, be a graduate of a certified paramedic education program, be nationally certified as an EMT-P, and have the equivalent of 1,000 hours of documented EMT-P work experience. The MICT to BSN plan offers advanced placement to paramedics seeking a Bachelor of Science in Nursing degree. Leads to a degree. Twenty-five hours of retroactive credit or credit by exam in nursing courses can be applied to the degree. The MICT 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; and
2. Submit official transcripts of college courses and records verifying completion of a nursing program.
RN to MSN Progression Plan
The RN to MSN plan is designed for nurses who hold career goals that extend beyond the bachelor's degree. RNs who demonstrate ability for graduate study may achieve the baccalaureate and master's degrees in an accelerated time frame, with 10 hours of baccalaureate coursework replaced by 9 hours of graduate coursework.

Contact the School of Nursing for the latest updates.

RN—BSN Professional Curriculum
Course .............................. Hrs.
Prerequisite and General Elective Courses
Basic Skills
MATH 111 or 112 ................. 3
ENGL 101 College English I ...... 3
ENGL 102 College English II ...... 3
COMM 111 Public Speaking ........ 3
Humans and Fine Arts
Fine arts appreciation ............ 3
PHIL 100, 125, or 144 ............ 3
Course in humanities other than philosophy. 3
Social and Behavioral Sciences
PSY 111 General Psychology ...... 3
PSY 325 Developmental Psychology ... 3
SOC 111 Introduction to Sociology ... 3
Natural Sciences and Mathematics
BIOL 220 Introduction to Microbiology (applies as an intro. gen. ed. course for the BSN degree only) 4
CHEM 103/211 General Chemistry ... 5
Other Prerequisites
BIOL 223 Human Anatomy & Physiology 5
Statistics with approval ............ 3
General electives* ................ 13
Total ................................ 60
Upper-Division Requirements
Philosophy/Ethics ................ 3
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 Intro to Evidence-Based Practice* (fall only) ...... 2
NURS 334 RN Bridge Course* ........ 4
NURS 345 Health Assessment* (sp. only) ...... 4
NURS 456 Primary Prevention* (sp. only) ...... 2
NURS 461 Care Manager/RN* (fall only) ...... 4
NURS 495 Clinical Capstone-RN ....... 2
NURS 531 Nursing & Computer Tech. .... 3
Career enhancement electives .......... 6
Total ................................ 30
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 successfully complete a background check prior to beginning any nursing course.

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 302. Professional Nursing Practice (3). Explores the discipline and scope of professional nursing as applied to diverse settings in the evolving health care system. Prerequisite: admission to the School of Nursing.


NURS 320. Nursing Care of Adults I (4). Emphasizes the identification and management of health alterations of adults in this first of two sequential courses. Alterations in acute and chronic conditions of selected body systems are presented using the nursing process and research-based evidence to guide therapeutic care, including life span variations. Corequisites: semester 5 courses.

NURS 325. Introduction to Evidence-Based Practice (2). An overview of the process of evidence-based nursing practice. Emphasizes the discovery and analysis of evidence to support clinical practice. Prerequisites: semester 5 courses. Corequisites: semester 6 courses.

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 340. Mental Health Nursing Care (4). 2T; 6P. Studies mental health nursing with clinical applications in community and hospital settings. Focuses on nursing care of clients across the life span who have mental illness. Prerequisites: semester 5 courses. Corequisites: semester 6 courses.

NURS 345. Health Assessment (4). 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 5 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. Clinical Care of Adults I (4). 18P; 4L. Clinical course emphasizes care for patients with acute illness and/or acute complications of chronic illness in acute care settings. Focuses on the application of therapeutic interventions to maximize health potential in individuals from the young adult to the frail elderly. Prerequisites: successful completion of semester 5 courses. Corequisites: semester 6 courses.

NURS 365. Nursing Care of Older Adults (2). In-depth study of the physiological and psychosocial changes of aging. Emphasizes adult patients experiencing acute and chronic alterations in health related to the effects of the aging process. The focus is on application of concepts and principles of care across multiple settings. Prerequisites: semester 5 courses.

NURS 370. Nursing Care of Adults II (4). Emphasizes the identification and management of health alterations of adults in this second of two sequential courses. Alterations in acute and chronic conditions of selected body systems are presented using the nursing process and research-based evidence to guide therapeutic care, including life span variations. Emphasizes application of didactic knowledge to meet individual patient needs. Prerequisites: semester 5 courses. Corequisites: semester 6 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. Emphasizes 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 lifestyles conducive to optimal health. Health care background recommended.

NURS 410. Clinical Care of Adults II (4). Emphasizes comprehensive patient care of young adults to frail elderly individuals with complex health problems. Prerequisites: successful completion of semester 5 and 6 courses. Corequisites: semester 7 courses.

NURS 425. 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 430. Pediatric Nursing Care (3). Focuses on family-centered nursing of children from infancy through adolescence with clinical application in community and hospital settings. Prerequisites:
NURS 434. Perioperative Clinical Management: Work-Study (5). 2T, 9P. Elective. Lecture/clinical 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, 440, or completion of 30 hours of a professional nursing program.


NURS 450. Nursing Care of Populations (3). 2.5T, 5.5P. Focuses on the role of the professional nurse in community health settings. Community health nursing functions, care coordination principles for clients, and the continuum of care on local, national, and global levels are integral components. Prerequisites: all semester 7 courses.

NURS 456. 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 460. Leadership and Clinical Decision Making (4). Focuses on the development and application of leadership and management in the health care setting. Sound clinical decision making in the care of clients is emphasized. Prerequisites: successful completion of semester 5, 6, & 7 courses. Corequisites: semester 8 courses.

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 financial implications for nursing. Prerequisite: admission to School of Nursing.

NURS 470. Nursing Care of Clients with Critical Illness (5). Emphasizes the complex nursing care of critically ill clients across the life span in the critical care and emergency settings. Prerequisites: successful completion of semester 5, 6, & 7 courses. Corequisites: semester 8 courses.

NURS 481. Cooperative Education Field Study (1-6). A field placement which integrates coursework 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 coursework in addition to their co-op assignments, 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 any other course. Prerequisites: successful completion of the freshman year and satisfactory academic standing prior to the first job assignment. May be repeated for credit.

NURS 495. Clinical Capstone—RN (2). 9P. 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 (4). 36P (5 weeks). Focuses on the transition from the role of student to the role of professional nurse through immersion in the clinical setting. The student focuses on a selected area of practice within the current health care environment. Prerequisites: successful completion of semester 5, 6, & 7 courses, NURS 460, 470.

Courses for Graduate/Undergraduate Credit

NURS 505. Directed Study in Nursing (1–4). Elective. Individual study of the various aspects and/or problems of professional nursing. Repeatable. Prerequisite: departmental consent.

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 enhances nursing assessment and care. 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 broad aspects of loss, from temporary transient illness to death. Includes human response, through the life span, to changed body image, disability and disfigurement, chronic illness, dying, and death. Includes 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 WOMS 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.

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, explaining the attractiveness and effectiveness of self-help groups. Panels of support group members share their experiences with self-help groups on such topics as addiction, cancer and other illnesses, eating disorders, bereavement, mental illness, and parenting.

NURS 567. Psychology of Helping Relationships (3). Cross-listed as PSY 566 and SOC 566. Introduces students to a psychological perspective on helping relationships that will be useful in both practice and research. Topics covered include the definition of relationship, and identification of the ways in which the roles of helper and help-seeker can be structured to maximize effectiveness: e.g. power, distance, similarity, and reciprocity. Relationships of interest include: counseling, psychotherapy, nursing and doctoring, family caregiving, mentoring, self-help/mutual aid, and volunteering. The emerging topic of “relationship-centered care models” in the education of health care professionals will be discussed. Prerequisite: 6 hours in psychology including PSY 111 or instructor’s consent.

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. Emphasis is placed on detailed health history taking, differentiation, interpretation, and documentation of normal and abnormal findings. Course includes lecture, discussion, and integration of history-taking and physical assessment assignments. Prerequisite: admission to graduate nursing program. May be taken concurrently with or prior to NURS 702.

NURS 702. Advanced Health Assessment Laboratory (3). Companion course for NURS 701. Apply 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. Theoretical Foundations of Advanced Nursing Practice (3). Emphasizes the role of theory in developing knowledge-based advanced nursing practice. Relationships among theory, research and practice are addressed. The application of selected theories, models and frameworks to advanced practice nursing is discussed. Prerequisite: admission to graduate nursing program.

NURS 705. Scientific Inquiry II (3). Builds on NURS 703. Discusses the research process in relation to concepts, frameworks/theories. Explores various methodological approaches to research. Considers current issues in nursing research. Demonstrates the research process in a preliminary proposal related to student’s practice area. Prerequisites: NURS 703 or departmental consent and admission to graduate nursing program.

NURS 707. Alternative and Complementary Health Care (3). Analyzes the theoretical and empirical basis for various alternative and complimentary
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 responsive to therapeutic interventions. Emphasizes total evaluation and support of health influences on lifestyle, environment, culture, and other cognitive, safety and affective factors. Open to non-nursing majors.

NURS 715. Advanced Nursing Practice Roles (1). Designed for the student preparing for advanced practice nursing. The historical development of the advanced practice role, as well as current and future professional and legal descriptions of advanced practice nursing roles is explored. Prerequisite: admission to graduate nursing program.

NURS 718. Advanced Technologies (2). Focuses on application of clinical skills and interpretation of technologies used in a variety of clinical settings. Nurse practitioner students practice these skills in laboratory and/or clinical settings. Prerequisites: admission to one of the NP specializations and departmental consent. Enrollment is limited.

NURS 720. Human Lactation (3–4). For the gradu- ate student preparing for practice as a lactation con- sultant. 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 consultant certification. Students work on case stud- ies, develop a paper for publication, and take a final examination via the Internet. Open to non-nursing majors. Prerequisite: admission to graduate program.

NURS 723. Foundations of Nursing Education (3). Assists the student to explore theoretical and practi- cal aspects of curriculum development and teaching of nursing in higher education and continuing education. Prerequisite: departmental consent.

NURS 724. Nursing Education Practicum (3). Students, under professional guidance, become directly involved in clinical and classroom teaching, curriculum development and participation in other faculty functions in higher education and continuing education, or patient education. A seminar and directed observation of a master teacher accompa- nies the field experience. Repeatable for a total of 6 credits. Prerequisites: departmental consent. Pre- or corequisite: NURS 723.

NURS 726. Common Dermatological Conditions in Primary Care (1–3). Interactive online course guides students through an instructional program with a profile of common dermatological conditions encountered in primary care. Information is present- ed in brief case scenarios; students identify the condition. Resource links are available for in-depth study of each condition. For clinical use, patient edu- cation links are provided. Cases give the didactic information needed to make clinical decisions. Prerequisite: senior rule or admission to the Graduate School or instructor’s consent.

NURS 727. Low Back Pain (1–3). Interactive online course guides students through an instructional pro- gram 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 rule or admission to the Graduate School or instructor’s consent.

NURS 728. Advanced Practice Technology and Skills (3). Focuses on application of clinical skills, advanced health assessment, and interpretation of technologies used in a variety of clinical settings. Students practice these skills in laboratory and clini- cal settings. Students practice history-taking and physical examination, with emphasis on differen- tiation, interpretation and documentation of normal and abnormal findings. A 40-hour precepted experience is included.

NURS 731. Psychopharmacology (3). Basic brain biology, brain disorders and psychopharmacology are reviewed as a basis for assessment and adminis- tration of psychopharmacologic medications and education of clients. Prerequisite: admission to graduate program.

NURS 733. Diabetes Mellitus Nursing (3). Exploration of clinical theories; identifies and stud- ies appropriate nursing systems for clients with dia- betes mellitus. Emphasizes attainment and maintain- ing optimal levels of functioning and the psycholog- ical adjustment of the client and family to a poten- tially 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 mel- litus nursing management. A weekly one-hour sem- inar accompanies the practicum. Open to non-nursing majors.

NURS 750. Workshops in Nursing (1–4). An opportunity for intensive study of special topics related to nursing practice, education, or research. Open to non-nursing majors.

NURS 757. Teaching Strategies for Nursing Education (8). Analysis of teaching strategies for the nurse educator to accommodate the changing health care scene. Teaching methods, including technology, appropriate for a variety of learners and learning environments are discussed. Roles of the nurse edu- cator across the scope of learning environments are investigated: nursing education, in-service, and patients/families/families. Current issues and trends influencing nursing education are explored. The course focuses on the use of research-based evidence to guide teaching strategies. Pre- or corequisite: NURS 723. May be taken by graduate nursing stu- dents or undergraduate nursing students with senior standing.


NURS 775. Health Care Information Systems Practicum (3). Provides an individualized opportunity to apply the concepts/theories of information systems to a health care setting. Includes analyzing existing information programs, identifying applications for automation, and under- taking small-scale development efforts. Pre- or corequisite: NURS 775.

NURS 778. Pathophysiology for Acute and Critical Care (3). Examines pathophysiologic concepts rele- vant to acute and critical care nursing practice. Explores the scientific knowledge base for selected clinical problems in acute care. Emphasizes patho- physiologic mechanisms of disease and the rele- vance 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 nurs- ing. 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 find- ings. Graded S/U. Prerequisites: NURS 701, 702, and departmental consent and admission to one of the NP specializations.

NURS 791. Special Studies in Nursing (1–6). Students engage in extensive study of particular content and skills directly or indirectly related to nursing practice. Repeatable. Open to graduate or undergraduate students. Prerequisite: departmental consent.

NURS 793. Advanced Pathophysiology I (4). Explores in-depth scientific knowledge base rele- vant to selected pathophysiologic states confront- ed in advanced nursing practice. Provides the basis for the foundation of clinical decisions related to diagnostic tests and the initiation of therapeutic reg- imens. Age-specific and developmental alterations are correlated with clinical diagnosis and manage- ment. Application is made through age-appropriate examples and case studies. Prerequisites: admission to graduate nursing program or instructor’s consent.

NURS 795. Applied Drug Therapy (3). Discusses the clinical application of specific categories of drugs commonly encountered in primary care settings. Explains the use of protocols, prescription writing, and the ethical/legal and economic issues surrounding the advanced nurse's role in prescribing and monitoring pharmacologic therapies in the ambula- tory setting. Discusses factors such as age-appropri- ate content related to pharmacokinetics, dosages, expected outcomes, and side effects of the drugs. Addresses first line versus second line drugs, alter- nate drugs, drug interactions, adjusting drug dosages, patient education, and compliance issues related to drug therapy. Explores the nurse's role and responsibility related to data collection, prob- lem identification, and consultation with the
physician. Application is made through age-appropriate case studies. Prerequisites: admission to graduate nursing program and departmental consent.

**NURS 796. Nursing Practicum in Special Settings (1–6).** Opportunity for directed practice in various settings including clinical specialties, nursing administration, nursing education, and consultation. Prerequisite: departmental consent.

**NURS 799. Directed Readings in Nursing (1–2).** Student engages in critical search of the literature in areas related to the profession and practice of nursing. Prerequisite: departmental consent.

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

The following abbreviations are used in the course descriptions; T stands for theory and L for laboratory. For example, 4T; 2L means 4 hours of theory and 2 hours of lab. P stands for practicum/clinical hours; 40P means 40 hours of practicum per week.
The mission of Fairmount College of Liberal Arts and Sciences is to cultivate intellectual curiosity and foster contemplation of the human experience and the natural world. Faculty members are dedicated to creating, expanding, applying, and preserving knowledge, and to introducing students to the scholarship, theories, methods, and perspectives of their diverse disciplines. A liberal arts and sciences education develops transferable analytical skills—the capacity to gather and interpret information, think critically, and communicate effectively—and stimulates a lifelong love of learning that enriches graduates and their communities.

Fairmount College offers undergraduate majors in natural sciences, social sciences, humanities, and programs of professional training. An education in these disciplines helps students develop knowledge and appreciation of our physical and biological world, the arts, and different cultures; and an awareness of civic responsibilities, as well as professional preparation. Fairmount College provides courses in basic skills, as well as general education, and courses required for graduation from other colleges at WSU. These provide students with skills that are intrinsically valuable and often fundamental to professional training and the needs of the workplace.

**Degrees & Certificates Offered**

**Undergraduate**
The Associate of Arts degree requires completion of a minimum of 65 credit hours including 15 hours in residency at Wichita State University and 50 of the 65 credits from liberal arts and sciences departments. This degree must include the 42 credit hours required in the university’s general education program (described in the General Information section of this Catalog), and students must be enrolled in one of the university’s degree-granting colleges. A cumulative grade point average of 2.000 is required for both the degree and for WSU academic work.

Bachelor of Arts degrees are offered in anthropology, biological sciences, chemistry, communication, 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 communication sciences and disorders, 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, 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, gerontology, history, psychology, social work, sociology, and Spanish. The Master of Science (MS) may be obtained in biological sciences, chemistry, and mathematics.

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 (MSW) 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.

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 relevant departmental sections:

- Applied Communication (graduate and undergraduate)—Elliot School of Communication
- Asian Studies—Interdisciplinary Liberal Arts and Sciences
- Corrections; Forensic Criminology; Law Enforcement — School of Community Affairs
- Film Studies—English, Interdisciplinary
- Great Plains Studies (graduate and undergraduate) — Interdisciplinary Liberal Arts and Sciences
- Medieval and Renaissance Studies — English, Interdisciplinary
- Substance Abuse Counselor
- Certification — Psychology
- Nonprofit Management (graduate) — Hugo Wall School of Urban and Public Affairs

Probation and Dismissal Standards
1. Students are placed on probation whenever their cumulative or WSU grade point average falls below 2.000 and they have attempted at least 6 hours at Wichita State University.
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 average remains below 2.000.
4. Students will be dismissed at the end of any semester on probation if they fail to earn a semester grade point average at or above the minimum required, and have a cumulative or overall WSU grade point average also below the minimum required. Students are not academically dismissed at the end of a semester unless they began that semester on academic probation.
5. When dismissed, students may re-enroll only with the permission of the university’s Committee on Admissions and Exceptions, which considers petitions forwarded by the Fairmount College Admissions and Exceptions Committee.

Degree-Bound Exploratory Students
LASAC advisers 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, develop effective college-level study skills, choose an academic major, develop personalized academic and career/life plans, and complete part of the general education requirements. When a student declares a major field of study, an immediate transfer occurs to the college and department that sponsors that program, and an adviser 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. Advising is then provided through the student's academic major department.

Non-Degree-Bound Students
The non-degree-bound category includes students from other colleges who attend WSU for a short time period, high school...
guests who attend classes and earn credit on the WSU campus, and high school students in concurrent enrollment partnerships who earn WSU credit while taking classes in their high schools. Other non-degree students take courses to pursue their education with no immediate degree plans. This may involve self-enrichment, job advancement, career change, skills updating or professional certification. Students in this latter category are admitted as open admissions students. (See the information in Undergraduate Admissions section of the catalog.) LASAC advisers can assist students in defining their academic goals and in making the transition to a degree-earning status where that is appropriate. Students in this category are not eligible for financial aid.

Application for Graduation
Students apply for graduation when they have completed 80 hours of coursework that counts toward the degree. Applying at this time facilitates scheduling required courses for the three or four semesters that typically remain before graduation.

Application process for the BA and BS degrees: Make an appointment in the LASAC to complete the senior form. (The senior form is a written list of remaining requirements.) LASAC advisers complete and sign the general education portion of the form. The adviser in the academic major department completes and signs the academic major portion of the form. Also, file a degree card, available in the LASAC. Both of these documents are required for graduation.

Application process for students earning the Bachelor of General Studies Degree: Students declare their intention to earn this degree and create a plan of study for completion no later than 30 hours before the degree is granted. Students are advised by the academic department of the primary concentration or by an LASAC adviser. Students submit the plan of study, the senior form, and the degree card to the LASAC. Additional BGS requirements are listed under Section XII BGS: Area of Concentration in the LAS section of this catalog. For all degrees, there is an early deadline date to ensure that the student’s name appears in the official Commencement Program. Senior forms and degree cards are available in the LASAC, 115 Grace Wilkie Hall.

Assessment of Academic Programs
Fairmount College participates in a university-wide program to assess the effectiveness of all curricula and instruction within the university. Individual departments within Fairmount College have established assessment strategies which are shared with their students. Assessment activities involving students occur throughout enrollment.

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 which offers cross-listed courses provides a separate catalog description. When enrolling in cross-listed courses, students—in consultation with their advisers—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 is the only college at WSU to award Life Experience credit. LAS requires that the learning from life experience fits the approved curriculum of the college. Students must be fully admitted to WSU. The College of Liberal Arts and Sciences is conservative in protecting the autonomy of the faculty and the goals of the curriculum. Credit for life experience is granted only when a student's learning from life experiences duplicates the content of a course described in the Catalog. Students pay for Life Credit on a course by course basis. The student begins by contacting an adviser in the LASAC to obtain the Credit for Life Experience form. The student contacts the faculty member who teaches the course that duplicates the student’s life experience. That faculty member must certify that the life experience is the same as the content of the course. The student returns the signed form to the LASAC, which facilitates the process for student payment and posting the credit to 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 baccalaureate degree requirements.

Further information is available in the Office of Cooperative Education and Work-Based Learning, 223 Grace Wilkie Hall, the Academic Information section of the Catalog, or wichita.edu/coop.

Academic Honesty and Code of Conduct
The faculty of Fairmount College strongly endorses the statement on academic honesty, the student code of conduct and the appeals procedure outlined in the Student Handbook.

Graduation Requirements
Bachelor of Arts, Bachelor of Science, and Bachelor of General Studies
The following Fairmount 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 Fairmount College. Courses taken to fulfill these requirements also satisfy the university’s general education distribution requirements.
1. Basic skills—The following courses must be completed in the first 48 Fairmount 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;
2. Upper-Division—at least 45 credit hours of credit in courses numbered 300 or above;
3. Residence—at least 30 credit hours of course credit at Wichita State. At least 24 of the last 30 credit hours or 50 of the last 60 credit hours must be completed at Wichita State;
4. Four-year institution—a minimum of 60 credit hours must be completed in a four-year, degree-granting college or university; and
5. 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 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 hours 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 POLS 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 sciences 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 sciences 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.

Social and Behavioral Sciences anthropolog-y, 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 sciences 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, or 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 sciences).

VI. Issues and Perspectives Courses. 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 must 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 who wish to fulfill their foreign language requirement with American Sign Language may seek permission to do so by submitting a written request to the LAS exceptions committee. This request should include a justification and a list of the courses to be taken. If the committee approves the plan, a copy is put in the student’s file and is monitored by the student’s adviser as well as the academic advising specialist; and

5. 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 toward humanities requirements in the university general education program, will not fulfill a humanities course requirement for Fairmount 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 Fairmount 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 department. 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 Fairmont 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 adviser. 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 adviser 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 and at least 9 in each of the two allied departments. Twelve of the 36 hours must be upper-division, and the first two departments must be LAS. Students may work with an academic adviser in developing an appropriate field major or may use one of the predesigned field majors indicated below. Students must meet BA graduation requirements for all field majors except biochemistry and chemistry/business which lead to the BS degree.

Biochemistry. Biochemistry is a rapidly growing science in which many important advances have been made in the last two decades. It requires both an understanding of biological processes and a knowledge of sophisticated techniques of chemistry and physics. The field major in biochemistry is designed to prepare students for employment or further study in this area.

Students choosing this field major should seek the advice of an adviser in the department of biological sciences or the department of chemistry as early as possible. Both the biological sciences and chemistry sections of the Catalog provide complete descriptions of this major.

Chemistry/Business. See the chemistry section of the Catalog for complete description.

Classical Studies. Classical studies is an interdisciplinary program designed to give students a sense of continuity and to interpret the values, ideas, and ideals of antiquity as shown in its history, art, mythology, literature, political institutions, and religions. The major also serves as a sound preparation for areas in which sensitivity to language and ideas is an important tool—classics, linguistics, ancient history, art history, archaeology, comparative literature, law, religion, and Near Eastern studies.

The major consists of 36 hours which must be selected from a list of approved courses, except that courses of independent study in one of the departments of the field major may count toward the major if the subject matter is at least half classical. For further information and a list of approved courses, contact the department of modern and classical languages and literatures.

International Studies. In a rapidly globalizing world, the demand for college graduates who have a deeper understanding of different regions and cultures of the world is growing. Many employers look favorably on prospective employees with language skills and international knowledge.

The international studies field major is an interdisciplinary degree with courses required in multiple departments. Students have the option to follow an area studies track or a business administration track. Both require students to focus on a particular region of the world, including language courses for that region. The core courses for each track vary, with the area studies track focusing more on historical, political, and cultural relations, and the business administration track focusing on international business courses. The international studies degree is a BA degree in the Fairmount College of Liberal Arts and Sciences. There is also an international studies minor available.

There are many career opportunities that can be pursued with an international studies degree including possible employment with federal and state government executive agencies, multinational corporations, law firms, international organizations such as the United Nations, non-profit organizations, and public and private schools. An international studies degree can also prepare students for a course of study in graduate school.

Students interested in pursuing a major or minor in international studies should contact the international studies advisers in the departments of political science or history, or seek additional information online at wichita.edu/is.

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 program 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 futures.
With the assistance of the BGS adviser 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 “focal” 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 LAS upper-division hours must be included in the concentration.

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.

XIII. 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.

Communication Sciences and Disorders
Students desiring an emphasis in applied language study through Fairmount College should see requirements and curriculum for a major in communication sciences and disorders listed in the College of Health Professions section of the Catalog.

Special Preprofessional Programs
Advisers in the LASAC or in various preprofessional academic departments provide specific information regarding courses and requirements.

Prelaw
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. LAS academic advisers offer prelaw students assistance in contacting appropriate academic departments.

Premedical Professions—Medicine, Dentistry, Optometry, Pharmacy, Veterinary Medicine, Podiatry, Chiropractic Medicine

Academic advising for premedical professions is coordinated through the LASAC. A four-year bachelor’s degree is required for admission to medical and osteopathic schools and is strongly encouraged for other premedical professional programs. Any academic major is acceptable, as long as the degree includes the prerequisite core of courses in math and sciences. Medical and professional schools expect candidates to demonstrate the intellectual and analytical and problem-solving skills necessary to succeed in medical school. Students are strongly advised to balance coursework in the natural sciences with coursework in humanities and social sciences. The general education component of a liberal arts degree provides a sound foundation for demonstrating an interest in and knowledge of a diverse and global society. Candidates should also consider coursework in areas such as anthropology, communication, economics, ethics, logic, psychology, sociology, and statistics.

Some professional programs grant admission on the basis of a three-year preparatory program. Wichita State students on the three-year program may be granted the bachelor’s degree if they have taken 94 credit hours (the last 30 must be at WSU) within the required fields of study and have completed general education requirements for the degree; earned 188 credit points with no more than 20 hours of D grade work; passed the first year of a medical professions program and qualified for admission to the second year. Candidates must apply for the degree through the LASAC.

Preparation for Secondary Education
A professional teaching field in foreign language Pre-K through 12 may be obtained through the College of Liberal Arts and Sciences. A professional teaching field for middle and secondary school teachers is offered through the College of Education as are teaching fields in all other areas.

Anthropology (ANTH)
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, archaeologist, 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 abilities to interact cross-culturally.

The program offers a Bachelor of Art (BA) degree major, an interdisciplinary field major, and a minor in anthropology. The 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 Fairmount College and across colleges. Elective and general education courses in anthropology seek to broaden the student’s Fairmount College experience by offering them an opportunity to appreciate the strength of human cultural and biological history and diversity through socio-cultural, biocultural, 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 credit hours, 9 credit hours of which must include ANTH 101, Biological Anthropology; ANTH 102, Cultural Anthropology; and ANTH 103,
Introduction to Archaeology. Students must also take an additional three courses (9 credit hours) including one upper-level biological anthropology course (chosen from ANTH 356, 555, 557, 597R, and 600), one upper-level cultural anthropology course (chosen from ANTH 303, 307, 312, 318, 327, 344, 361, 388, 506, 511, 515, 516, 522, 526, 528, 540, and 542), and one upper-level archaeology course (chosen from ANTH 305, 313, 335, 508, 538, 611, 612, and 613). All majors must take a course in method and theory (ANTH 647). An additional 9 credit 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 credit 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 credit hours in anthropology (including at least 6 hours of upper-division work) chosen in consultation with the student's anthropology adviser. Students minoring in anthropology are encouraged to take ANTH 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 ANTH 101, 102, 103, and at least 9 credit hours of upper-division coursework. To complete the field major, students must take 9 credit 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 adviser.

Lower-Division Courses

> ANTH 100. Anthropology of American Culture (3). *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.

> ANTH 101. Biological Anthropology (3). *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).

> ANTH 102. Cultural Anthropology (3). *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.

> ANTH 103. Introduction to Archaeology (3). *General education introductory course.* Introduces the philosophy, theory, tools, and techniques of the practicing archaeologist. Illustrates the role of archaeology in understanding cultural change through time, and explains how archaeological method draws on natural sciences and humanities to demonstrate how students learn about past cultures from the material they left behind.

ANTH 106. Biological Anthropology Laboratory (1). 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. Pre- or corequisite: ANTH 101.

ANTH 107. Cultural Anthropology Laboratory (1). Students participate in organizing, collecting, and analyzing data derived from cultural anthropological investigations. Pre- or corequisite: ANTH 102.

ANTH 150. Workshop in Anthropology (1–3). Provides specialized instruction using a variable format in an anthropologically relevant subject. Repeatable for credit.

ANTH 165. The Blues: Art and Culture (3). 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.

> ANTH 200. Intercultural Relations (3). *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

> ANTH 303. World Cultures (3). *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.

> ANTH 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.

> ANTH 307. Peoples of Africa (3). *General education further study course.* Describes and analyzes the culture areas of Africa south of the Sahara Desert from ethnohistoric and ethnographic sources.

> ANTH 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.

> ANTH 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.

> ANTH 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.

> ANTH 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.

> ANTH 344. Ecological Anthropology (3). *General education further study course.* Investigates the relationships of people both to their physical and socio-cultural environments, including the effects of these relationships on economic activities, social organizations, and beliefs and behaviors emphasizing the evolutionary development of survival strategies.

ANTH 350. Workshop in Anthropology (3). Focuses on anthropological topics. Repeatable for credit.

> ANTH 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 transcriptions of foreign languages) and principles of phonology, morphology, and syntax and semantics. Prerequisite: LING 151.

> ANTH 356. 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: ANTH 101 or BIOL 210 or equivalent.

> ANTH 388. Cognitive Anthropology (3). *General education further study course.* Concentrates on a transcultural 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.
ANTH 397. Topics in Anthropology (3). Studies current issues in anthropology. Content varies with interests of instructor. Consult current Schedule of Courses for topics.

ANTH 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. Uses the archaeological, biological, linguistic, and sociocultural perspectives to better understand overseas cultures. Prerequisite: departmental consent.

ANTH 481. Cooperative Education in Anthropology (1–4). Provides practical experience that complements the student's academic program. Consultation with, and approval by, an appropriate faculty sponsor are necessary. Offered Cr/NCr only.

ANTH 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

ANTH 502. Introduction to Archaeological Laboratory Techniques (1–3). Maximum of 3 hours. An introduction to the laboratory processing of archaeology materials. Direct experience in all phases of preparing excavated materials for analysis, including cleaning, restoring, preserving, numbering, and cataloging ceramic and lithic artifacts and other remains. Prerequisite: ANTH 305.

>ANTH 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.

>ANTH 508. Ancient Civilizations of the Americas (3). General education further study course. A cultural survey of the Aztec, Maya, and Inca. Prerequisite: instructor's consent.

ANTH 509. Cultures of Ancient Mexico (3). Archaeological and ethnohistoric survey of the numerous civilizations of ancient Mexico from earliest inhabitants to the period of the Spanish invasion. The cultures covered include Olmec, Teotihuacan, Zapotec, and Aztec. Explores the environmental, social, and political conditions that led to the rise and fall of societies across Mexico. Prerequisite: ANTH 103.

ANTH 510. Archaeology of the Ancient Maya (3). Development of the tropical lowland Maya civilization in Mesoamerica from the origins of agriculture through the Spanish Conquest. Topics include the rise of divine kingship, the Maya calendar and hieroglyphic writing, interstate conflict and warfare, and Maya religion. Explores archaeological, ethnohistorical, and linguistic data and accounts. Prerequisite: ANTH 103.

>ANTH 511. The Indians of North America (3). General education further study course. A survey of tribal societies and native confederations north of Mexico from the protohistoric through the historic period. Prerequisite: ANTH 102.

>ANTH 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.

>ANTH 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.

ANTH 519. Applying Anthropology (3). The application of anthropological knowledge in the solution of social problems in industry, public health, and public administration. Prerequisite: ANTH 102.

>ANTH 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: ANTH 102.

ANTH 526. Social Organization (3). A survey of the varieties of social organization among peoples throughout the world. Deals with family systems; kinship; residence patterns; and lineage, clan, and tribal organizations. Prerequisite: 6 hours of anthropology.

>ANTH 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.

ANTH 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 beginning of the Archaic Tradition, and of the role of cultural contacts between Eastern Asia and North America. Prerequisite: ANTH 305.

ANTH 542. Women in Other Cultures (3). Cross-listed as WOMS 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.

ANTH 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: ANTH 101 or BIOL 210 or equivalent.

ANTH 557. Human Osteology (3). Deals with human skeletal and dental materials with applications to both physical anthropology and archaeology. Lecture and extensive laboratory sessions; includes bone and tooth identifications, measurement and analysis, and skeletal preservation and reconstruction. Individual projects are undertaken. Prerequisite: ANTH 101 or equivalent.

ANTH 597. Topics in Anthropology (3). Detailed study of topics in anthropology. Content varies with interest of instructor. Consult Schedule of Courses for current topic.

ANTH 600. Forensic Anthropology (3). Cross-listed as CJ 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: ANTH 101 or equivalent.

ANTH 602. Archaeological 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: ANTH 502 and instructor's consent.

ANTH 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.

ANTH 607. Museum Exhibition (3). Contemporary philosophy of exhibition design and the application of recent concepts to the planning and installation of an exhibit. Prerequisite: ANTH 606 or instructor's consent.

ANTH 609. Biological Anthropology Laboratory Analysis (1–3). Analyzes biological anthropology materials including human and non-human skeletal material of both forensic 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.

>ANTH 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.

ANTH 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.

>ANTH 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.

ANTH 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.

**ANTH 651. Language and Culture (3).** Cross-listed as LING 651 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.

**ANTH 690. Field Methods in Anthropology (3–6).** 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 specified summer session and varies from year to year. Prerequisite: instructor's consent.

**ANTH 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.

**ANTH 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, including ANTH 647 or equivalent as determined by the graduate coordinator.

**ANTH 750. Workshop (1–4).** Short-term courses focusing on anthropological problems. Prerequisite: instructor's consent.

**ANTH 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 ANTH 101 or instructor's consent).

**ANTH 770. Advanced Readings (2–3).** Provides opportunities for additional student research and reading on concepts and topics covered in the core graduate courses, ANTH 736, Advanced Studies in Archeology and Ethnohistory; ANTH 746, Advanced Studies in Cultural Anthropology; and ANTH 756, Advanced Studies in Biological Anthropology. Repeatable up to 6 hours. Prerequisites: full graduate standing, completion of one core course (ANTH 736, 746, or 756), and departmental consent.

**ANTH 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/NCr only. Repeatable for credit. May not be used to satisfy degree requirements. Prerequisite: graduate status.

**ANTH 798. 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: ANTH 736, 746, or 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 career as possible for assignment to a faculty academic adviser. Candidates for all degrees are required to take the Field Achievement Test in Biology during the senior year and contribute examples of their coursework to the department's assessment program. All candidates must maintain a grade point average of 2.000 in all biological sciences coursework.

**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 credit hours of biological sciences coursework; up to 40 credit 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 credit hours of biological sciences coursework; up to 50 credit hours may be taken for credit. Candidates for either degree must complete BIOL 210, 211, 418, 419, 420; either BIOL 497 or 499; and one course chosen from the following: BIOL 330, 502, 503, 523, 524, or 528. Candidates for either degree must also complete CHEM 211, 212, and 531. Candidates for the BS degree must also complete 15 additional elective hours from among those approved for the emphasis; CHEM 211, 212, and 531; and PHYS 213.

**Minor in Biological Sciences.** Candidates for a minor in biological sciences must complete BIOL 210, 211, and any two of the following: BIOL 418, 419, or 420, or one course chosen from the following: BIOL 330, 502, 503, 523, 524, or 528.

**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. Required courses are BIOL 210, 211, 419, and 420; CHEM 211, 212, 523, 531, 532, 662, 663, and 664; PHYS 213 and 214; and MATH 112 (or 111 and 123). Also required are BIOL or CHEM 666 and 669 (two enrollments) and 21 hours of biochemistry electives chosen in consultation with a biochemistry academic adviser.

**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 adviser. The major requires the completion of BIOL 210, 211, 330, 418, 419, 420; either BIOL 497 or 499; and one course chosen from the following: BIOL 330, 502, 503, 523, 524, or 528. Candidates for either degree must also complete CHEM 211, 212, 531, 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 credit hours of biological sciences coursework. A major in biological sciences leading to the BS with an ecological/environmental/organismal emphasis requires 50 credit hours of biological sciences coursework. Candidates for either degree must complete BIOL 210, 211, 418, 419, 420; either BIOL 497 or 499; and one course chosen from the following: BIOL 330, 502, 503, 523, 524, or 528. 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 adviser or departmental offices for approved courses); CHEM 211, 212, and 531. Candidates for the BS degree must also complete 15 additional elective hours from among those approved for the emphasis; CHEM 211, 212, and 531; and PHYS 213.

**Minor in Biological Sciences.** Candidates for a minor in biological sciences must complete BIOL 210, 211, and any two of the following: BIOL 418, 419, or 420, or one course chosen from the following: BIOL 330, 502, 503, 523, 524, or 528.

**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. Required courses are BIOL 210, 211, 419, and 420; CHEM 211, 212, 523, 531, 532, 662, 663, and 664; PHYS 213 and 214; and MATH 112 (or 111 and 123). Also required are BIOL or CHEM 666 and 669 (two enrollments) and 21 hours of biochemistry electives chosen in consultation with a biochemistry academic adviser.

**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 adviser. The major requires the completion of BIOL 210, 211, 330, 418, 419, 420; either BIOL 502 or 503; and either BIOL 523, 524, or 527. Also required are CHEM 211, 212, 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 adviser 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

>BIOL 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 any biology course beyond the 100-level prior to enrollment. Suitable for general education requirements, but cannot be used for credit toward the major or minor in biological sciences.

>BIOL 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 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 BIOL 107 is recommended for students needing general education credit for a natural sciences 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: BIOL 104, 105, 106 and/or 107. Students wishing to repeat BIOL 105 (no longer offered) should enroll in BIOL 106 and 107.

>BIOL 220. Introduction to Microbiology (4). 3R; 2L. For students in allied health fields. Introduces eucaryotic and procaryotic microorganisms and viruses and develops an understanding of microbial growth, including the use of antiseptics, disinfectants, and antibiotics; DNA as the genetic material including DNA replication, protein synthesis, gene regulation, mutation and gene exchange in bacteria; applied and environmental microbiology including water and sewage treatment and food microbiology; resistance to infection, basic mechanisms of pathogenesis, and selected microbial diseases. The lab reinforces concepts learned in lecture and helps the student gain an understanding of and develop competence in basic microbial techniques including the safe handling of microorganisms. 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 BIOL 120 (no longer offered) and BIOL 220. Students wishing to repeat BIOL 120 may enroll in this course. Prerequisite: CHEM 101 or 103 or 211.

>BIOL 223. Human Anatomy and Physiology (5). 4R; 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 BIOL 225 or 226 (both no longer offered) may not receive credit for prior enrollment in these courses and subsequent enrollment in BIOL 223. Students seeking to repeat BIOL 225 or 226 may enroll in this course, subject to the credit limitations indicated above. Prerequisite: CHEM 101 or 103 or 211.

Upper-Division Courses

>BIOL 309. Foundations of Human Heredity (3). General education further study course. 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 the natural sciences and cannot carry credit toward a biological sciences major or minor.

>BIOL 310. Human Reproduction: Issues and Perspectives (3). General education issues and perspectives course. 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: BIOL 106, 210, or 223.

>BIOL 370. Introductory Environmental Science (3). General education issues and perspectives course. Examines the relationship of the earth’s human populations to resource use/depletion and to the impact of human activities on the environment. Introduces and uses basic concepts relating to energy, populations, and ecosystems as a basis for understanding environmental problems on the local, regional, national, and international levels.

Courses for Graduate/Undergraduate Credit

>BIOL 518. Biology of Aging (3). Cross-listed as GERO 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
(Satisfies the requirements for the major)

Lower-Division Courses

>BIOL 210. General Biology I (4). 3R; 2L. General education introductory course. Introduces fundamental concepts in cellular and molecular biology. Includes basic biological chemistry; cell and membrane structure and function; aerobic and anaerobic respiratory pathways; intermediary metabolism and photosynthesis; regulation of cellular activities at genetic and protein levels; cellular reproduction; mechanisms of inheritance at molecular, organismal, and population levels; phylogeny; and evolution. The laboratory develops skills in the experimental method, basic laboratory procedures, and written communication of scientific information using topics related to the lectures. Students may not receive credit for both BIOL 204 (no longer offered) and BIOL 210. Students wishing to repeat BIOL 204 may enroll in this course, subject to the credit limitations indicated above. Corequisite: CHEM 211 recommended.

>BIOL 211. General Biology II (4). 3R; 2L. Introduces fundamental concepts of biology as they apply to levels of organization from organisms through ecosystems. Focuses on morphology, physiology, diversity, and ecology of organisms. Introduces growth and anatomy, transport of materials, regulatory mechanisms, and reproduction in plants; and nutrient procurement, circulation, neural and hormonal regulation, reproduction, immune responses and behavior in animals. Principles of ecology presented include population growth and regulation; interspecific interactions and food webs; and energy flow and material cycling through ecosystems. The laboratory includes a survey of organismal diversity including prokaryotes, protists, fungi, plants, and animals; and emphasizes evolutionary trends in the plant and animal kingdoms. Students may not receive credit for both BIOL 205 (no longer offered) and BIOL 211. Students wishing to repeat BIOL 205 may enroll in this course, subject to the credit limitations indicated above. Prerequisite: BIOL 210. Concurrent enrollment in CHEM 212 is recommended.

Upper-Division Courses

>BIOL 305. Introductory Plant Physiology (5). 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 212.

BIOL 330. General Microbiology (5). 3R; 6L. Introduces the structure, function, systematics, ecology, and population dynamics of microorganisms emphasizing prokaryotes. Prerequisites: BIOL 204 or 211 and CHEM 212.

BIOL 418. General Ecology (4). 3R; 3L. Principles underlying the interrelationships of living organisms and their environments 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 212.

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. Prerequisite: BIOL 204 or 211 and CHEM 212.

BIOL 420. Molecular Cell Biology (4). 3R; 2L. Concerned primarily with the molecular biology of eukaryotic cells. Covers individual cellular components (organelles) and processes including 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 212.

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/NCr only.

BIOL 497. Biology Colloquium (1). 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. S/U grade only. Prerequisites: two of the following: BIOL 418, 419, 420.

BIOL 498. Undergraduate Independent Reading (2). 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. S/U grade only. 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). 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. S/U grade only. 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 212.

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 212, or instructor's consent.

BIOL 523. Freshwater Invertebrates (4). 2R; 4L. Emphasizes the ecology, taxonomy, 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 collection 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 211 and CHEM 212.

BIOL 524. Vertebrate Zoology (4). 2R; 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 212; BIOL 527 is also recommended.

BIOL 525. Comparative Anatomy (5). 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 212.

BIOL 526. Endocrinology (4). 2R; 4L. Studies 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 212.

BIOL 530. Applied and Environmental Microbiology (3). A characterization of the roles of microbes in natural and man-made environments. Discussions of microbial ecology and communities, interrelationships with higher organisms, biogeochemical 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 212.

BIOL 532. Entomology (4). 2R; 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 develop proficiency in a specific taxon by performing an individual systems project. Prerequisites: BIOL 204 or 211 and CHEM 212.

BIOL 534. Mammalian Physiology (3). An organ systems approach to mammalian—primarily human—physiology. Emphasizes nervous 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 531, 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. Pre- or corequisite: 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 212. BIOL 420 recommended.

BIOL 560. Plant Ecology (2). 2R. An examination of the relationship of plants to their environment at the organismal, population, community, and ecosystem levels. For graduate credit, a student must prepare and present a 30-minute lecture on one of the topics covered in this course. Prerequisites: BIOL 418 and CHEM 212 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/laboratory project orally, as well as in writing. Prerequisite: prior or current enrollment in BIOL 560.
BIOL 570. Conservation Biology (3). Examines the application of fundamental concepts in ecology, evolutionary biology and genetics to the preservation of biological diversity at the levels of genotypes, species and ecosystems. Topics covered include 1) how biologists quantify biological diversity, 2) threats to biological diversity, 3) tools used to evaluate the level of threat to individual species and to design species management plans, and 4) concepts and considerations for preserve design. Decisions related to biodiversity conservation often have social and economic consequences, students explore these complexities through case studies. Skills developed in this course include critical reading of primary scientific literature, scientific writing and oral presentation. Prerequisite: BIOL 418.

BIOL 572. Computer Methods in Biology (3). Includes mathematical modeling of biological systems, tools for recording and retrieving experimental results, computer-aided instruction, Internet and online science resources, software for scientific publication including digital photo-documentation and reference managers for bibliographies. Students select a biology topic of interest, study non-statistical and computer approaches previously used, and develop their own approach. Half the course is lectures and demonstrations and half is individual student projects. Graduate students are expected to have had prior experience with the primary literature and be prepared to execute a more sophisticated library research project. Prerequisite: one of the following: BIOL 418, 419, 420, or instructor's consent.

BIOL 573. Statistical Applications in Biology (3). Supplements STAT 370 by providing experience with practical applications of statistical theory to biological data. Includes computations on data derived from both the primary literature and independently designed research projects. Emphasizes the design of experiments to answer specific hypotheses, the treatment of non-normally distributed data sets and nonhomogeneous experimental test units, and the use of packaged computer programs for certain statistical tests. Access to calculators with at least two memory banks is strongly encouraged. Students earning graduate credit complete an additional statistical analysis assignment involving the use of the computing facilities. Prerequisite: STAT 370.

BIOL 575. Field Ecology (3). 9L. Techniques for analysis of systems consisting of living organisms and their environments. Field trips are required. Students earning graduate credit perform an individual project on comparative community structure and report the results as a technical paper. Prerequisite: BIOL 418 or instructor's consent.

BIOL 578. Aquatic Ecology (4). 2R; 4L. Introduction to the biological and physical processes that operate in lakes, streams, and estuaries. Requires assigned readings, individual projects, and field trips. Students earning graduate credit investigate and compare the characteristics and properties of two freshwater ecosystems or investigate a specific taxon or trophic level in a freshwater ecosystem. The results of this investigation are reported as a technical paper. Prerequisite: BIOL 418 or instructor's consent.

BIOL 590. Immunobiology (3). The nature of antigens and antibodies and their interactions. Includes cellular and humoral aspects of immunologic phenomena. 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 and CHEM 531.

BIOL 595. Avian Biology (3). Presents birds (class Aves) as models in contemporary animal behavior, physiological ecology, evolutionary biology, population ecology, and conservation. The laboratory portion of the course teaches field identification of resident and migratory species by sight, song and call note on frequent field trips to a diversity of habitats, and culminates in a field survey of avian species diversity and abundance conducted by each student. Additional laboratory topics are bird banding, determination of age, sex, body lipid reserves, morphological measurement, and population census. Student-led discussions of current papers in avian biology 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 212, or instructor's consent.

BIOL 610. Topics in Botany (3–4). Selected offerings in botany. Consult the Schedule of Courses for current offering(s). 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. Repeatable. Prerequisites: BIOL 204 or 211, CHEM 212 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 204 or 211, CHEM 212 and instructor's consent.

BIOL 630. Behavioral Ecology (3). Studies the biological basis 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 (3–4). Selected offerings in zoology. Consult the Schedule of Courses for the current offering(s). 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. Repeatable. Prerequisites: BIOL 204 or 211, CHEM 212 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 211, 330.

BIOL 660. Topics in Microbiology (2–3). See BIOL 610. Prerequisites: BIOL 330 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 and discussing 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 663.

BIOL 669. Research in Biochemistry (2). Cross-listed as CHEM 669. 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. S/U grade only. Prerequisites: BIOL 420 and CHEM 662 or 663, and CHEM 664 and instructor's consent.

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 730. Cancer Biology (3). The basic mechanisms of carcinogenesis are 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 737. Aquatic Toxicology (3). 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 undergraduates or graduate students interested in advanced training in toxicology. Prerequisites: BIOL 418 or equivalent and CHEM 531 or equivalent, or instructor's consent.

BIOL 738. Plant and Animal Interactions (3). Develops and expands basic ecological and evolutionary concepts presented in earlier biology courses including natural selection, coevolution, population growth, and factors structuring ecological communities. Applies these concepts to the study of herbivory, pollination by animals, and seed dispersal by animals. Designed to improve students' abilities to read current primary scientific literature critically with particular emphasis on identifying and evaluating evidence for hypotheses in ecology and
evolutionary biology. Introduces the peer review process and hones students' scientific writing skills. Students write a mini-review article of a current hypothesis in the field of plant-animal interaction. An oral presentation based on the findings of the mini-review are also required. Prerequisites: BIOL 418 or equivalent general ecology course.

BIOL 740. Topics in Graduate Biology (2–4). Lecture, laboratory, field techniques, selected readings, or discussion course pertaining to a specific biological topic not available in the regular curriculum. May include oral presentation(s) and/or written paper(s). Topics are developed by individual faculty members and reflect current topics, in-depth analysis, and biological specialities. May be taken more than once for credit up to 6 hours. Prerequisites: any two of the following three courses: BIOL 418, 419, 420; and instructor's consent.

BIOL 760. Experimental Molecular Biology (4). 2, 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 gonadotropin-releasing hormone, the glycoprotein hormones, luteinizing hormone, follicle-stimulating hormone, choric gonadotropin, thyroid-stimulating hormone, steroid hormones, thyroid hormone, activin/inhibin, prostaglandins, insulin, and growth hormone. Mostly lectures covering signal transduction pathways. Students write brief summaries of recent research papers related to the current week's lecture topics. Each student makes 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 780. Molecular Genetics (3). Studies the physiochemical 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.

BIOL 797. 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.

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—premedicine, Bachelor of Arts (BA) in chemistry, biochemistry field major (BS), and chemistry/business field major (BS).

Bachelor of Science in Chemistry
This program requires CHEM 211, 212, 514, 523, 524, 531, 532, 546, 547, 548, 615, and 616; either 661 or both 662 and 663 wherein 663 fulfills 3 of the 4 additional hours of professional elective courses required from category (a); 2 credit hours of 690; and their necessary prerequisites, including BIOL 210, MATH 112, 242, 243, and 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 600 through 799 excluding 700 and 701; (b) BIOL 419, 420, or 590 and their necessary prerequisites; (c) mathematics courses with MATH 344 prerequisite or MATH 555; (d) physics courses with PHYS 314 prerequisite; (e) one academic year of German or French; and (f) other courses as approved by the Undergraduate Affairs Committee.

Biochemistry Option: This program requires CHEM 211, 212, 523, 524, 531, 532, 546, 547, 548, 615, 616, 662, 663, 664, 2 credit hours of 690, and BIOL 420, and their necessary prerequisites, including BIOL 210, MATH 112, 242, 243, and 344; and PHYS 313, 314, 315, and 316, or their equivalents.

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 use every opportunity to develop competence in technical writing and oral communication.

The curriculum for the BS in chemistry (either option) 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 adviser for details.

Bachelor of Science in Chemistry—Premedicine
Students in premedical, predental, preveterinary, prepharmacy, preoptometry, or other preprofessional programs may desire this option for which the following courses are required: CHEM 211, 212, 523, 531, 532, 690, 662, and 663 and their necessary prerequisites; MATH 242 and a one-year sequence of physics courses above 200; 9 additional credit hours of chemistry courses numbered above 500 (such as CHEM 514, 524, 546*, 605, 664, and 1 hour of 690); BIOL 210, 211, and an advanced biology course selected from BIOL 330, 419, 420, 527; or both 534 and 535. 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.*CHEM 546 has a prerequisite of MATH 344.

Bachelor of Arts in Chemistry
This degree requires CHEM 211, 212, 523, 524, 531, 532, 546, 547, and 548 and their necessary prerequisites, including MATH 112, 242, 243, and 344 and one year of physics (PHYS 313, 314, 315, and 316) or their equivalents. Students who wish to take biochemistry or inorganic chemistry may satisfy the BA requirements by substituting CHEM 514 and 661 for either CHEM 524 or 547 and 548, or by substituting CHEM 662, 663, and 664 for 524, 547, and 548. This degree requires foreign language (5 hours beyond 111–112 in one language or equivalent to 112 in two languages).

Students who meet the requirements of the BA program may be certified by the American Chemical Society if they also take CHEM 514, 524, 547, 548, 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 211, 212, 523, 531, 532, 662, 663, and 664, PHYS 213 and 214; and MATH 112 (or 111 and 123). Also required are BIOL or CHEM 666 and 669 (two enrollments), and 21 hours of biochemistry electives chosen in consultation with a biochemistry academic adviser.

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 CHEM 211, 212, 531, 532, 544, or 546, and either 601 or both 602 and 606; MATH 144 or 242; and 30 hours of business courses (ACCT 210 and 220; ECON 201 and 202; BLAW 431*; FIN 340*; MGMT 360*; and MKT 300*, 405*, and 608*). Students selecting this option should contact the chairperson of the department of chemistry as early as possible for advice.

*Denotes an upper-division course requiring permission from the Barton School of Business prior to enrollment.

**Minor.** The chemistry minor consists of at least 16 hours of chemistry courses and must include CHEM 211, 212, and at least 6 hours selected from the following: CHEM 514, 523, 524, 531, 532, 544, and 546. A 2.00 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

#### Bachelor of Science

<table>
<thead>
<tr>
<th>Course</th>
<th>Hrs.</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHEM 211, 212</td>
<td>10</td>
</tr>
<tr>
<td>CHEM 514</td>
<td>3</td>
</tr>
<tr>
<td>CHEM 531, 532</td>
<td>10</td>
</tr>
<tr>
<td>CHEM 523, 524</td>
<td>8</td>
</tr>
<tr>
<td>CHEM 546, 548</td>
<td>6</td>
</tr>
<tr>
<td>CHEM 547</td>
<td>2</td>
</tr>
<tr>
<td>CHEM 615</td>
<td>3</td>
</tr>
<tr>
<td>CHEM 616</td>
<td>2</td>
</tr>
</tbody>
</table>

Either CHEM 661 or both 662 and 663* 3 or 6

Chem 690                                    2

BIOL 210                                  4

PHYS 313, 314, 315, 316                    10

MATH 112, 242, 243, 344                  18

Professional electives* 4 or 1

*If both CHEM 662 and 663 are taken, only 1 hour of professional electives is required.

#### Representative Course Sequence

**Freshman**

<table>
<thead>
<tr>
<th>First semester</th>
<th>Hrs.</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHEM 211 General Chemistry I</td>
<td>5</td>
</tr>
<tr>
<td>MATH 112 Precalculus Mathematics*</td>
<td>5</td>
</tr>
<tr>
<td>ENGL 101 College English I</td>
<td>3</td>
</tr>
<tr>
<td>COMM 111 Public Speaking</td>
<td>3</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>16</td>
</tr>
</tbody>
</table>

Not needed if 2 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 semester</th>
<th>Hrs.</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHEM 212 General Chemistry II</td>
<td>5</td>
</tr>
<tr>
<td>MATH 242 Calculus I</td>
<td>5</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>10</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Sophomore</th>
<th>Hrs.</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHEM 531 Organic Chemistry I*</td>
<td>5</td>
</tr>
<tr>
<td>MATH 243 Calculus II</td>
<td>5</td>
</tr>
<tr>
<td>PHYS 313 Physics for Scientists I</td>
<td>4</td>
</tr>
<tr>
<td>ENGL 20, 22 or other, English Literature</td>
<td>3</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>17</td>
</tr>
</tbody>
</table>

*CHEM 514, 516, and 523 all have CHEM 112 as a prerequisite and can be taken in any order.

<table>
<thead>
<tr>
<th>Second semester</th>
<th>Hrs.</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHEM 523 Organic Chemistry II</td>
<td>5</td>
</tr>
<tr>
<td>PHYS 314 Physics for Scientists II</td>
<td>4</td>
</tr>
<tr>
<td>PHYS 315 University Physics Lab I</td>
<td>1</td>
</tr>
<tr>
<td>MATH 344 Calculus III</td>
<td>3</td>
</tr>
<tr>
<td>A general education introductory course in social sciences</td>
<td>3</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>16</td>
</tr>
</tbody>
</table>

**Junior**

<table>
<thead>
<tr>
<th>First semester</th>
<th>Hrs.</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHEM 514 Inorganic Chemistry</td>
<td>3</td>
</tr>
<tr>
<td>CHEM 523 Analytical Chemistry</td>
<td>4</td>
</tr>
<tr>
<td>BIOL 210 General Biology I</td>
<td>4</td>
</tr>
<tr>
<td>A general education introductory course in fine arts</td>
<td>3</td>
</tr>
<tr>
<td>A general education introductory course in a second social sciences dept.</td>
<td>3</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>17</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Second semester</th>
<th>Hrs.</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHEM 524 Instrumental Methods of Chemical Analysis</td>
<td>4</td>
</tr>
<tr>
<td>CHEM 661 Introductory Biochemistry</td>
<td>3</td>
</tr>
<tr>
<td>Professional electives</td>
<td>2</td>
</tr>
<tr>
<td>PHYS 316 Physics for Scientists Lab II</td>
<td>1</td>
</tr>
<tr>
<td>A general education further study or issues and perspectives course in history, English, or fine arts</td>
<td>3</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>13</td>
</tr>
</tbody>
</table>

**Senior**

<table>
<thead>
<tr>
<th>First semester</th>
<th>Hrs.</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHEM 546 Physical Chemistry I</td>
<td>3</td>
</tr>
<tr>
<td>CHEM 547 Physical Chemistry Laboratory</td>
<td>2</td>
</tr>
<tr>
<td>CHEM 690 Independent Study &amp; Research</td>
<td>2</td>
</tr>
<tr>
<td>A general education further study or issues and perspectives course in social sciences</td>
<td>3</td>
</tr>
<tr>
<td>Electives</td>
<td>3</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>15</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Second semester</th>
<th>Hrs.</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHEM 548 Physical Chemistry II</td>
<td>3</td>
</tr>
<tr>
<td>CHEM 615 Advanced Inorganic Chemistry</td>
<td>3</td>
</tr>
<tr>
<td>CHEM 616 Inorganic Chemistry Laboratory</td>
<td>2</td>
</tr>
<tr>
<td>Electives</td>
<td>6</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>14</td>
</tr>
</tbody>
</table>

**Bachelor of Science in Chemistry—Premedicine**

<table>
<thead>
<tr>
<th>Course</th>
<th>Hrs.</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHEM 211, 212</td>
<td>10</td>
</tr>
<tr>
<td>CHEM 523</td>
<td>4</td>
</tr>
<tr>
<td>CHEM 531, 532</td>
<td>10</td>
</tr>
<tr>
<td>CHEM 562, 563*</td>
<td>12</td>
</tr>
<tr>
<td>CHEM 564</td>
<td>3</td>
</tr>
<tr>
<td>CHEM 567*</td>
<td>2</td>
</tr>
<tr>
<td>PHYS 315, 314, 315, 316</td>
<td>10</td>
</tr>
<tr>
<td>MATH 112, 242, 243, 344</td>
<td>18</td>
</tr>
</tbody>
</table>

**Combination of CHEM 514, 547, and 548 (see description)**

**Biochemistry Field Major**

<table>
<thead>
<tr>
<th>Course</th>
<th>Hrs.</th>
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<td>CHEM 211, 212</td>
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<td>CHEM 523</td>
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<td>CHEM 531, 532</td>
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<td>CHEM 662, 663</td>
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<td>CHEM 664</td>
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<td>CHEM (BIOL) 666</td>
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<td>CHEM (BIOL) 669</td>
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<td>BIOL 210, 211</td>
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<td>BIOL 419</td>
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<td>BIOL 420</td>
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<td>MATH 112 or (111 and 123)</td>
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<tr>
<td>PHYS 213, 214</td>
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<tr>
<td>Biochemistry electives</td>
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**Chemistry/Business Field Major**

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<th>Course</th>
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<td>CHEM 211, 212</td>
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<td>CHEM 523</td>
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<tr>
<td>CHEM 514 or 524</td>
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<td>CHEM 531, 532</td>
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<td>CHEM 661 (or both 662 and 663)</td>
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<td>MATH 144 or 242</td>
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<td>ACCT 210, 220</td>
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<td>ECON 201, 202</td>
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<td>BLAW 431*</td>
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<td>FIN 340*</td>
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<td>MGMT 360*</td>
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<td>MKT 300, 405*, 608*</td>
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*Denotes an upper-division course requiring permission from the Barton School of Business prior to enrollment.

All programs require additional courses to satisfy general education curriculum requirements and the graduation requirements in Fairmount 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 atomic and molecular theory, energy, structures, and theories regarding why reactions occur.

> CHEM 103. Introductory Chemistry (5). 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 211–212 sequence. Credit is not granted for both CHEM 103 and 211. 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 211. Prerequisites: one year of high school algebra or MATH 011.

> CHEM 211. General Chemistry I (5). 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 211–212 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 211, 103, or 110. Prerequisites: a college-level chemistry course such as CHEM 110, 101, or 103, or high school chemistry or physics. Corequisite: MATH 111 or two units of high school algebra or MATH 011.

> CHEM 212. General Chemistry II (5). 3R; 4L. Lab fee. General education further study course. Continuation of CHEM 211. Includes thermodynamics, gaseous and ionic equilibria, kinetics, nuclear chemistry, electrochemistry, qualitative analysis, and an introduction to theories of bonding. Prerequisite: CHEM 211 with a grade of C or better.

Upper-Division Courses

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 211.

CHEM 481. Cooperative Education in Chemistry (1–4). Permits chemistry students to participate in the cooperative education program. Offered Cr/NCr 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, systems of the chemistry of the elements, acid-base chemistry and non-aqueous solvents, classical coordination chemistry, and introductory bioinorganic chemistry. Prerequisite: CHEM 212 with a C or better. CHEM 531 strongly suggested but not required.

> CHEM 523. Analytical Chemistry (4). 2R; 6L. Lab fee. General education further study course. Evaluation of data, theory and application of gravimetric analysis and precipitation, neutralization, and oxidation-reduction volumetric analysis. Prerequisite: CHEM 212 with a C or better.

> CHEM 524. Instrumental Methods of Chemical Analysis (4). 2R; 6L. Lab fee. Introduction to spectroscopic techniques (UV-Visible atomic absorption, molecular absorption, infrared, mass spectrometry and NMR), electrochemical techniques (potentiometry, voltammetry and coulometry) and separation techniques (gas chromatography and HPLC). Applications of computer and automated methods of analysis also covered. Prerequisite: CHEM 523 and 531 with a C or better. CHEM 532 strongly recommended but not required.

> CHEM 531. Organic Chemistry I (5). 3R; 6L. Lab fee. General education further study course. Introduction to the study of carbon compounds emphasizing reaction mechanisms, stereochemistry, and spectrographic analysis. Prerequisite: CHEM 212 with a C or better.

CHEM 532. Organic Chemistry II (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 with a grade of C or better.

> CHEM 546. Physical Chemistry I (3). General education further study course. Kinetic theory, kinetics, transport phenomena, quantum theory, spectroscopy, and statistical thermodynamics. Prerequisites: CHEM 212 with a grade of C or better, 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. Pre- or corequisite: CHEM 546.


CHEM 603. 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. Discussed cellulose (biomass)-based products such as gelling polysaccharides and natural fibers along with industrial adsorbents (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 correlations (how structure influences physical properties) plastics recycling, and methods of plastics and composites processing. Pre- or corequisite: CHEM 532.

CHEM 605. Medical Chemistry (3). For students interested in chemistry related to the design, development, and mode of action of drugs. Describes those organic substances used as medicinal agents 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, etc. and brings about a better 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 discussion of a select number of organic medicinal agents. Prerequisite: CHEM 532 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. Pre- or corequisite: CHEM 615.

> CHEM 661. Introductory Biochemistry (3). General education 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—premedicine 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 I (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 and 532 or equivalents.

CHEM 663. Biochemistry II (3). Study of metabolism and control of carbohydrates, lipids,
phosphoglycerides, sphingolipids, sterols, amino acids and proteins; synthesis of purines, amides and polyamines; synthesis and metabolism of pyrimidines, pyridines, and nucleotides; synthesis and structure of DNAs, RNAs and proteins; 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 generalized tissues. A fundamental background of biology or microbiology is recommended but not essential. Prerequisite: CHEM 662.

CHEM 664. Biochemistry Laboratory (3). IR; 6L. Lab fee. Practical training in biochemical procedures and literature searching; experiments include isolation, characterization and assay of biomolecules and use of centrifugation, chromatography, electrophoresis, spectrophotometry, enzyme kinetics, and radioactive labeling techniques. Prerequisite: CHEM 532 or equivalent. Corequisite: CHEM 662 or CHEM 663.

CHEM 666. 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 669. Research in Biochemistry (2). Cross-listed as BIOL 669. Students in the biochemistry field major 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. S/U grade only. Prerequisites: BIOL 420 and CHEM 662 or 663, and CHEM 664 and instructor’s consent.

CHEM 690. Independent Study and Research (2–3). Studies performed must be directed by a faculty member in the department of chemistry. Repeatable for credit. A maximum of 3 credit hours may be counted toward graduation. Prerequisite: departmental consent.

CHEM 700. Chemistry Seminar (1). Students give seminars on either papers recently published in the literature or on their own research. Repeatable for credit. S/U grade only.

CHEM 701. Chemistry Colloquium (1). Speakers for the colloquium consist of outstanding chemists from other institutions and faculty. Repeatable for credit. S/U grade only.

CHEM 704. Environmental Science Colloquium (1). Cross-listed as 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 706. Environmental Science Internship (3–6). Cross-listed as GEOL 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: CHEM 702 and 703.

CHEM 709. 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 715. Advanced Spectroscopy I (3). An introduction to 1H and 13C NMR spectroscopy including basic concepts such as integration, chemical shifts, diamagnetic shielding, magnetic anisotropy, spin-spin coupling (first and second-order), coupling constants, proton decoupled 13C NMR interpretation of 1H and 13C NMR spectra. More advanced topics include NOE and protein structural programming, and multidimensional techniques such as COSY, DEPT, INEPT, molecular motion by NMR, coupling to 1D metal centers, including those with less than 100 percent natural abundance, virtual coupling in metal complexes, NMR of paramagnetic systems and use of paramagnetic shift reagents. An introduction to mass spectroscopy including instrumentation—magnetic sector, quadrupole, ion trap, MS-MS; sample preparation and interfaces—GC-MS, LC-MS, electrospray, MALDI; methods of ionization—electron impact, chemical ionization, electrospray, interpretation of mass spectra—basic concepts, fragmentation patterns. An introduction to the interpretation of infrared, mass spectroscopy of complex molecules and ionic compounds followed by the synthesis of results from NMR, MS and mid IR spectra to determine structure. Emphasis on interpretation of results for understanding electronic and molecular properties of chemical compounds related to their symmetry.

CHEM 717. Advanced Spectroscopy II (3). An introduction to electronic and vibrational spectroscopy, EPR and magnetic properties of compounds. A study of the electric field interaction of radiation, electronic and vibrational spectroscopy, and the magnetic field interaction of radiation, EPR and magnetism, with molecular systems examining the different changes in state that molecules can undergo. Emphasis on interpretation of results for understanding electronic and molecular properties of chemical compounds related to their symmetry and structure.

CHEM 719. Modern Synthetic Methods (3). An introduction to modern synthetic methods in chemistry. A detailed investigation of the synthetic chemistry of anions is followed by a detailed survey of functional group interconversions, then oxidation and reduction reactions. The topic of retrosynthetic analysis is introduced. Topics in inorganic synthesis include organometallic bond forming and breaking reactions, ligand synthesis and replacement, solid state synthesis, and topics in bioinorganic synthesis.

CHEM 721. Advanced Biochemistry (3). An introduction to advanced biochemical concepts, processes, and techniques. A comprehensive survey of structure functions of biomolecules including proteins, nucleic acids, lipids and carbohydrates is carried out. Protein synthesis, DNA replication and translation, biological membrane and membrane transport are covered. Enzyme mechanisms and kinetics and protein structure/function are discussed in detail. Biochemical, molecular biological, bio-physical, and chemical techniques that are commonly used in the study of biochemical processes are introduced and discussed.

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 734. Instrumental Methods for Research (3). Designed to prepare graduate students or other researchers to perform spectroscopy experiments relevant to their research. The identification of organic compounds can be determined by the information provided by several types of spectra: mass, infrared, nuclear magnetic resonance, fluorescence, and ultraviolet. Students learn to operate such instruments as the Varian 2200 GC/MS mass spectrometer, the Thermo Nicolet Avatar FTIR spectrophotometer, the Varian Mercury 300 and Inova 400 NMR spectrometers, the Fluorolog fluorescence spectrophotometer and the Hitachi U-2010 and Varian Cary 100 UV-Vis spectrophotometers in the department's NMR and analytical facilities. The focus of this class is technique and not the interpretation of spectra. On successful completion of this course, students are authorized to use departmental instruments. Prerequisite: departmental consent.

CHEM 738. Structure Determination and Spectral Analysis of Organic Compounds (3). Discusses chiroptical techniques, infrared, ultraviolet, nuclear magnetic and electron spin resonance and mass spectroscopy, and their practical use in structure determination. Prerequisite: CHEM 532.

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, organic, and biochemicals. 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
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.

1. Broadcast Journalism: COMM 401, 422, 622, one course from 304, 502, 522, 604, and 609; and 6 hours of upper-division communication elective credit.
2. Electronic Media: COMM 303, 304, 422, 604, 609, and 3 hours of upper-division communication elective credit.
3. 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.
4. Print Journalism: COMM 310, 401, 500, 510, one course from 340, 550, 571, 660; and 3 hours of upper-division communication elective credit.
5. Strategic Communication: One course from 311, 328, or 511, (foundation cluster); one course from 290, 302, and 312 (interpersonal communication cluster); one course from 640 and 650 (organizational communication cluster); one course from 313, 502, and 632 (public affairs cluster); one course from the following or two courses that combine for three credits from 398, 402, 481, 581, 622, and 690 (practicum); one additional course selected in consultation with an adviser (elective).
6. 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 background and experience. These proposals must be developed by students in consultation with a faculty adviser, be substantially different from the structured emphases available, and be coherent and justifiable to a faculty 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 senior 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 adviser (6 of the 12 hours must be at the 300-level or above).

A minor in graphic design communication is available to any student working toward a bachelor of fine arts graphic design degree. This minor consists of 15 credit hours made up of the following 3-hour courses: COMM 301, 324, 510, 525, and 626. An additional 1-hour course, COMM 472, is strongly recommended to students who pursue this minor.

A minor in graphic design (18 hours) is also available to communication students through the graphic design department in fine arts. Courses required for the minor are Design I, ARTG 136; Introduction to Computer Graphics, ARTG 200; Typography I, ARTG 216; Graphic Design Studio, ARTG 235; or Graphic Design Studio III ARTG 334; and two elective courses in graphic design.

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...
Advising Requirements

The undergraduate coordinator will advise all premajors 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 adviser, 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 advisers 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., finishing 90 hours of coursework) and after completing at least 18 hours of communication coursework.

Departmental Honors in Communication

Students must have a 3.250 GPA overall and must maintain at least a 3.500 GPA in communication as well as in departmental honors courses in communication to earn departmental honors. Students must apply for and be admitted to departmental honors in communication before their senior year. The departmental honors track in communication requires COMM 535 and two of the following three courses: COMM 430, 630, 631; and 633 (to be taken only after completing two of the other courses in the departmental honors track).

Communication Core Courses

COMM 100. 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. Prerequisites: grade of C or better in ENGL 101, ENGL 102, and COMM 130; and pass the department's Grammar, Spelling, and Punctuation (GSP) exam.

COMM 302. Speaking for All Audiences (3). A seminar on the art of organizing and delivering a speech or presentation. Emphasizes preparation, delivery, and audience awareness in all types of communication. Students will assist in the planning and development of community events. Prerequisite: COMM 111 or instructor's consent.

COMM 303. Principles of Media Research (3). Investigates the impact of mass media on the development of social, cultural, economic, and political values. Emphasizes the role of the mass media in forming public opinion and social change. Prerequisite: COMM 111 or instructor's consent.

COMM 304. Media Organization and Operation (3). Introduces the methods used for the analysis and critique of various media forms. Explores the methods and principles of effective media use in practical settings. Prerequisite: COMM 111 or instructor's consent.

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 communication. Prerequisite: COMM 111 with a grade of C or better.

COMM 430. 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. Prerequisites: junior standing and COMM 130 or instructor's consent.

COMM 472. Senior Portfolio Seminar (1). Students prepare a resume and portfolio of their best work to be evaluated by faculty members and communication professionals in their areas of emphasis. Ideally completed in a student’s final semester before graduation. Graded Cr/Nr. 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 discerning consumers of the various forms of public and mass-mediated messages. Analysis includes print advertisements, radio and television messages, newspaper features, and public speeches. Prerequisites: junior standing and COMM 301 with a C or better or instructor's consent.

COMM 630. 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 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. Prerequisites: junior standing and COMM 130 or instructor's consent.

Lower-Division Courses

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 requirement 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 (4). 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 190. 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. Uses 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 credit hours. 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). 2R; 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 Photjournalism (3). 2R; 3L. Lab fee. Basic photographic theory and techniques 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. A study of theory and research in nonverbal communication. Students explore different aspects of nonverbal communication and engage in original research and study in the field of nonverbal communication. Emphasizes the application of nonverbal communication to the total human communication process. Prerequisite: COMM 111.

COMM 313. Argumentation and Advocacy (3). General education further study course. Studies the principles of effective rational discourse, oral and written, dealing with controversial issues in public deliberative, forensic, and educational areas. Includes valid and fallacious reasoning as well as tests of evidence.

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 335. International and Intercultural Communication (3). General education further study course. Introduces basic concepts and principles regarding communication between people from different racial, ethnic, and cultural backgrounds. Also includes the influence of the media in intercultural communication.

COMM 340. Applied Photjournalism (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 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. Repeatable 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 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/NCR. Prerequisite: departmental consent.

Courses for Graduate/Undergraduate Credit

COMM 500. Advanced Reporting (3). 1R; 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: organizational, interpersonal, small group, and public; and contemporary topics and issues. Prerequisite: COMM 150 or instructor's consent.
COMM 525. Advertising Copywriting (3). Detailed practice at writing various kinds of advertising copy, including print and broadcast forms. Emphasizes serious, precise writing that evokes response sought by 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 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 writing print, broadcast, and electronic opinion pieces, and examining traditional and new technology research materials available to opinion writers. Prerequisites: COMM 301 with a C or better and junior standing.

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. Scholastic Journalism Instructional Strategies (3). Assists those who are preparing to advise and 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 adviser’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 plans book, as well as produce advertising and public relations campaign materials. Prerequisites: COMM 324 and 525 or instructor’s consent.

COMM 633. Senior Honors Project (3). For undergraduates seeking departmental honors in communication. An individual written and oral project, including a review of literature, methodology, and critical analysis on a communication topic approved by the instructor. Prerequisites: senior standing; minimum GPA of 3.500; COMM 430, 535, 630, 631; and departmental consent.

COMM 635. Leadership Techniques for Women (3). Cross-listed as WOMS 635. Provides the female student experience in decision making and improves skills in leadership through role playing and exercise in group dynamics.

COMM 636. Advanced Public Speaking (3). Skills development in a variety of advanced presentation methods, including speaking from a TelePrompter, using PowerPoint technology, spokesperson/press conference speaking, 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 forensic programs (debate and individual events). The future teacher is made aware of the literature and professional organizations in the field.

COMM 675. Directed Study (1–3). Cross-listed as THEA 675. Individual study or projects. Repeatable for credit with departmental consent. Prerequisite: departmental consent.

COMM 690. Communication Internship (1–2). Credit for professional experience that integrates theory with a planned and supervised professional experience designed to complement and enhance an 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/NCr. Prerequisite: departmental consent.

COMM 712. Advanced Interpersonal Communication (3). Advanced exploration of concepts and variables in interpersonal communication through the study of different theories as well as practical experiences in dyadic and small-group communication. Prerequisite: COMM 302 or instructor’s consent.

COMM 720. Dimensions of Mass Communication (3). A detailed study of mass media, their role as social institutions; their control, support, content, and audience; and their effects.

COMM 722. The Art of Conversation (3). Conversation is the form of communication people engage in most naturally and frequently, but about which they seldom think seriously. Helps participants enhance their understanding and appreciation of, as well as their skill in, the art of conversation. Includes the nature of conversation, principles of conversational communication, types of conversation, conversation in the media, and conversation analysis. Prerequisites: COMM 302 and junior standing or departmental consent.

COMM 750. Workshops in Communication (1–4). COMM 760. 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 770. The Audience (3). Application of research techniques to the measurement of audience behavior emphasizing mass media audiences. Includes focus group interviews, survey research, and radio and television ratings.

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

Communication Sciences and Disorders (CSD)
Students may use CSD as a primary area in the BGS degree, or in a field major. Refer to the sections concerning those degrees.

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 who will work in an ever-changing urban and global community. Additionally, the Midwest Criminal Justice Institute (MCJI), the Regional Community Policing Training Institute (RCPTI), 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 (BS) and Master of Arts (MA) in criminal justice degrees. These degree programs are designed to provide preservice 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). ENGL 210 and ETHS 360 are additional requirements. Students must also satisfy the Fairmount College of Liberal Arts and Sciences requirements (including the foreign language requirement) and the university requirements for the Bachelor of Science degree. Students must complete 21 hours of core courses: CJ 191, 391, 392, 394, 407, 593, and 598 and 15 hours of electives (there is a maximum of 6 hours total allowed in 481 and 483). Students may take 14 additional credit hours beyond the 36 hours required for the major (for a total of 50 hours).

Minor. The minor in criminal justice consists of at least 18 hours of criminal justice courses and must include CJ 191 and two of the following: CJ 391, 392, and 394, and 593.

CJ 191 is the prerequisite for all criminal justice courses. Courses numbered 600 and above require a minimum of 15 hours of criminal justice courses or junior, senior, or graduate standing.

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 exposure to and knowledge of forensics as a possible career choice.
- Individuals who want exposure to 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 & Legal Aspects of Death Investigation
- CJ 600 Forensic Anthropology
- CJ 641 Forensic Psychiatry
- CJ 643 Forensic Science

Certificate in Corrections
The certificate in corrections is designed to enhance the career needs of:
- Individuals who are employed as correctional practitioners; and
- 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; and
- 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 & Scientific Crime Detection
- 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
Unless otherwise noted, CJ 191 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, furloughs, study release, work release, and restitution. Discusses programs in terms of definition, history, purpose, administration/ process, 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 interrelationship between corporate and business crime (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). 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 elder 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. Pre- or corequisite: CJ 191.

CJ 393. Serial Killers (3). Examines the history, dynamics, causation, investigation, and control of the phenomenon of serial crimes, particularly homicide. Emphasizes investigative techniques including psychological and geographic profiling. Prerequisite: 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. Students play the role of the decision maker for the law enforcement, court, and correction agencies, resulting in an in-depth view 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 407. Introduction to Research Methods (3). Introduces research methods emphasizing the methods most commonly used. Includes library and reference materials, government documents, and legal materials. Prerequisite: CJ 191, ETHS 100, or GERO 100.

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, burdens 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. Repeatable for credit. No more than 6 hours may be counted toward the CJ major. Enrollment limited to a maximum of 4 hours in one semester. Offered CR/NC only. Prerequisites: 24 total hours and consent of the criminal justice agency.

CJ 482. Internship (1–3). Supervised field placement with a governmental or private law enforcement, court, correction, 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 96 hours for 3 credits; there is a maximum of 6 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 PADM 501. Exposes students to basic principles of personal and professional integrity and how those principles apply to their daily lives as a member of the community and as employees of a governmental or social service agency. Employing 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.

>CJ 513 Violent Crime (3). General education further studies course. Examines the extent, causes and policy implications of violent crime. Begins with a review of the rates of violent crime in various parts of the U.S. Provides students with some direct experience of violence such as an emergency room observation period or a panel of victims of violence. Course also covers the theoretical approaches of violent crime as well as factors related to violence among strangers vs. families. Critical reviews of various policy responses to violence, including their likelihood to prevent or reduce violent crime are required. Prerequisite: CJ 191.

CJ 515. Sex Crimes (3). Examines and defines what is classified as criminal forms of sexual behavior and the unique challenges they present to the criminal justice system. Examines the extent and nature of sex crimes, sexual predator laws, sexual harassment and the victims of such crimes. Discusses the theoretical developments in the field. Prerequisite: CJ 191.

CJ 516. Profiling (3). Familiarizes students with the methods used to profile violent crimes, including homicide, rape, arson and burglary. Includes scope of the problem in each of these crimes, typical investigation sequence and the role of profiling up to the trial preparation stage. Prerequisite: CJ 191.


>CJ 518. Criminal Justice & Crime in Film (3). General education further studies course. Presents films and associated popular cultural materials related to the criminal justice system and crime. The genre of the crime film has become an important component of contemporary culture. The course begins with basics of film criticism and provides students with instruction on elements of a film genre. American and European films are considered.

CJ 541. Medical and Legal Aspects of Death Investigation (3). Emphasizes the manner, cause, and mechanism of death; physiological effects of trauma; postmortem changes; identification techniques; investigation of child deaths; and the components of a complete death investigation. Considers and analyzes the history, function, and responsibilities of the coroner/medical examiner. Prerequisite: CJ 191.

CJ 551. Workshop (1–6). Specialized instruction using variable formats in relevant criminal justice subjects. Repeatable for credit up to 6 hours.

>CJ 593. Crime Causation and Criminal Justice Policy (3). General education further study course. Introduction to theoretical issues in criminal justice. Primary emphasis is the etiology of 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 598. Contemporary Issues in Criminal Justice (3). A capstone course for criminal justice majors nearing the completion of the baccalaureate degree. Explores current criminal justice issues and integrates material learned in the criminal justice curriculum. Covers theories of crime and delinquency; origins and development of criminal law and procedure; functions and operations of criminal justice agencies in America, including the response to juvenile offenders; prevention of crime and delinquency; privatization in corrections and policing; the nature, meaning, and purpose of criminal punishment; the nature and impact of criminal justice policy; and the relationship between criminal justice and human diversity. Prerequisites: CJ 191, 391, 392, 394, 407, 593, and senior standing. For undergraduate criminal justice majors only.
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: 15 hours of criminal justice courses including CJ 191 or junior, senior, or graduate standing.

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 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: 15 hours of criminal justice courses including CJ 191 or junior, senior, or graduate standing.

CJ 643. Forensic Science (3). An overview of the various sciences used in the forensic investigation of crime, including toxicology, drug identification, questionable documents, firearm and toolmark identification, trace evidence analysis, fingerprint identification, forensic pathology, forensic serology, forensic odontology, and forensic anthropology. Prerequisite: 15 hours of criminal justice courses including CJ 191 or junior, senior, or graduate standing.

CJ 651. Dispute Resolution (3). 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. Prerequisite: 15 hours of criminal justice courses including CJ 191 or junior, senior, or graduate standing.

CJ 782. Workshop in Criminal Justice (1–6). Prerequisite: CJ 191 and instructor's consent.

CJ 783. Advanced Special Topics in Criminal Justice (1–3). Detailed study of topics in criminal justice with particular emphasis established according to the expertise of the various instructors. Prerequisites: CJ 191 and junior, senior, or graduate standing.

CJ 796. Criminal Typologies (3). Introduces an area of criminology that categorizes large amounts of information into mutually exclusive categories. Analyzes the various categories of crimes, the situations under which they are committed, the offenders who commit them, and the victims of those offenses. Examines the offenses of homicide, rape/sexual assault, aggravated assault, robbery/armed robbery, burglary, auto theft/carjacking, prostitution, drugs, gambling, cybercrime, white collar crime/occupational crime, arson, and hate crimes.

CJ 797. Policy Analysis and Program Evaluation (3). An overview of approaches to public policy analysis and program evaluation. Examines the roles of participants in policy public development, implementation, and evaluation. Explores policy and program functions and their intended and unintended impacts. Examines methodologies for collection of data and their use in the assessment of programs and program impacts. Prerequisites: 15 hours of criminal justice courses including CJ 191 or junior, senior, or graduate standing.

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

Ethnic Studies (ETHS) Ethic studies is an interdisciplinary program whose primary focus is on developing knowledge, attitudes, and skills to communicate effectively across cultural 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 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 undergraduate degrees through the field major and the Bachelor of General Studies (BGS) options. A minor in ethnic studies is also offered at the undergraduate level. A field major requires 18 hours of coursework including ETHS 100, 210, 332, 360, and 370 and one of the following: 320, 330, 331, 334, 380, 381, or 400. A minor in ethnic studies consists of at least 18 hours. The courses are to be approved by the student's adviser in the program.

Lower-Division Courses

ETHS 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.

ETHS 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.

ETHS 240. Ethnic Women in America (3). Cross-listed as WOMS 240. An examination of the lives, talents, and contributions made by ethnic women to the American culture. Examines 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

ETHS 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.

ETHS 330. Ethnic America, 1500–1924 (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.

ETHS 331. 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: ETHS 100, 210, or instructor's consent.

ETHS 332. The Native American (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: ETHS 100, 210, or instructor's consent.

ETHS 333. Issues in the Chicano Community (3). General education further study course. Examines a variety of social, psychological, and political concerns affecting Mexican-Americans, especially the impact of immigration and the media's role in the portrayal of Chicanos. Prerequisites: ETHS 100, 210, or instructor’s consent.

ETHS 334. Ethnic America in the 20th Century (3). General education further study course. Cross-listed as HIST 333. An in-depth study of the ethnic experience in the 20th century. Major historical topics include identity formations; inter-generational
Examines the status of blacks in American society. Examines the status of blacks in the current and historical social, economic, and political framework of this country. Prerequisites: ETHS 100, 210, or instructor’s consent.

ETHS 370. The Black Experience in America (3). Examines the status of blacks in American society. Examines the status of blacks in the current and historical social, economic, and political reform. Delves into the social perceptions of prominent American ethnic people as portrayed in popular novels, biographies, autobiographies, and rhetoric. Prerequisite: ETHS 100.

ETHS 371. Issues in Minority Aging (3). General education further study course. Cross-listed as GERO 512. Addresses the needs of students interested in (1) providing services to; (2) exploring the “issues” of; (3) becoming familiar with the rights of; (4) learning the legal procedures for resolving specific problems of; and (5) offering practical solutions for the difficulties encountered by ethnic older persons. Prerequisites: ETHS 100, GERO 100, SOC 111, or instructor’s consent.

ETHS 491. Urban Seminar (3). Exposes 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 are required to devote 16 hours per month for three months with a neighborhood-based agency. Prerequisites: 2.000 GPA, ETHS 100 or 210 or instructor’s permission. Corequisite: must be currently enrolled in at least 3 hours in addition to ETHS 491.

Course for Graduate/Undergraduate Credit

ETHS 512. Issues in Minority Aging (3). General education further study course. Cross-listed as GERO 512. Addresses the needs of students interested in (1) providing services to; (2) exploring the “issues” of; (3) becoming familiar with the rights of; (4) learning the legal procedures for resolving specific problems of; and (5) offering practical solutions for the difficulties encountered by ethnic older persons. Prerequisites: ETHS 100, GERO 100, SOC 111, or instructor’s consent.


ETHS 545. Cross-Cultural Communication Theory (3). An examination of current cross-cultural communication theory and its impact on contemporary cross-cultural issues.

ETHS 580. Individual Projects (3). Students conduct 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.

ETHS 725. Concepts of Cross-Cultural Communication (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. Provides a conceptual understanding of special implications and necessary adaptations of communication to, between, and among diverse ethnic groups in our society.

Forensic Sciences (FS)
The forensic sciences program offers the Bachelor of Science (BS) in forensic sciences degree. This degree program is designed to prepare students for entry-level work in a forensic sciences laboratory that operates within the context of the criminal investigation and crime detection processes.

Program. The forensic sciences program consists of a minimum of 94 hours involving courses from chemistry, biological sciences, anthropology, psychology, criminal justice and forensic sciences. Some of these required courses may also satisfy the university’s general education requirements. Students must also satisfy the Fairmount College of Liberal Arts and Sciences and the university requirements for the Bachelor of Science degree.

Admission to the Forensic Sciences Program
Freshman and transfer students declaring the Bachelor of Science in forensic sciences will be assigned a premajor code upon admission to the university. Upon completion of the following admission criteria students may be admitted to the major.

1. Completion of the following basic skills courses:
ENGL 101 College English I
ENGL 102 College English II
COMM 111 Public Speaking
MATH 111 College Algebra

2. Completion of the following premajor courses:
BIOL 210 General Biology I
BIOL 211 General Biology II
CHEM 211 General Chemistry I
CHEM 212 General Chemistry II

3. Completion of a short personal narrative

4. Completion of the criminal history disclaimer form

Students may be admitted at any time but are encouraged to submit their application materials on or before October 1st during the fall semester and March 1st during the spring semester. The admission decision is made by a faculty committee representing the chemistry, biological sciences, psychology, anthropology, criminal justice and forensic sciences departments. Applications may be sent to Wichita State University, Forensic Sciences Program Director, Campus Box 135, Wichita, Kansas 67260-0135.

Bachelor of Science in Forensic Sciences
In addition to the basic skills courses and the premajor courses, the following courses are required for the completion of the degree:

1. Twelve hours of humanities courses which must include an English literature course, HIST 131 or 132, a fine arts course, and a further studies course. (See sample course sequence)
2. Seven hours of general electives
3. Seventy-six hours of coursework for the major including: CHEM 523, 524, 531, 532, 661; BIOL 223, 330, 419, 420; ANTH 101/106, 557, 600; PSY 111, 301, 544; CJ 315, 420; FS 450, 451, 452, 453, 454, 455, 498 & 499.

Minimum Requirements
CHEM 211 General Chemistry I . . . . . . . . . .5
CHEM 212 General Chemistry II . . . . . . . . . .5
CHEM 531 Organic Chemistry I . . . . . . . . . .5
CHEM 532 Organic Chemistry II . . . . . . . . . .5
FS 452 Forensic Toxicology of Alcohol (1). Provides a didactic background for understanding the pharmacological/toxicological effects of alcohol. Students gain an understanding of the testing of biological fluids for alcohol, the interpretation of the results, including various pharmacokinetic calculations used in forensic settings and the application of alcohol results in a judicial arena. Prerequisites: BIOL 210, 211, CHEM 211, 212.

FS 455 Forensic Arson Analysis (1). Provides instruction in the forensic analytical techniques used for the identification of various flammable chemicals used in arson fires. Students gain exposure to the analytical techniques used in the laboratory investigation of suspicious fires. Prerequisites: BIOL 210, 211, CHEM 211, 212.

FS 455 Forensic Arson Analysis (1). Provides instruction in the forensic analytical techniques used for the identification of various flammable chemicals used in arson fires. Students gain exposure to the analytical techniques used in the laboratory investigation of suspicious fires. Prerequisites: BIOL 210, 211, CHEM 211, 212.

FS 450 Forensic Identification of Narcotics and Other Illicit Substances (1). Provides a background in selected analytical chemistry procedures used in the forensic lab to ensure a specific qualitative identification of various licit and illicit controlled substances. Students gain experience in the theory and application of various chromatographic and spectrophotometric techniques used in the modern forensic lab. Prerequisites: BIOL 210, 211, CHEM 211, 212.

FS 451 Forensic Identification of Narcotics and Other Illicit Substances (1). Provides a background in selected analytical chemistry procedures used in the forensic lab to ensure a specific qualitative identification of various licit and illicit controlled substances. Students gain experience in the theory and application of various chromatographic and spectrophotometric techniques used in the modern forensic lab. Prerequisites: BIOL 210, 211, CHEM 211, 212.

FS 452 Forensic Toxicology of Alcohol (1). Provides a didactic background for understanding the pharmacological/toxicological effects of alcohol. Students gain an understanding of the testing of biological fluids for alcohol, the interpretation of the results, including various pharmacokinetic calculations used in forensic settings and the application of alcohol results in a judicial arena. Prerequisites: BIOL 210, 211, CHEM 211, 212.

FS 453 Forensic Serology (1). Provides a background in the detection, characterization and identification of biological fluids. Students gain a fundamental background in the characteristics of blood, saliva and semen and practical hands-on experience in the forensic analytical techniques used in their detection and identification. Prerequisites: BIOL 210, 211, CHEM 211, 212.

FS 454 FingerPrint Development and Analysis (1). Provides an understanding of the development of the HENRY classification system, and the detection, collection and preservation of latent fingerprints. Prerequisites: BIOL 210, 211, CHEM 211, 212.

FS 455 Forensic Arson Analysis (1). Provides instruction in the forensic analytical techniques used for the identification of various flammable chemicals used in arson fires. Students gain exposure to the analytical techniques used in the laboratory investigation of suspicious fires. Prerequisites: BIOL 210, 211, CHEM 211, 212.

FS 498. Seminar in Forensic Sciences Techniques I (1). Provides instruction in the forensic analytical techniques used for the identification of various flammable chemicals used in arson fires. Students gain exposure to the analytical techniques used in the laboratory investigation of suspicious fires. Prerequisites: BIOL 210, 211, CHEM 211, 212.

FS 499. Seminar in Forensic Sciences Techniques II (1). Provides instruction in the forensic analytical techniques used for the identification of various flammable chemicals used in arson fires. Students gain exposure to the analytical techniques used in the laboratory investigation of suspicious fires. Prerequisites: BIOL 210, 211, CHEM 211, 212.

FS 540 Forensic Identification of Marijuana (1). Focuses on the botanical and chemical background necessary for the identification of marijuana. Students gain practical experience in the microscopic and chemical analysis of the marijuana plant. Prerequisites: BIOL 210, 211, CHEM 211, 212.

FS 541 Forensic Identification of Narcotics and Other Illicit Substances (1). Provides a background in selected analytical chemistry procedures used in the forensic lab to ensure a specific qualitative identification of various licit and illicit controlled substances. Students gain experience in the theory and application of various chromatographic and spectrophotometric techniques used in the modern forensic lab. Prerequisites: BIOL 210, 211, CHEM 211, 212.

FS 542 Forensic Toxicology of Alcohol (1). Provides a didactic background for understanding the pharmacological/toxicological effects of alcohol. Students gain an understanding of the testing of biological fluids for alcohol, the interpretation of the results, including various pharmacokinetic calculations used in forensic settings and the application of alcohol results in a judicial arena. Prerequisites: BIOL 210, 211, CHEM 211, 212.

FS 543 Forensic Serology (1). Provides a background in the detection, characterization and identification of biological fluids. Students gain a fundamental background in the characteristics of blood, saliva and semen and practical hands-on experience in the forensic analytical techniques used in their detection and identification. Prerequisites: BIOL 210, 211, CHEM 211, 212.

FS 544 FingerPrint Development and Analysis (1). Provides an understanding of the development of the HENRY classification system, and the detection, collection and preservation of latent fingerprints. Prerequisites: BIOL 210, 211, CHEM 211, 212.
GERO 150. Workshop in Gerontology (1–3). Provides specialized instruction, using a variable format in a gerontologically relevant subject. Repeatable for credit.

Upper-Division Courses


GERO 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 Cr/NCr only. Prerequisites: GERO 100 and instructor's consent.

Courses for Graduate/Undergraduate Credit

GERO 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. Prerequisites: 12 hours of gerontology credit and instructor's consent.

>GERO 512. Issues in Minority Aging (3). General education further study course. Cross-listed as ETHS 512. Addresses the needs of students interested in (1) providing services to; (2) exploring the “issues” of; (3) becoming familiar with the rights of; (4) learning the legal procedures for resolving specific problems of; and (5) offering practical solutions for the difficulties encountered by ethnic older persons. Prerequisites: ETHS 100, GERO 100, SOC 111 or instructor's consent.

GERO 513. Sociology of Aging (3). Cross-listed as SOC 513. Analysis of the social dimensions of old age, including changing demographic structure and role changes and their impact on society. Prerequisite: SOC 111.

GERO 515. Women and Aging (3). Introduces students to issues in aging that are unique to women, to women's diverse developmental patterns, and to research methods appropriate for studying aging women and their life experiences. Topics include physical change, role transitions, and adaptation from a lifespan perspective.

GERO 518. Biology of Aging (3). Cross-listed as BIOL 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 biology that satisfies the general education requirements.

GERO 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, widowhood, caregiving, and intergenerational relationships as these relate to the family life of older people. Prerequisites: GERO 100, SOC 111, or junior standing.

GERO 543. Aging and Public Policy (3). Cross-listed as SOC 543. Seminar-style course explores the impact of an aging population on social institutions, covers the history of American aging policies, the organization and financing of health care for the elderly, and discusses policy analysis as an evaluation tool for comparing public approaches to responding to the needs of an increasingly diverse aging population. Considers the process of policy formation, identifies key players and interest groups and contrasts political ideologies regarding federal, state and private responsibilities for older people. Emphasizes Social Security, the Older Americans Act, Medicare, and Medicaid as policy examples. Also looks at the potential contributions of the older population to society (volunteer services, provision of family care, etc.) as affecting and affected by policy. Prerequisite: SOC 111 or GERO 100 or junior standing.

GERO 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.

GERO 551. Workshop (3). Specialized instruction using a variable format in relevant gerontology subjects. Repeatable for credit up to 6 hours.

GERO 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.

GERO 663. Economic Insecurity (3). Cross-listed as ECON 663. 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. Prerequisites: ECON 202 or instructor's consent, and junior standing.

GERO 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.

GERO 702. Research Methods (3). Cross-listed as PADM 702. Acquaints students with applied public policy research methods. Emphasizes locating, collecting, appraising, and using both primary and secondary sources of data of the type used in policy planning, and administrative research. Students must complete several short research projects.

GERO 715. Adult Development and Aging (3). Explores theory and research related to the development of adults and to the aging process. Using an interactive, interdisciplinary perspective, the course examines the process of change, transition, growth, and development across the adult life span. Prerequisite: GERO 798 or 6 hours of gerontology.

GERO 720. Independent Readings in Gerontology (1–3). Directed study in a specialized topic in gerontology. Repeatable up to 6 hours. Prerequisites: 12 hours of gerontology credit and departmental consent.

GERO 750. Workshop in Gerontology (1–3). Provides specialized instruction, using a variable format in a gerontologically relevant subject. Repeatable for credit.

GERO 781. Cooperative Education (3–6). 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. These 3 to 6 hours may meet degree requirements (if approved by the academic adviser) in place of GERO 810. GERO 781 is graded Cr/NCr, while GERO 810 is letter graded. Prerequisites: 12 hours of gerontology and instructor’s consent.

GERO 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.

Criminal Justice

See Community Affairs, School of.

Earth, Environment and Physical Sciences (EEPS)

The earth, environment, and physical sciences (EEPS) program, co-administered by the departments of geology and physics, combines the disciplines of geology, physics, and environmental science, and supporting fields such as biology and chemistry. It is designed to train a new generation of scientists, professionals, and educators who will be well equipped with general knowledge and skills in methodology, critical and creative thinking in scientific research, and advanced knowledge and skills in geology, environmental science, or physics.

Although there is no undergraduate degree in earth, environment, and physical sciences (EEPS), the following EEPS courses may be used toward an undergraduate degree in physics or geology.

Courses for Undergraduate/Graduate Credit

EEPS 700. Technical Sessions (1). Through seminar presentations by students, faculty, and guest lectures, students critically analyze essential elements and skills of effective oral presentation of scientific research methodology, data, and results to audiences of diverse backgrounds; and learn techniques of effective use of visual display media, presentation styles, and speaker-audience interactions. Must be taken for two semesters for maximum of 2 credit
hours toward the degree. Prerequisite: graduate standing or instructor's consent.

EEPS 701. Computer Methods in Science (3) 1R; 2L. Survey of computer applications commonly used by scientists, emphasizing non-statistical applications. Includes computer-assisted instruction, data management, presentation packages, Internet resources, digital image analysis, graphics and spreadsheets, reference acquisition and management, desktop publishing, and specialized applications for modeling, simulations, mapping, and time-series analysis. Lectures and demonstrations involve individual hands-on activities and student projects. Prerequisite: graduate standing or instructor's consent.

EEPS 702. Research Methods (1). Essential elements and principles in scientific research, such as project design, funding application, literature research, implementation, collaboration, ethics, and publication. Includes guest resource persons from the library and research offices. Prerequisite: graduate standing or instructor's consent.

EEPS 710. Great Discoveries and Controversies in Science (3). Foundation, history, and insights that led to great discoveries in various scientific fields, and which caused great and continuing controversies in scientific theory, the advancement of science, and lessons and perspectives to be learned for future scientific research. Course involves lectures, seminars, literature research, essay writing, and presentation by students. Prerequisite: graduate standing or instructor's consent.

EEPS 720. Scientific Writing (1). Procedure, organization, format, and style of a variety of technical and scientific publication vehicles, such as abstracts, professional journal articles, government and industrial reports, and paper and book reviews. Essential elements and skills of effective scientific written communication. Must be taken in conjunction with any course (except EEPS 889 and 890) that requires extensive writing. May be repeated two times for different courses for a maximum of 2 credits toward the degree. Prerequisite: EEPS 700.

EEPS 721. Current Issues in Global Environmental Science (3). Introduces and uses basic concepts relating to ecosystems, habitats, environments, and resources as a basis for understanding environmental problems at different spatial and temporal scales. An interdisciplinary approach frames these problems to facilitate understanding of inter-relationships required for environmental analysis, remediation, and management. Prerequisite: EEPS 710 or instructor's consent.

EEPS 760. Whole Earth Geophysics (3). Examines the principles of physics as applied to both surface features and the interior configuration of the earth. Studies include an understanding and measurement of the physical properties of magnetism, heat flow, seismicity, and gravity. These physical parameters are used to determine the internal structure and to explain the active processes of the earth. Prerequisites: GEOL 111, MATH 243, and PHYS 214 or equivalent, or instructor's consent.

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

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 skill in critical thinking and their ability 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 adviser in the department of economics in Clinton Hall. Enrollment in all upper-division economics classes requires junior standing and completion of all course prerequisites. Students in this major or minor must achieve a minimum 2.250 GPA. The following courses are required:

Course .......................... Hrs
MATH 144 .......................... 3
MATH 242 Calculus I ............. 3
ECON 201 & 202 Principles of Economics I & II 6
ECON 240 or MATH 205 .......... 3
ECON 231 Introductory Business Statistics 3
ECON 232 Stat Software App. for Bus.* .... 1
ECON 301 Intermediate Macroeconomics 3
ECON 302 Intermediate Microeconomics 3
ECON 340 Money and Banking ........ 3
Upper-division electives .......... 15

Note: ECON 201 and 202 may be taken as part of the Fairmont College general education requirements.
ECON 481 may not be used in the economics major.

Minor. A minor in economics is available for any student whose major field or area of emphasis is outside of economics. A minor consists of ECON 201 and 202 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. ECON 481 may not be used in the economics minor.

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 322 or 323
ENGL 360
ENGL 361
ENGL 362
ENGL 363
ENGL 590

II. Electives (12 hours): 12 hours of work in other English courses, at least 6 of which must be taken at the 300–499 level.

Minor. A minor consists of 15 hours and requires ENGL 310, 320 or 330. Of the remaining 12 hours, at least 9 must be of upper-division work. ENGL 101, 102, 230, and 232 are not counted toward a minor.
II. Major Requirements (3 hours)
ENGL 285, (to be completed with a grade of B or better or receive departmental consent for further creative writing coursework)

III. Skill Requirements (at least 12 hours) from ENGL 301, 303, 305, 401, 403, 517, 518, 585, 586, (except for ENGL 301, 303 and 305; all of these courses may be repeated once for credit) or university honors English 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 adviser at the time they apply to the teacher education program. A 2.500 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 (3 hours)
ENGL 680
III. Literature (9 hours)
ENGL 322 or 323
ENGL 330
ENGL 346 or 365

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:
I. Language (6 hours)
ENGL 315 and 317
II. Composition (3 hours)
ENGL 680
III. Literature (24 hours)
ENGL 322 or 323
ENGL 310
ENGL 330
ENGL 340
ENGL 346 or 365
ENGL 360 or 361
ENGL 362
ENGL 363

Composition
Non-credit Courses
ENGL 011. Syntax, Logic and Organization (3). Reviews the basic elements of written English. Students write paragraphs and short essays. 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. Offered Cr/NcR only. Credit not applied for graduation.

ENGL 013. Basic Skills for ESL I (3). Teaches the fundamental elements of written and spoken English, emphasizing the acquisition of basic grammatical and syntactical structures and the writing of paragraphs and short essays. Offered Cr/NcR only. Credit not applied for graduation.

ENGL 015. Basic Skills for ESL II (3). Extends the skills developed in ENGL 013. Students continue to practice using basic grammatical and syntactical structures, work on reading comprehension skills, and continue to master essay structure. Offered Cr/NcR only. Prerequisite: ENGL 013 or satisfactory score on placement test. Credit not applied for graduation.

Lower-Division Courses
ENGL 100. English Composition (3). A required composition course for non-native-speaking students scoring below a certain level as determined by a departmental placement examination or ACT scores. Emphasizes 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. Prerequisites: Qualifying score on ACT or placement exam, or successful completion of ENGL 101. Substitutes for ENGL 101 for non-native speaking students.

>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 101. Substitutes for ENGL 101 for non-native speaking students.

>ENGL 102. College English II (3). General education basic skills course. Emphasizes critical reading, research, and argumentation. Emphasizes the development of research and writing skills appropriate to academic discourse. Integrates the writing process, rhetorical modes, and library skills into writing assignments related primarily to non-fiction readings. Prerequisite: ENGL 101. Substitutes for ENGL 101 for non-native speaking students.

ENGL 150. Workshop (1–4). Repeatable 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, memos, 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 or instructor's consent.

Upper-Division Courses
ENGL 380. Special Topics (1–3). Topic selected and announced by individual instructor. (Also listed under Literature.) Prerequisite: ENGL 102.

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 enrolls in the syllabus group appropriate to the composition course he or she teaches. 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 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 685. Advanced Composition (3). Explores the relationships among contemporary issues, problem solving, and communication. First objective: engage students in interdisciplinary inquiry into some aspect of social policy, inquiry which asks students to apply the analytical approaches of their major fields to current issues of broad, general interest. Second objective: develop students’ abilities to communicate their knowledge and assumptions about this issue to a variety of audiences and for a variety of purposes. Prerequisites: ENGL 101 and 102.

ENGL 780. Advanced Theory and Practice in Composition (3). For teaching assistants in English. Review 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 Courses

ENGL 285. Introduction to Creative Writing (3). An introductory course; the techniques and practice of imaginative writing in its varied forms, primarily literary poetry and fiction. Prerequisites: ENGL 101 and 102.

Upper-Division Courses

ENGL 301. Fiction Writing (3). Primary emphasis on student writing of literary fiction. 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 of literary poetry. 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 305. Creative Nonfiction Writing (3). Primary emphasis is on student writing of imaginative nonfiction. Students study form and technique by reading published classical and contemporary works and applying those studies to the essay, the travel essay, the essay of place, and nature writing. 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 are critiqued to develop skill in writing, rewriting, and polishing literary fiction. 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 literary poetry. Repeatable for credit. Prerequisite: ENGL 303.

Courses for Graduate/Undergraduate Credit

ENGL 517–518. Playwriting I and II (3; 3). Cross-listed as THEA 516 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 literary 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 literary 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.

Courses for Graduate/Undergraduate Credit

ENGL 667. English Syntax (3). Cross-listed as LING 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 study of language variety with special attention to regional and social dialect 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 design appropriate teaching units for class and language laboratory use.

Literature

Lower-Division Courses

>ENGL 230. Exploring Literature (3). General education introductory course. Instruction in the perceptive reading of literature in its major traditional periods or genres (especially drama, fiction, and poetry). May not be counted for credit in the English major or minor. Pre- or corequisite: ENGL 102.

>ENGL 232. Themes in American Literature (3). General education introductory course. Instruction in perceptive reading and writing about representative works of American fiction, poetry, drama, and the essay. Emphasizes understanding and appreciation of central themes and dominant ideas. May not be counted for credit in the English major or minor. Pre- or corequisite: ENGL 102.

ENGL 254. Modern British Literature (3). A survey of important works by major writers of the British Isles, including Ireland, in the 20th century. Prerequisite: ENGL 102.

Upper-Division Courses

ENGL 307. Narrative in Literature and Film (3). Explores the relationship between literature and film, addresses theoretical and practical issues involved in adaptation, and offers case studies of adaptations of novels, short stories, plays, and nonfiction works. Provides comprehensive analysis of the narrative, historical, and stylistic contexts in which the adaptation of texts to screen takes place. Prerequisites: ENGL 102 and one college-level literature or film course.

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. Prerequisite: ENGL 102.

>ENGL 320. The Nature of Drama (3). General education further study course. Acquaints the student with drama 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. Prerequisites: ENGL 102 and, for students seeking general education credit, 230 or 232.

>ENGL 322. Origins of Western Literature (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 selected books of the Bible. Prerequisites: ENGL 102 and, for students seeking general education credit, 230 or 232.

>ENGL 323. World Literature I (3). General education further study course. A survey of major works of European, African, Asian, and South American writers in the period 100–1650 C.E. The aim of the course is to deepen appreciation and understanding of individual works, to examine their relationship to other literature in their tradition, and to achieve a sense of each work as an expression of the culture that originated it. Prerequisite: ENGL 102 and, for students seeking general education credit, ENGL 230 or 232.

>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. Prerequisites: ENGL 102 and, for students seeking general education credit, 230 or 232.

ENGL 336. Women's Personal Narratives (3). Cross-listed as WOMS 330. 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. Prerequisites: ENGL 102 and, for students seeking general education credit, 230 or 232.
ENGL 342. American Folklore (3). 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: the unwritten materials that form the uniqueness of American culture. Prerequisite: ENGL 102.

ENGL 343. Great Plains Literature (3). General education issues and perspectives course. Covers literature written about the region from Kansas north into northern 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 102 and, for students seeking general education credit, ENGL 230 or 232.

ENGL 345. Studies in Comparative Literature (3). General education further study course. Studies representative works in the Western and ancient Near Eastern literary traditions emphasizing the contrasting relations 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. Prerequisites: ENGL 102 and, for students seeking general education credit, ENGL 230 or 232.

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. Prerequisites: ENGL 102 and, for students seeking general education credit, ENGL 230 or 232.

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. Prerequisites: ENGL 102 and, for students seeking general education credit, ENGL 230 or 232.

ENGL 362. Major American Writers I (3). General education further study course. Covers important works of American writers from the beginnings to the end of the 19th century. Prerequisites: ENGL 102 and, for students seeking general education credit, ENGL 230 or 232.

ENGL 363. Major American Writers II (3). General education further study course. Covers important works of American writers from the end of the 19th century to the present. Prerequisites: ENGL 102 and, for students seeking general education credit, ENGL 230 or 232.

ENGL 365. African-American Literature (3). General education further study course. A survey course; acquaints the student with the most significant African-American writers from the 1700s to the present. Covers early slave narratives 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 102 and, for students seeking general education credit, ENGL 230 or 232.

ENGL 375. Popular Literature (3). General education further study course. Studies various forms of popular literature (e.g., revolutionary literature, science fiction, Western fiction, detective novel) emphasizing both the literary merit of the works and the way they reflect popular tastes and values. Repeatable for credit with change of content. Prerequisites: ENGL 102 and, for students seeking general education credit, ENGL 230 or 232.

ENGL 380. Special Topics (1–3). Topic selected and announced by individual instructor. (Also listed under Creative Writing.) Prerequisite: ENGL 102.

ENGL 390. 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. Prerequisite: ENGL 102.

ENGL 398. Travel Seminar (3). A two-week travel course to 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 500. Independent Reading (1–3). For majors and non-majors who wish to pursue special reading or research projects in areas not normally covered in coursework. Repeatable once for credit. Prerequisites: ENGL 102 and departmental consent.

Courses for Graduate/Undergraduate Credit

ENGL 503. 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 transcontinental period, and the rise of Western and regional literature. Prerequisites: junior standing and one college literature course.

ENGL 504. American Literature II (3). Fiction, poetry, and drama from the late 18th century to after World War II. Readings also may include literary criticism and other types of nonfiction prose. Discussion covers themes, topics, and literary forms inspired by the social and cultural movements and events of the first half of the 20th century. Prerequisites: junior standing and one college literature course.

ENGL 505. American Literature III (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. Discussion covers themes, topics, and literary forms inspired by the social and cultural movements and events of the first half of the 20th century. Prerequisites: junior standing and one college literature course.

ENGL 508. Critical Studies in Film (3). Subjects announced each semester. Intensive analysis of a particular film genre, period, director, or theme, giving special attention to the historical, cultural, theoretical, and technical contexts in which the films were made. Repeatable once for credit with a change of content. Prerequisites: ENGL 102, and one college-level literature or film course.

ENGL 512. Studies in Fiction (3). Subjects announced each semester. Repeatable once for credit. Prerequisites: junior standing and one college literature course.

ENGL 513. Studies in Poetry (3). Subjects announced each semester. Repeatable once for credit. Prerequisites: junior standing and one college literature course.

ENGL 514. Studies in Drama (3). Subjects announced each semester. Repeatable once for credit. Prerequisites: junior standing and one college literature course.

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 516. Studies in a Major Author (3). Designed to allow in-depth study of the works of a major American or British author, emphasizing the development of that author's art and considering the work from a variety of critical perspectives.

ENGL 520. Epic and Romance (3). Readings in classic and early Western narratives, beginning with Homer's Bronze-Age epic and ending with late medieval romance. Examines the literary conventions and cultural assumptions that typify these works. Pays particular attention to the historical shift in interest from epic to romance as a reflection of broad changes, not only in literary form and content, but also in social customs and worldviews. Prerequisites: junior standing and one college literature course.

ENGL 521. Medieval Literature (3). Works by writers of the eighth to 15th centuries, often thematically or historically focused. Readings may include lyric poetry, epic, romance, saga, and drama. Prerequisites: junior standing and one college literature course, or instructor's consent.

ENGL 522. Renaissance Literature (3). Works by writers of the 16th through the mid-17th centuries, often thematically or historically focused. Readings may include poetry, drama, fiction, and nonfiction prose. Prerequisites: junior standing and one college literature course, or instructor's consent.

ENGL 524. Restoration and 18th Century Literature (3). Works by writers of the late 17th through the 18th centuries, often thematically or historically focused. Readings may include poetry, fiction, drama, and nonfiction prose. Prerequisites: junior standing and one college literature course, or instructor's consent.

ENGL 526. Romantic Literature (3). Works by writers of the late 18th and/or early 19th centuries, often thematically or historically focused. Readings may include fiction, poetry, drama, and/or literary criticism or other nonfiction prose. Prerequisites: junior standing and one college literature course, or instructor's consent.

ENGL 527. Victorian Literature (3). Works by writers of the mid to late 19th century, often thematically or historically focused. Readings may include...
fictio, poetry, drama, and/or literary criticism or other nonfiction prose. Prerequisites: junior standing and one college literature course, or instructor's consent.

**ENGL 532. Modern British Literature (3).** English and Irish literature of the 20th century. Subjects announced each semester. Repeatable once for credit with change of topic. Prerequisites: junior standing and one college literature course.

**ENGL 533. Contemporary Literature (3).** Modern literature, primarily British and American, since 1950. Subjects announced each semester. Repeatable once for credit. Prerequisites: junior standing and one college literature course.

**ENGL 535. Literary Images of Women: Diverse Voices (3).** Cross-listed as WOMS 535. Explores literature written in English by women of diverse ethnic, racial, class, and other backgrounds, as well as 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 WOMS 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 550. Independent Reading (1–3).** For majors and non-majors who wish to pursue special reading or research projects in areas not normally covered in coursework. Repeatable once for credit. Prerequisites: ENGL 102 and departmental consent.

**ENGL 580. Special Studies (1–3).** Topic selected and announced by the individual instructor. Repeatable once for credit. Prerequisites: departmental consent. Prerequisites: junior standing and one college literature course.

**ENGL 590. Senior Seminar (3).** In-depth study of a specialized literary topic. Emphasis is on focused readings, interactive debate, individual research and the presentation of research reports and essays. Topics vary according to the specialization of the instructor. This is a required capstone course for the English major, and should be taken during a student's final year of study. Prerequisite: completion of 18 hours toward the major. Not available for graduate credit.

**ENGL 700. Introduction to Graduate Study in English (3).** Prepares students to perform effectively in graduate classes in English. Covers: (1) basic bibliographical tools; (2) terminology both technical and historical; (3) various approaches to the study of literature, such as intrinsic analysis of a literary work, the relationships of biography to literary study, and the relevance of other disciplines, such as psychology, to literature; and (4) the writing of interpretative and research essays. Maintains a balance between criticism and research throughout the semester.

**ENGL 703. Seminar in American Literature I (3).** Advanced study of major issues and themes in fiction, poetry, and nonfiction prose from the early American period to the Civil War, with attention to the social and cultural contexts that shaped the literary history of the colonial period and the early nation. Repeatable once for credit with a change of content and departmental consent.

**ENGL 704. Seminar in American Literature II (3).** Advanced study of major issues and themes in fiction, poetry, and nonfiction prose from the postbellum period to 1920, with attention to the social and cultural contexts that shaped such trends as realism and modernism. Repeatable once for credit with a change of content and departmental consent.

**ENGL 705. Seminar in American Literature III (3).** From 1920 to 1970. Advanced study of major issues and themes in fiction, poetry, and nonfiction prose from 1920 to the contemporary period, with attention to the social and cultural contexts that shaped such trends as modernism and postmodernism. Repeatable once for credit with a change of content and departmental consent.

**ENGL 712. Graduate Studies in Fiction (3).** Selected topics in the development of the form and content of prose fiction.

**ENGL 713. Graduate Studies in Poetry (3).** Selected topics in forms, techniques, and history of poetry.

**ENGL 714. Graduate Studies in Drama (3).** Selected topics in the history and nature of dramatic literature.

**ENGL 715. Seminar in Chaucer (3).** Advanced study of Chaucer's major works. Readings are in Middle English, and include selections from the Canterbury Tales, Troilus and Criseyde, the dream visions, the lyrics, and a limited number of comparative readings in other late 14th century authors such as Langland, the Gawain-Poet, and Gower. Emphasis is placed on close reading and interpretation of the text, and on the historical context of Chaucer's work, which involves study of subjects such as the black plague, the peasants' revolt, guilds, fairs, chivalry, trade, and healing. Repeatable once for credit with a change of content and departmental consent.

**ENGL 720. Seminar in Old English (3).** Cross-listed as LING 720. Advanced course in Old English language and literature. Studies the Old English language in enough detail to enable the reading of some prose and poetry, including parts of Beowulf and the elegiac poems in the original. Some literature, including all of Beowulf, is read in translation. Particular attention is given to close reading and interpretation of the text, and to important literary and cultural features of the period and its Norse heritage. Repeatable once for credit with a change of content and departmental consent.

**ENGL 721. Seminar in Medieval Literature (3).** Advanced study of selected works from old and middle English literature and continental literature of the medieval period, with an emphasis on close reading as well as the social and cultural context of the readings. Content varies at the discretion of the instructor. Readings may include epic, romance, drama, lyric, and satire, as well as examples of discourse—oralatory, history, memoir, political writings, philosophy—and major works and authors such as Beowulf, Cynowulf, Wulfstan, Chretien de Troyes, Marie de France, Chaucer, the Gawain-Poet, and Malory. Repeatable once for credit with a change of content and departmental consent.

**ENGL 722. Seminar in Renaissance Literature (3).** Advanced study of works by important writers of the 16th and earlier 17th centuries. Content varies at the discretion of the instructor. Offerings may be thematically or historically focused, and may include poetry, drama, fiction, or nonfiction prose. Repeatable once for credit with a change of content and departmental consent.

**ENGL 724. Seminar in Restoration and 18th Century British Literature (3).** Advanced study of major selected works and authors of the period between 1660 and 1799, covering the crucial genres of drama, poetry, the essay, and the novel. Content varies at the discretion of the instructor. Study may include satire, political discourse, comedy, tragedy, parody, and/or innovative forms such as the novel and fictionalized biography. Canonical figures such as Congreve, Dryden, Pope, Swift, Fielding, and Johnson may figure prominently. Historical contexts are emphasized. Repeatable once for credit with a change of content and departmental consent.

**ENGL 726. Seminar in Romantic Literature (3).** Advanced study of the authors, genres, themes, and/or movements in late 18th and early 19th century literature, with content varying at the discretion of the instructor. Possible topics might include Romantic-era women writers, the historical contexts of the French Revolution and British imperialism, the rise of the novel, the canonical Romantic poets (Blake, Wordsworth, Coleridge, Shelley, Byron, and Keats), the development of mass print culture, and/or representations of sublime landscapes, solitary meditation, and European travel. Repeatable once for credit with a change of content and departmental consent.

**ENGL 728. Seminar in Modern British Literature (3).** Advanced study of the authors, genres, themes, and/or movements in British literature (1900 to 1980). Possible topics may include the British novelists (Conrad, Lawrence, Woolf, Forster, Joyce, Waugh, Greene, Amis, Durrell, Burgess, etc.); the British poets (Housman, Yeats, Lawrence, Eliot, Auden, Thomas, Hughes, etc.); the playwrights (Shaw, Beckett, Eliot, Coward, Maugham, etc.); the Victorians (Shelley, Keats, the dream Kipling, etc.); the Victorian poets (Tennyson, Browning, Arnold, Arthur Hugh Clough, Dante Gabriel Rossetti, Christina Rossetti, George Meredith, Alcagon Charles Swinburne, etc.); the Victorian prose writers (Carlyle, Mill, Newman, Ruskin, Arnold, Pater, etc.). The seminar may also focus on additional topics, novels, novels, and dramatists, such as modernism, postmodernism, etc. Repeatable once for credit with a change of content and departmental consent.

**ENGL 730. Seminar in Victorian Literature (3).** Advanced study of the authors, genres, themes, and/or movements in Victorian literature (1832–1900). Possible topics might include the Victorian novelists (William Thackeray, Charles Dickens, George Eliot, Anthony Trollope, Thomas Hardy, Rudyard Kipling, etc.); the Victorian poets (Tennyson, Browning, Arnold, Arthur Hugh Clough, Dante Gabriel Rossetti, Christina Rossetti, George Meredith, Algernon Charles Swinburne, etc.); the Victorian prose writers (Carlyle, Mill, Newman, Ruskin, Arnold, Pater, etc.). The seminar may also focus on themes within Victorian literature, such as the Young England movement, the Higher Criticism and its effects, the Woman Question, industrialization and labor, or the Victorian Empire. Repeatable once for credit with a change of content and departmental consent.
ENGL 733. Seminar in Contemporary Literature (3). Covers selected topics in the literature of the last quarter-century, including literature in translation. Deals with a broad range of authors and genres. Repeatable for credit with change of content and departmental consent.

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 199A (Writing About Film) and 15 additional credit hours in any film-oriented course from any department and discipline that offers such courses. 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.

Film Studies Minor
The film studies minor consists of 18 credit hours from the courses listed below, selected with the approval of the coordinator of film studies. Courses approved for the film studies minor are:

- ANTH 150 American Culture in Film
- COMM 220 Introduction to Film Studies
- ARTG 231 Color Studio Photo I
- ENGL 307 Narrative in Literature and Film
- ENGL 508 Critical Studies in Film
- COMM 304 Studio Video Production
- POLS 390V Topics in Film (film topic varies)
- ART G 430 Television for Graphic Design
- WOMS 480A Hollywood Melodrama

The Women’s Film
HIST 399 The Holocaust in Film*
WOMS 523 Feminist Film Criticism
SPAN 515 Classic Spanish Films*
COMM 604 Video Storytelling

Geography (GEOG)
Wichita State University does not offer a major in geography. GEOG 201 and 235 are intended as natural sciences courses, while GEOG 125 and 210 are social sciences courses.

Geography Minor. Students may minor in geography with 15 hours. Nine hours must be upper-division and at least 9 hours must be from WSU. A minor in geography can be useful to students majoring in history, anthropology, and political science, or for anyone interested in globalization or in understanding the diverse world in which we live.

Lower-Division Courses

- GEOG 150. Workshop in Geography (1–4). Short-term courses focusing on geographical problems. Prerequisite: instructor's consent.
- 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.
- GEOG 235. Meteorology (3). General education further study course (natural sciences). Cross-listed as GEOL 235. 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 Courses

Courses for Graduate/Undergraduate Credit

- GEOG 510. World Geography (3). A study of world regions including an analysis of each region's physical, political, economic, historical, and cultural geography. Focus on a specific geographical problem for an in-depth study and analysis. May not be taken if credit has been received for GEOG 210. Prerequisite: instructor's consent.
- GEOG 530. Geography of Latin America (3). General education further study course (social sciences). Physical, political, economic, historical and human geography of Latin America.
- GEOG 542. Geography of Europe (3). General education further study course (social sciences). Physical, political, economic, historical, and human geography of Europe.
- GEOG 695. Special Studies in Geography (1–3), 3R or 2R; 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 (GEOL)
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 department's assessment program. Students also are required to take at least one integrating capstone course, preferable during their senior year. Capstone courses are identified below.

The department of geology also offers graduate degree work at the Master of Science level in the earth, environment, and physical sciences (EEPS) degree program. This program offers students advanced training in methodology, critical and creative thinking in scientific research, and advanced knowledge and skills in geology, environmental science, or physics. For more information about this graduate program, 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 and other students interested in geology include 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 co-sponsor such extra-curricular activities as field trips, visiting lecturers, short courses, attendance at academic conferences, and social gatherings.

**Geology Major—BA.** The BA degree program, providing flexible, broad training in the Earth sciences, is 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 discovering geology as an interest later in their college of 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
   GEOL 102 Earth Science & the Environment, with lab (4) or
   GEOL 111 General Geology ............ 4
   GEOL 302 Earth and Space Sciences ... 3
   GEOL 312 Historical Geology ......... 4
   GEOL 320 Mineralogy & Optical Min. ... 4
   GEOL 526 Sedimentary Geology ....... 3
   GEOL 544 Structural Geology .......... 3
   One of these capstone courses:
   GEOL 621 Geochemical Cycling ....... 3
   GEOL 640 Field Geology ............... 6
   GEOL 650 Geohydrology ............... 3
   GEOL 678 Geologic Perspectives on Climatic Change ............. 3
   GEOL 681 Computer Apps. in Geology ... 3

2. An additional 6 hours of electives chosen from the Catalog listings for geology to match the student's career interests and in consultation with an adviser from the geology department.

3. Required supporting sciences:
   STAT 370 Elementary Statistics ........ 3
   STAT 310 Precalculus Mathematics (5) or
   MATH 123 College Trigonometry ....... 3
   GEOL 102 Earth Science & the Environment, with lab (4) or
   CHEM 211 General Chemistry .......... 3
   PHYS 111 Introductory Physics ........ 3
   (if the student did not have high school physics)

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 211 and 212, and MATH 242 or earning a BS degree in geology. PC 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 .......... 4
   GEOL 312 Historical Geology ........ 4
   GEOL 320 Mineralogy & Optical Min. .. 4
   GEOL 324 Petrology and Petrography .... 3
   GEOL 526 Sedimentary Geology ....... 3
   GEOL 540 Field Mapping Methods ...... 2
   GEOL 544 Structural Geology .......... 3
   GEOL 527 Physical Stratigraphy ....... 3
   GEOL 570 Biogeology .................. 3
   Required capstone course:
   GEOL 640 Field Geology ............... 6

2. Additional 11 hours of upper-division geology electives chosen to match the student’s career interests and in consultation with an adviser 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 211 and 212, General and Inorganic Chemistry ............. 10
   PHYS 213 and 214, General College Physics I and II (10) or PHYS 313 and 314, Physics for Scientists 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. PC 105 is recommended for students with little experience with computers.

**Minor.** A minor in geology consists of at least 15 hours of geology including GEOL 102 (with lab for 4 credit hours) or GEOL 111. It is suggested that students minor in geology consult with the department in selecting courses that would be most appropriate to their major field of study.

**Lower-Division Courses**

- **GEOL 102. Earth Science and the Environment (3).**
  3R, or (4). 3R; 2L. General education introductory course. Studies the processes that shape the Earth's physical environment; the impact of human activities on modifying the environment; use and abuse of natural resources including soil, water, and air; waste disposal; and natural environmental hazards. GEOL 102 (4) 3R; 2L is recommended for students desiring general education credit for a natural science laboratory experience. Credit not allowed in both GEOL 102 and 111.

- **GEOL 111. General Geology (4).**
  3R; 2L. General education introductory course. An overview of the Earth, concepts of its origin, composition, materials, structure, landforms, and history; and natural processes operating to create the Earth's physical environment. May require field trips into the earth laboratory. Credit not allowed in both GEOL 102 and 111.

- **GEOL 235. Meteorology (3).**
  General education further study course (natural sciences). Cross-listed as GEOG 235. 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 geology. Requires field trips at the option of the instructor. Prerequisite: instructor's consent.

**Upper-Division Courses**

- **GEOL 300. Energy, Resources, and Environment (3).**
  General education issues and perspectives course. Studies the dependence of human beings on the Earth’s metallic, non-metal, industrial mineral, energy, soil, and water resources; the methods for their discovery and recovery; their uses; and the influence of economics, politics, and social institutions in determining how exploitation affects the natural environment and our standard of living. Prerequisite: any introductory course in biology, chemistry, geology, or physics.

- **GEOL 302. Earth and Space Sciences (3).**
  2R; 2L. General education further study course. A general survey of the physical environment, including elements of geology, geography, meteorology, climatology, oceanography, and astronomy. May require field trips.

- **GEOL 310. Oceanography (3).**
  General education further study course. Geologic origin of ocean basins and sea water; dynamics of waves, tides, and currents; physical and chemical properties of sea water; diversity of life in the oceans; economic potential, law of the sea, and the effect of people on the marine environment.

- **GEOL 312. Historical Geology (4).**
  2R; 2L. General education further study course. Systematic review of earth history and its preservation in the rock record using field evidence for sequences of physical, biological, and tectonic events in selected areas. Also includes the origin and evolution of life. Field trips...
required. Prerequisite: GEOL 102 or 111 or GEOL 302 or equivalent.

GEOL 320. Mineralogy and Optical Mineralogy (4). 1R; 6L. Elementary crystallography. A study of the origin, composition, and structure of the rock-forming minerals with laboratory emphasis on recognition of their typical forms, occurrences, associations, and identification, and optical recognition via thin-section petrography. May require field trips.

Prerequisites: GEOL 102 or 111, CHEM 103 or 211; MATH 112 or 123.

GEOL 324. Petrology and Petrography (3). 1R; 6L. The origin, distribution, occurrence, description, and classifications of igneous, metamorphic, and sedimentary rocks with laboratory emphasis on their hand-sample and optical (thin-section petrographic) recognition. Prerequisite: GEOL 320.

GEOL 410. Honors in Geology (3). 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 (2–6). Off-campus, systematic field study in a selected area of geologic significance. Course is given upon demand and may be repeated for credit when locality and content differ. Where appropriate, travel, lodging, and board costs are charged.

Courses for Graduate/Undergraduate Credit

GEOL 526. Sedimentary Geology (3). 2R; 3L. Origin, classification, primary structures, and physiochemical processes controlling deposition of sedimentary rocks. Reviews diagenesis of carbonate rocks and evaporites. Includes a survey of modern and ancient sedimentary depositional environments and petrographic study of sedimentary rocks in thin sections. May require field trips. Prerequisite: GEOL 102 (with lab) or 111.

GEOL 540. Field Mapping Methods (2). 6L. Field mapping methods with special reference to use of level, compass, barometer, alidade, and aerial photos. Field trips required. Prerequisite: GEOL 102 (with lab) or 111 or GEOL/GEOG 201.

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 312; and GEOL 324 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 biostratigraphy; 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 humans; importance of these influences in environmental management and land-use planning. Prerequisite: GEOL 111 or GEOL 102 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. Biogeology (3). 2R; 3L. General education further study course. Systematic survey of major fossil biogeological materials, analysis of the origin and evolution of life, and paleoecological interpretation of ancient environments and climates. Includes handling and binocular microscopic examination of major fossil biogeological materials. Includes application of analytical fossil data to the solution of problems in biogeochronology, paleoecology, paleoecology, and paleography. Cites examples from fields of invertebrate, vertebrate and microfossilogy, and palynology. May require museum and field trips. Prerequisite: GEOL 312.

>GEOL 574. Special Studies in Palaeontology (3). 2R; 3L. General education further study course. A systematic study in selected areas of biogeology and paleontology. Content differs, upon demand, to provide in-depth analysis in the fields of: (A) invertebrate paleontology; (B) vertebrate paleontology; (C) microfossilogy; (D) palynology; and (E) paleoecology. Gives appropriate laboratory instruction in the systems, taxonomy, and biogeological relationships within the selected fields listed. May require field trips. Repeatable for credit to cover all five areas listed.

GEOL 621. Geochemical Cycling (3). Capstone course. The geochemistry of earth materials and the important geochemical 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 211; 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 (3). Offers, systematic field study in a selected area of geological significance. Course given upon demand; repeatable for credit when locality and/or content differ. Where appropriate, travel, lodging, and board costs are 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. Held at an off-campus field camp for five weeks (including weekends). Preparation of geologic columns, sections, maps, and an accompanying report are due on campus during the sixth week. Prerequisite: GEOL 524; 540, 554, 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 658. Geologic Perspectives on Climatic Change (3). Capstone course. Modern climate and climatic changes and analysis of climatic deterioration; systematic study of geologic evidence of climate change through time. Emphasizes theoretical causes, feedback mechanisms, and recognition of effects on climatic perturbations in the rock record. Prerequisites: GEOL 312 and 526.

GEOL 660. 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; fossil and nuclear fuels. Studies environmental aspects of resource exploitation and use, generation and disposal of waste, environmental hazards, and reclamation. 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, origin and types of porosity systems, 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 geologic occurrence of subsurface strata; characterization of subsurface strata, including laboratory analysis of recovered subsurface samples; application to petroleum geology, mineral resource evaluation, 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: (a) general, (b) mineralogy, (c) petrology, (d) structural, (e) paleontology, (f) economic geology, (g) sedimentation, (h) stratigraphy, (i) geophysics, and (k) petroleum. Requires a written
final report. Prerequisite: consent of sponsoring faculty.

GEOL 702. Environmental Science I (5). 3R; 4L. 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. GEOL 702 and 703 (or equivalent) are required for all graduate students in the EEPS master's program. Prerequisite: acceptance in the EEPS master's program or instructor's consent.

GEOL 703. Environmental Science II (5). 3R; 4L. 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. 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 EEPS master's program. Prerequisite: GEOL 702 or instructor's consent.

GEOL 704. Environmental Science Colloquium (1). Cross-listed as CHEM 704. Students in the EEPS master's program are required to enroll two semesters 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 S/U only. May be repeated for up to four hours credit.

GEOL 706. Environmental Science Internship (3–6). Cross-listed as CHEM 706. Students in the EEPS master's program 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; emphasizes application to sedimentary environments and environmental problems. Requires some laboratory work. Prerequisites: GEOL 324 and CHEM 212 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 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 systems. 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-burial 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 exploitation, 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's consent.

GEOL 740. Basin Analysis (3). A practical course in analysis of petroleum-bearing or other sedimentary basins; emphasizes detailed stratigraphy 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; cratonic sequences of North America. Required seven-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 aqueous and framework chemistry. Computer simulation models used whenever practical along with detailed analysis of case histories, including those related to environmental geoscience. Prerequisites: GEOL 690, 681, MATH 344, or instructor's consent.

GEOL 752. Climatic Evolution of the Earth (3). Basics of climatology and paleoclimatology, and recognition of paleoclimatic indicators in the rock record. Climatic changes at different scales in Earth history and possible causes, and development of climatic records. Roles of climate change on the evolution of Earth's biosphere, hydrosphere, atmosphere, and lithosphere. Field trips may be required. Prerequisite: GEOL 721, graduate standing, 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; 3-D seismic exploration; and seismic refraction techniques. Prerequisites: completion of geology undergraduate math and physics requirements; MATH 344 or 553; 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 datasets. 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 un-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.

GEOL 795. Earth and Space Physics (3). Cross-listed as PHYS 795. An introduction to the geosciences and astrophysics of the solar system. Topics include the surface, interior and atmospheres of the planets with a comparative planetology approach, and the sun-planet system including solar physics and the effect of the sun on the earth’s environment and geologic history. Prerequisites: PHYS 313–314, and MATH 242, or EEPS 721, or instructor's consent.

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

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 these 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 assures 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, communication, and public affairs.
Major. A major for the Bachelor of Arts (BA) degree requires the successful completion of a minimum of 33 hours in history, at least 15 of which must be earned at Wichita State. All majors complete HIST 300 and 698 (PHIL 510, Philosophy of History, may be accepted in place of HIST 698); 3 credit hours of either HIST 100, 101, 102, or 103; 3 credit hours of either HIST 131 or 132; 6 credits of upper-division (300-level or above) hours, and 3 credit hours from each of the following areas: ancient and medieval history, modern European history, or American history (including Latin America), at the 500 or 600 level for a total of 9 credit hours.

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 adviser 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 introductory 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 1648 (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 people, cultures, and ideas which contributed to the growth of the societies of Western Europe.

> HIST 102. History of Western Civilization Since 1648 (3). General education introductory course. Introductory survey of the political, social, cultural, and economic developments in Europe from 1648 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 world 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 POLS 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. Explores 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 WWI, WWII, 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 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 articles 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. Explores 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 20th 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, Mycenaeans, Etruscans, Mohenjo-Daro, Khymers, Incas, Mayas, and Aztecs.

HIST 310. Special Topics in History (2–3). May be taken only twice for credit toward a history major.

> HIST 311. 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 312. Modern Latin America (3). General education further study course. Begins with the wars for independence, continues with the challenges to achieve nationhood, and concludes with an examination of major social political, and economic issues Latin American nations faced in the 20th century. Roles of Bolivar, Santa Anna, Evita, and Castro are key components.

> HIST 314. English History (3). General education further study course. English history from the beginning of the Stuart period to the present.

HIST 315. Modern German History (3). Surveys German history from the end of the Napoleonic era in 1815 to the fall of the Berlin Wall in 1989.

> HIST 317. The Holocaust (3). General education further study course. Investigates the conditions within in 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 320. Russian History Survey (3). General education further study course. A survey of Russian history from A.D. 862 to the present.

HIST 324. 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 325. Survey of Public History (3). A survey of the various arenas 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 1500–1924 (3). General education further study course. Cross-listed as
ETHS 330. An introduction to the history 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.

>HIST 333. Ethnic America in the 20th Century (3). General education further study course. Cross-listed as ETHS 334. An in-depth study of the ethnic experience in the 20th century. Major historical topics include identity formation, intergenerational conflict, class differentiation and social mobility, the politics of ethnicity, resistance and civil rights movements, the racialization 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 revivals; 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 352. Classical Mythology (3). Cross-listed as GREK 325 and LATN 325. 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 the course also includes Greek art. All readings in English; requires no previous knowledge of Latin or Greek.

>HIST 357. Women in the Ancient World (3). General education further study course. Examines the myth and realities of women's lives in the traditional societies of ancient Greece and Rome. Explores how women's social and economic roles varied from culture to culture and how they changed over time from the age of primitive matriarchy to the Christian era. Investigates the influence of these cultures on our own.

>HIST 359. The Greek World (3). General education further study course. Surveys Greek history from the Minoans to Cleopatra. Examines the early relations between the Greeks and other ancient civilizations such as Assyria and Egypt, the birth and decline of democracy in Athens, the world empire of Alexander the Great, and the later influence of Greek culture on the Roman world. Also discusses trade, law, and family life.

>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 covers work done at museums or archival divisions of libraries. Cannot be included for a history major or minor. Offered Cr/NCr 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. Examines the eras 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. Explores the origins and history of the bloodiest war this nation has ever fought. Students 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, culture, empire, gender, and reform.

>HIST 506. 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 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, and 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 is a major component of this course. The emphasis, however, is "history from the bottom up" as the lives of ordinary Americans are examined.

>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. 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, in case studies of individual firms, in biographies of business people, and in 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. Focuses 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 1900 (3). General education further study course. Examines American diplomatic history during the 20th 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. Surveys the American military heritage and its role in shaping the modern United States. Studies 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). General education further study course. A history of Wichita, Kansas, 1865–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). 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 WOMS 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 pre-historic 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 20th 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 553. 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 Pancho Villa 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. Examines the social, political, and cultural history of the Mediterranean and Near East from the foundation of cities and the invention of writing in the third millennium to the Dark Ages. Covers the major civilizations of Mesopotamia, Iran, Egypt, and Syria-Palestine through both their writings and material remains. Special attention will be given to the Minoans and Mycenaeans.

HIST 559. Classical Athens (3). General education further study course. Focuses on Athens from the sixth to the fourth centuries, from the emergence of the Greek city state to the age of Demosthenes. Examines how Athens founded and maintained the earliest democracy and how individuals such as Socrates, Pericles, Plato, and Aristotle fit into their society. Other topics may include warfare, the family, farming, commerce, and the law.

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. Examines changes in Greek culture and society as a result of the spread of Hellenism to the older kingdoms of the New East and India. Includes the rise of the Roman Republic in the context of the Greek world in the first century B.C. with the defeat of Cleopatra, or the last queen of Egypt.

HIST 562. The Roman Republic (3). General education further study course. Covers the period of early Roman history from the founding of the city to the first emperor Augustus. Includes coverage of wars and the Roman army, government, society, and culture. Emphasizes the end of the republic during the dictatorship of Julius Caesar, the civil wars, and the role of the emperor Augustus.

HIST 563. The Roman Empire (3). General education further study course. Focuses on social and cultural achievements of the Roman empire starting with the dissolution of the republic and the invention of the empire by Emperor Augustus in the first century B.C. Ends with the sack of Rome in the fifth century A.D. Emphasizes the spread of Roman law, government, and culture to areas outside of Italy, including Roman Britain, Judea, and Roman Egypt; the rise of Christianity; and the reasons for the decline of Rome.

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 1500.

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 became the English 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. 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, 1871–1945 (3). General education further study course. A focused survey of European history between the years 1871–1945. Among the subjects covered are the phenomena of nation building and the imperial project, the rise and growth of European socialism, 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 Kiev and Muscovite Russia.

HIST 589. 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 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 rationalism and examine how historians have studied and disagreed over these topics.
HIST 698. Historiography (3). Required of undergraduate history majors. This capstone course engages students in a systematic analysis of major historians and schools of historical thought. Credit assignments and discussions encourage students to examine the basis of their ideas about history as an academic discipline. Prerequisite: 12 upper-division hours in history or instructor’s consent.

HIST 701. Introduction to Public History (3). Introduces the various areas of public history including the practice and professional history. Students learn the philosophies, techniques, and practices that comprise the field and the way 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 types of preservation in the United States, 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. Students 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 Methods (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, medieval, modern, European, and American field bibliographies. Repeatable for credit. Prerequisite: departmental consent.

HIST 730. 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 750. Workshop in History (1–3). Repeatable for credit but does not satisfy requirements for history majors.

HIST 781. Cooperative Education in History (2). Graduate history students participate in internship experiences through the cooperative education program. May substitute for HIST 803. A maximum of 4 credit hours of any combination of HIST 803 and HIST 781 may count toward degree requirements with permission from the program. Offered Cr/NoCr only. Prerequisite: instructor’s consent.

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

Interdisciplinary Liberal Arts and Sciences Program (LASI)

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, Global Issues, Introduction to Pre-medical Professions, and Application Process for Medical and Professional Schools. 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 LASI. Further, the foundation courses for the Master of Arts in liberal studies are part of the LASI range of coursework. More information about LASI, its courses, and its programs may be obtained through the LAS Advising Center, 115 Grace Wilkie Hall, or at wichita.edu/advising.

Certificate for Asian Studies

This certificate encourages a wide-ranging knowledge of Asia. This is accomplished by taking a variety of courses taught across the college and university. The certificate encourages students to study Asia through Asian languages, thereby gaining a better understanding of the history, society, culture, and thought of peoples living in Asia. The certificate applies to the following languages currently taught at the university: Chinese, Japanese, and Russian. It will be expanded to include other qualifying languages, histories, and cultures, if and when they are added to the curriculum.

Students who have made the effort to attain language proficiency are most likely to profit from this enhanced background, as they are more likely to continue study of the languages and related cultures and to visit or do work which relates directly to Asian nations.

The certificate is based on a student’s study of one of three languages and five additional courses, for a total of 25 hours:

• 10 hours of Chinese, Japanese, or Russian language. All courses counted must be in the same Asian language. Students are expected to include these classes among the first they take in fulfillment of certificate requirements.

• 15 hours of courses with significant Asian content (one-third or greater). Specific decisions about appropriateness of content is decided by certificate coordinators. Students are encouraged to take an interdisciplinary approach and will not be permitted to count more than two courses in this category offered by any one department. An interdisciplinary approach allows students to see how a variety of scholarly perspectives may be brought to bear on common issues.

Courses with Asian content include:

ANTH 312 Asia Pacific Cultures ............. 3
ANTH 398 Travel Seminar ................. 1–4
ANTH 515 China .......................... 3
ANTH 516 Japan People & Culture ........ 3
ANTH 690 Field Methods in Anthr. ...... 3–6
ENGL 345 Studies in Comparative Lit .... 3
HIST 110 Russian Studies .................. 3
HIST 320 Russian History Survey .......... 3
HIST 324 Modern East Asian History .... 3
HIST 506 The Vietnam Conflict .......... 3
HIST 588 History of Early Russia ........ 3
HIST 589 History of Imperial Russia ..... 3
HIST 592 History of Soviet Union ....... 3
HIST 593 Former Soviet Union .......... 3
PHIL 350 Ancient Chinese Philosophy ... 3
PHIL 365 Survey in Asian Philosophy ... 3
PHIL 565 Topics in Asian Philosophy ... 3
PHIL 590T Japanese Philosophy & Film ... 3
POLS 520 Politics of Modern China ....... 3
WOMS 370 Women in World Religions .... 3
WOMS 379 Asian Women in Modern Hist ... 3

For information and application procedures please contact Dr. Robert Feleppa (316) 978-3125, robert.feleppa@wichita.edu, or Dr. Helen Hundley (316) 978-7745, helen.hundley@wichita.edu

Certificate in Great Plains Studies

Fairmount College offers a certificate in Great Plains studies, an interdisciplinary program for undergraduate and graduate students. This certificate is for students interested in supplementing their major field of study with a concentration of 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 maintain 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 (LASI 201, 501, and 510) with the remaining courses selected from these designated courses: ANTH 612, 613, BIOL 503, 575, ENGL 343, ETHS 332, 380, GEOL 562, 570, HIST 535, and 536.

Certificate in Medieval and Renaissance Studies

The Medieval and Renaissance studies certificate explores the diversity of European culture, drawing from WSU course offerings in art history, literature, music, languages, political science, and history.

The undergraduate certificate may be earned by any undergraduate or graduate student and requires coursework from at least three departments including history, literature, language, and another discipline. All grades for the certificate must be C or better.

The certificate may be combined with a major (e.g., English, history) or taken as an elective interest.

Students should be advised by a member of the coordinating committee. More information and advising, contact coordinator: William Woods (978-6652) william.woods@wichita.edu.

Required Courses

Minimum of 18 hours of credit in Medieval and Renaissance studies coursework from at least three departments. Students may choose from the following courses:

ARTH 320 Early Christian Art and Architecture
ARTH 323 Medieval Art
ARTH 328 Italian Renaissance
ARTH 329 Northern Renaissance
ARTH 520A The Holy Image
ENGL 317 History of the English Language
ENGL 340 Major Plays of Shakespeare
ENGL 515 Studies in Shakespeare
ENGL 520 Epic and Romance
ENGL 521 Medieval Literature
ENGL 522 Renaissance Lit.
ENGL 715 Chaucer
ENGL 720 Old English
HIST 566 Medieval History 500–1200
HIST 567 Medieval History 1200–1500
HIST 568 Social, Economic and Intellectual History of the Middle Ages
HIST 569 Medieval England
HIST 575 The Italian Renaissance
HIST 576 The Reformation
HIST 577 Medieval Women
FREN 551 French Civilization: The Middle Ages to the Restoration
FREN 629 Medieval French Literature
FREN 630 Renaissance French Literature
SPAN 532 Survey of Spanish Literature
SPAN 623 Seminar in Spanish
SPAN 623B El Cid
MUSC 334 History of Music I
POLIS 345 Classical/Medieval Pol. Theory

Notes:
- A total of 6 hours of credit (in exceptional cases, 9 hours) from other universities may be applied toward the certificate with approval.
- A total of 6 hours of credit (in exceptional cases, 9 hours) may be taken as independent study.

Students must complete all work for the certificate within six (in exceptional cases, seven) years following admission to the program.

New additions to the list of courses will be announced as they are approved.

Language Requirement: Students are required to complete a minimum of one course in a medieval language. However, those anticipating graduate work in a field within Medieval and Renaissance studies are strongly encouraged to take the Latin sequence (Latin 111–112–224). Students may choose from the following: Latin, Old English, Middle English, Old French, Medieval French, Medieval Spanish, Middle High German, Old Norse.

Note: Modern language courses (e.g., French 111) do not count toward the 18 hours needed to complete the certificate. Languages not taught on a regular basis may be taken as independent study courses with the permission of the instructor.

Final Project: The Final Project should be a substantial essay of no less than 20 pages of text (not including notes) that uses primary sources. The essay should be submitted to the program coordinator at least three months before the student graduates.

The student will present his or her essay at a final project review staffed by the coordinator, the professor who supervised the writing of the essay, and one other program faculty member. The coordinator will be responsible for scheduling the review.

Lower-Division Courses

LASI 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 assists 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.

LASI 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/NCr only.

LASI 101. Introduction to the University (2–3). Designed especially for first-year students. A gateway to WSU faculty, staff resources and a toolkit for academic success at WSU. Students learn skills in critical thinking, university-level reading, studying, test taking, and library research. They gain insight into issues of teaching and learning styles, diversity of thought and culture, personal finances, health, and the benefits of engagement in student organizations. Students learn to use online and printed resources as tools to find important information about academic policies and procedures, and WSU campus resources such as advising, counseling services, and career exploration. Students learn to use the WSU computer system for tasks such as enrollment, dropping and adding courses, and checking financial aid status. Students also learn to value and to participate in a collaborative advising process where students and advisers share responsibilities, and they begin to establish long- and short-term academic goals, leading to a realistic individual plan for graduation. Students who actively participate in this course have a proven record of academic success and an improved graduation rate. Offered in a variety of formats, including online. Students earn a letter grade in this course.

LASI 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/NCr only.

LASI 150. Workshop: Special Topics (1–3). Meets identified needs of specific audiences. Offered Cr/NCr only.

LASI 190. Inquiry in Liberal Arts and Sciences (3). Introduces the liberal arts and sciences as the foundation of the university education. Teams 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.
LASI 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.

LASI 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

> LASI 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, genetic, economic strategies, the environment, and health and education. May be applied to any of the disciplines of the humanities, social sciences, and natural sciences.

LASI 350. Workshop: Special Topics (1–3). Meets identified needs of specific audiences.

LASI 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.

LASI 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; and 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.

LASI 479. International Student Exchange Program (12–18). The International Student Exchange Program encourages undergraduate students to attend a university outside the U.S. while retaining full-time student status and paying regular tuition at WSU. A student who wishes to enter this program must apply. Application forms may be obtained from the WSU Office of International Education; after that the student meets with his or her assigned program adviser 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 above documents the status and the tuition payment of the student enrolled in ISEP 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 LASI hours of enrollment with only the International Student Exchange Program designation remaining on the transcript.

LASI 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 NSE program for the duration of the residence at the collaborating university. Repeatable for enrollment periods or a maximum of 30 credit hours.


Courses for Graduate/Undergraduate Credit

LASI 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 archeological sites, nature preserves, and other places of significance in Great Plains Studies. Prerequisite: LASI 201 or 800 or instructor's consent.

LASI 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 undergraduate or graduate and which reflect their particular interests in Great Plains Studies. Supplemental resources provided by faculty through lectures, consultation, course materials, and mentoring. Prerequisites: 12 hours of Great Plains Studies coursework, including LASI 201 and 501; under-graduates must have senior status or instructor's consent.

LASI 680. International Student Exchange Program—Graduate (9). 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 apply. Application forms may be obtained from the WSU Office of International Education; after that the student meets with his or her assigned program adviser 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 ISEP 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 LASI hours of enrollment with only the International Student Exchange Program designation remaining on the transcript.

LASI 750. Workshop: Special Topics (1–3). Meets identified needs of specific audiences.

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

Liberal Studies

WSU offers an interdisciplinary Master of Arts in Liberal Studies (MALS) degree program for people who wish to pursue a particular topical or interdisciplinary interest at the graduate level, but find the existing programs either too specialized or insufficiently individualized. The MALS program offers students an opportunity to design a program of study to answer their particular needs and interests in a focused, coherent manner. For more information, consult the WSU Graduate Catalog.

Linguistics (LING)

There is no major in linguistics; however, an emphasis in linguistics is available through the general studies program or a Bachelor of Arts degree field major plan.

Minor. A minor in linguistics consists of 15 hours from the following courses. At least 6 hours must be from Group A.

Note. Courses applied toward another major or minor will not apply toward a minor in linguistics.

Group A—Basic Linguistic Theory

Lower-Division Courses

> LING 151. The Nature of Language (3). General education introductory course. An overview of the important facts about what language is and how it works and of the ways in which researchers in linguistics and in other disciplines, such as psychology, philosophy, and anthropology, explain and make use of language. Prerequisite: ENGL 101.

Upper-Division Courses

LING 306. Phonetics: Theory and Application (3). Cross-listed as CSD 306. Identification, production, and categorization of phonemes. Practice in phonemic and phonetic transcriptions of words using the International Phonetic Alphabet (IPA). Introduction to typical phonological acquisition and variations in speech production related to connected speech, cultural/linguistic diversity, and children's speech sound disorders. Lab required for reflective observation and analysis of developmental phonetics and variance due to disorders and linguistic differences.

> LING 315. Introduction to English Linguistics (3). General education further study course. Cross-listed as
LING 315. Introduces linguistic principles, including phonological and grammatical concepts.

LING 316. English Sentence Structure (3). Cross-listed as ENGL 316. The basic rules of English syntax, specifically designed for prospective teachers of English but open to all students interested in English sentence structure.

LING 317. History of the English Language (3). Cross-listed as ENGL 317. Linguistic and cultural investigation of the development of English. Prerequisite: LING 315 or departmental consent.

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. English Syntax (3). Cross-listed as ENGL 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 C—Areas of Contact Between Linguistics and Other Disciplines

Upper-Division Courses


LING 351. Linguistics and Foreign Languages (3). Cross-listed as ANTH 351 and MCLL 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 transcriptions of foreign languages) and principles of phonology; morphemics and principles of morphology; and syntax and semantics. Prerequisite: LING 151.

Courses for Graduate/Undergraduate Credit

LING 651. Language and Culture (3). Cross-listed as ANTH 651 and MCLL 651. Prerequisite: 3 hours of linguistics or MCLL 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.

LING 740. Graduate Studies in Linguistics (3). Selected topics in theories of language and methods of linguistic study. Repeatable for credit with departmental consent.

Others

Lower-Division Courses

LING 292. Linguistics. Special Studies (2–3). Topic selected and announced by individual instructors. 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 720. Seminar in Old English (3). Cross-listed as ENGL 720. Advanced course in Old English language and literature. Studies the Old English language in enough detail to enable the reading of some prose and poetry, including parts of Beowulf and the elegiac poems in the original. Some literature, including all of Beowulf, is read in translation. Particular attention is given to close reading and interpretation of the text, and to important literary and cultural features of the period and its Norse heritage. Repeatable once for credit with a change of content and departmental consent.

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 advisers, 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, 576, 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. MATH 451 is recommended.

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. MATH 451 is recommended.

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 due 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 CS 300 and 320, plus five courses selected from MATH, 331, 553, 657, 690, 751; STAT 774; CS 312, 410, 440, 510, 540, and 560. 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 advisers 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 course at a level of 400 or above approved by both the department of mathematics and statistics and the student’s major. Students are required to take at least one upper-division course in residence. Students shall not be allowed credit towards a minor for D grade work.

*All bachelor’s degrees in mathematics require a high-level algorithmic computer language. Therefore, the MATLAB course, MATH 451, is strongly recommended.*

**Non-credit Courses**

MATH 007. Arithmetic (3). A review and study of the basic arithmetic operations for the mature student whose previous training in arithmetic is inadequate for completion of college mathematics courses. Offered Cr/NCr only.

MATH 011. Beginning Algebra (5). Content consists of algebra topics usually covered in the first year of a standard high school algebra course. Offered Cr/NCr only. Not applicable to degree.

MATH 012. Intermediate Algebra (5). Content consists of topics usually covered in the second year of a standard high school algebra course. Offered Cr/NCr only. 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). A supplement to MATH 111 to be taken concurrently with designated sections of MATH 111 to allow students 5 contact hours for mastering college algebra. Offered Cr/NCr only. Corequisite: 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 in only 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 in only 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). A continuation of MATH 111 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 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 242. Calculus I (5). General education introductory course. Analytic geometry and the calculus in an interrelated form. Credit in both MATH 242 and 144 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 mathematics 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 321. Discrete Structures I (3). Cross-listed as CS 321. Provides a mathematical foundation essential to the entire computer science curriculum. Includes propositional and predicate logic, induction, recursion, and counting techniques. Prerequisite: MATH 242 or equivalent with a grade of C or better or CS 210 and 211, each with a grade of C or better.

MATH 322. Discrete Structures II (3). A continuation of MATH 321. 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 480. 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 (5). 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. Prerequisites: elementary education major and MATH 111 or equivalent with C or better or departmental consent.

MATH 502. Mathematics for Middle School Teachers (5). A study of the mathematical knowledge which forms the theoretical foundations of the applications of, and extensions of middle school mathematics. This capstone course serves to reinforce mathematics skills learned in prerequisite courses and assists students in recognizing the unifying principles within their mathematical experiences. Prerequisites: MATH 111, 121, 123, 144, 501, and STAT 370 or equivalent with a grade of C or better in each.
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 C or better.

MATH 513. Fundamental Concepts of Algebra (3). Defines group, ring, and field and studies their properties. Prerequisites: MATH 415 and 511 with C or better or departmental consent.

MATH 525. Elementary Topology (3). Studies topological spaces, open and closed sets, bases for topology, continuous mappings, homeomorphisms, connectedness and compactness, Hausdorff and other spaces, with special emphasis on metric spaces. Prerequisite: MATH 415 with C or better.

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. Prerequisite: MATH 344 with C or better.

MATH 547. Advanced Calculus I (3). Covers the calculus of Euclidean space including the standard results concerning functions, sequences, and limits. Prerequisites: MATH 344 and 415 with C or better in each.

MATH 548. Introduction to Complex Variables (3). Study of complex numbers, analytic functions, differentiation and integration of complex functions, line integrals, power series, residues and poles, and conformal mapping with applications. Prerequisites: MATH 344 with C or better.

MATH 551. Numerical Methods (3). Numerical methods of solving mathematical 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 552. Advanced Calculus II (3). A continuation of MATH 547. Prerequisites: MATH 511 and 547 with C or better in each.

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 initial value problems, 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 equation 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 (3). 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 690. 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). 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 (3). Examines the fundamental concepts of geometry. Prerequisite: MATH 513 with C or better or departmental consent.

MATR 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.

Personal Computing (PC)

No major or minor in personal computing is available.

Lower-Division Courses

>PC 105. Introduction to Computers and Applications (3). 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 personal computer 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.

PC 150-152. Workshop (1–5). Short-term courses focusing on new computer techniques. Repeatable for credit. Prerequisite: departmental consent.

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 credit hours required for graduation, students may take up to 15 credit hours of statistics courses in addition to the 45 or 50 credit hours of coursework allowed in mathematics.

Upper-Division Courses

>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 further study 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.

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 (3). Covers topics of interest not otherwise available. Prerequisite: departmental consent.

>STAT 571–572. Statistical Methods I and II (3–3). General education further study courses. 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 a selection of sample size, ratio, estimation, and cost. Applications studied include problems from social and natural sciences, business, and other disciplines. Prerequisite: any elementary course in statistics, such as STAT 370, SOC 501 or PSY 301 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 301 with C or better.

STAT 701. Matrix Theory (3). Studies matrix theory as a tool for studying linear models, analysis of variance, regression analysis, time series, and multi-variate analysis. Topics include eigenvalues and eigenvectors, matrix factorization and matrix norms, generalized inverses, partitioned matrices, Kronecker product, vec operator, and matrix derivatives, with applications to statistics in each topic and special emphasis on quadratic forms in normal variates. Although some background in statistics is desirable, it is not necessary. Prerequisite: MATH 511 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 (3). 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 economics, behavioral and biological sciences, and engineering. Uses computer packages for doing problems. Prerequisite: STAT 571, MATH 344 and 511 with C or better in each or departmental consent.

STAT 764. 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 covariance, randomized block designs, nested designs, and Latin square designs. Uses computer packages for doing problems. Prerequisites: STAT 571, MATH 344 and 511 with C or better in each or departmental consent.

STAT 765. Theory of Statistics I and II (3–3). An examination of stochastic dependence distributions of functions of random variables limiting distributions, order statistics, theory of statistical inference, non-parametric tests, and analysis of variance and covariance. Prerequisite: 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, autocorrelation, 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. Advanced 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 764 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 (BA) 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 (MA) in Spanish and participates in the Master of Arts in Liberal Studies (MALS) 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 Orléans, France (Wichita’s sister city).

See Exchange and Study Abroad programs for more details.

Graduate students in Spanish interested in applying for teaching assistantships should consult with the graduate coordinator.

Scholarships. Various scholarships are available for study in French, German, Latin, and Spanish, including Puebla, Mexico, and Strasbourg and Orléans, France.

Retroactive Credit Policy

WSU students may qualify for credit for previous foreign language experience. Language learning in courses prior to entering college, including high school language experience, can be validated by earning a grade of C or better in a WSU language course or courses beyond the first course in that language. For
placement purposes, it is assumed that one year of high school language is equivalent to one semester of college-level language. The credit earned by validation of previous experience is called retroactive credit.

Retroactive credit hours are considered to be credit by examination and are posted on the student’s transcript with a grade of CRE (credit by examination). Students pay for retroactive credit on a course-by-course basis.

Undergraduate students can apply for and earn a maximum of 16 hours of retroactive credit. Retroactive credit is not available for graduate students.

Students qualify for retroactive credit by completing the required validation course or courses, showing that a grade of C or better has been earned and posted to the student’s transcript for each required course, and completing the application process to claim the credit. Credit can be claimed at any time before graduation, allowing a reasonable time for processing.

A validation course is more advanced than the first course in that language. Validation courses are specified for each language and each level of retroactive credit. They must be taken at WSU. If a student fails to earn a grade of C in a required validation course, the student may retake the class and apply for retroactive credit once the grade of C or better is achieved and posted on the transcript.

International students for whom English is a second language cannot earn retroactive credit in their native language.

Credit earned at other college-level institutions, including community colleges, already appears on the student’s transcript and is therefore not eligible for retroactive credit.

Retroactive credit earned at WSU is not automatically transferrable to other institutions. If planning to transfer to another school, consult with the institution regarding its retroactive credit transfer policies.

Applications, validation course listings, and further information are all available at the College of Liberal Arts and Sciences Advising Center, 115 Grace Wilkie Hall, and in the MCLL office, or online at wichita.edu/advising under the retroactive credit category.

Participation in this program is by application to the College of Liberal Arts and Sciences Advising Center, which retains authority for final approval.

Questions about retroactive credit should be referred to an academic adviser in the College of Liberal Arts and Sciences Advising Center in 115 Grace Wilkie Hall.

Modern and Classical Languages and Literatures: Bilingual Option (BI-OP)

Specialization: A specialization in two languages (bilingual option) consists of 12 hours of each language beyond FREN 210, GERM 220, LATN 112, RUSS 210, or SPAN 210.

In addition, students choosing the bilingual option must complete MCLL 351 (Linguistics and Foreign Languages), and one of the following courses: LING 151 (Nature of Language), or LING/FREN/SPAN 635 (Introduction to Romance Linguistics option available to students who choose French, Latin or Spanish as one of their languages).

Students must also complete 3 language-related elective hours, which may include transfer credit, FREN/GERM/LATN/RUSS/SPAN 398 (Travel Seminar), LING 151 or LING/FREN/SPAN 635 ( whichever of these has not already been taken to fulfill the distribution requirement), LING 651/MCLL 651 (Language and Culture), a workshop, a special- or directed-studies course, a literature course, or a teaching option.

Summary:

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<th>Language A beyond 210/220 or Latin 112 . . . .12</th>
<th>Language B beyond 210/220 or Latin 112 . . . .12</th>
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<td>MCLL 351 ....................................</td>
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<td>LING 151 or LING/FREN/SPAN 635 .............</td>
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Distribution requirements: German: at least two of the following three: GERM 300, 324, and 524. Latin: at least two courses at the 500 level. French, Russian and Spanish: at least one 300 level and one 500 level course, or two 500 level courses.

Modern and Classical Languages and Literatures: Chinese (CHIN)

Lower-Division Courses

CHIN 111. Elementary Chinese I (5). Introduction to the Chinese language with emphasis on the fundamentals of phonetics, listening, speaking, reading and writing, as well as gaining an understanding of Chinese culture.

CHIN 112. Elementary Chinese II (5). Continues the introduction to the Chinese language with emphasis on improving the skills of listening, speaking, reading and writing, as well as gaining competence in Chinese culture. Prerequisite: CHIN 111 or one unit of high school Chinese or departmental consent.

CHIN 210. Intermediate Chinese (5). Designed to be a seamless continuation of the elementary level by building on the skills of listening, speaking, reading and writing, as well as helping learners better understand contemporary Chinese society and be able to discuss and analyze cultural differences. Prerequisite: CHIN 112 or two units of high school Chinese or departmental consent.

Modern and Classical Languages and Literatures: French (FREN)

Specialization. A specialization in French consists of a minimum of 33 credit hours beyond FREN 210 or its equivalent, and must include the following courses: MCLL 351, FREN 223, 300, 324, 526, 551, or 552, or equivalents. In addition, 15 hours must be selected from courses numbered above 500. 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 career. 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); and
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 credit hours beyond FREN 210 and must include FREN 223, 300, 324, and one upper-division French course numbered 500 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 the following are required: (1) FREN 300; (2) one of the
following courses: MCCL 351, FREN 526, or FREN 635; and (3) 12 hours of upper-division work in French. 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 adviser in the French department before enrolling in French courses.

Lower-Division Courses

FREN 111. Elementary French I (5). Develops the four fundamental skills in language learning (listening, speaking, reading, and writing) in an appropriate cultural context. Requires daily classroom and language laboratory work.

FREN 112. Elementary French II (5). Further develops the four fundamental skills in language learning (listening, speaking, reading, and writing) in an appropriate cultural context. Requires daily classroom and language laboratory work. Prerequisite: one unit of high school French, FREN 111, or departmental consent.

FREN 150. Workshop in French (2–4). Repeatable for credit.

FREN 210. Intermediate French (5). General education introductory course. Continues to develop the four fundamental language skills: understanding, speaking, reading, and writing, emphasizing 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 satisfies the LAS literature requirement. Prerequisite: FREN 210 or equivalent.

Upper-Division Courses

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 223 and 300, may fulfill the LAS literature requirement.

FREN 300. Intermediate French Readings II (3). General education further study course. Intensive reading and analysis of French literary works of all periods. Course satisfies 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/NG only. Prerequisite: FREN 324 or departmental consent.

Courses for Graduate/Undergraduate Credit


FREN 515. Major Topics in French (1–4). Special studies in (a) language, (b) literature, (c) commercial French, (d) the language laboratory, (e) music, (f) composition, (i) problems in teaching French, (j) civilization, (l) translation, (k) 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). Explores 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. No 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. Pre- or 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. Pre- or corequisite: FREN 300.

FREN 623. Seminar in French (3). Seminar in French literature, language, or civilization. Repeatable for credit. Prerequisite: FREN 300.

FREN 629. Medieval French Literature (3). Analysis and discussion of major French works from 900 to 1500, the literary movements to which they pertain, and the place of individual authors in the overall tradition. Prerequisite: FREN 300.

FREN 630. 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 Linguistics (3). Cross-listed as LING 635 and SPAN 635. Provides a contrastive examination of the phonology, morphology, and syntax of the major contemporary Romance languages (French, Spanish, Italian, Portuguese, Catalan, and Romanian). Introduces students to the sound and writing system and basic grammar of Latin and contrasts the phonological and grammatical systems of the contemporary Romance languages (French and Spanish in particular) with those of Latin. It compares specific features of the modern Romance languages synchronically (i.e., apart from Latin) as well. Students are advised to have a solid grounding in at least one Romance language (preferably French or Spanish) and a familiarity with at least one other (French, Spanish, Italian, or Portuguese). Prerequisite: departmental or instructor's consent.


FREN 726. French Composition and Stylistics (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. Elementary German I (5). Develops the four fundamental skills in language learning (listening, speaking, reading, and writing) in an appropriate cultural context. Requires daily classroom and language laboratory work.

GERM 112. Elementary German II (5). Further develops the four fundamental skills in language learning (listening, speaking, reading, and writing) in an appropriate cultural context. Requires daily classroom and language laboratory work. Prerequisite: one unit of high school German, GERM 111, or departmental consent.

GERM 220. Continuing German (5). General education introductory course. Grammar review and cultural readings primarily for students meeting the foreign language graduation requirement of Mount College. Recommended for all students with high school German and for transfer students with the college German equivalent to 112.

GERM 225. German Conversation (2). The development of oral fluency. Prerequisite: GERM 220, 223, or concurrent enrollment in 223.

Upper-Division Courses

>GERM 300. Intermediate German Readings (5). General education further study course. Reading and analysis of German short stories, prose selections from major contemporary works, and poetry, combined with oral and written practice and advanced grammar review. Prerequisite: GERM 223 or instructor's consent.

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). General education issues and perspectives course. Selected topics on significant aspects of life and thought in Germany. Emphasizes the modern period with special attention to the interaction of cultural trends in the European context. A knowledge of German is not required.

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.

Courses for Graduate/Undergraduate Credit

GERM 324. Advanced German Conversation and Composition (3). Prerequisite: GERM 324 or instructor's consent.

GERM 650. 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 300 or instructor's consent.

Modern and Classical Languages and Literatures: Greek (Ancient Classical) (GREK)

Minor. A minor in Greek consists of 11 hours beyond the 111–112 level.

Lower-Division Courses

GREK 111. Elementary Greek (5). Presents the basic grammar of Ancient Classical Greek and emphasizes early reading.

GREK 112. Elementary Greek (5). Continues the presentation of the basic grammar of Ancient Classical Greek and emphasizes early reading.

>GREK 223. Intermediate Greek (3). General education introductory course. Completes the presentation of basic grammar of Ancient Classical Greek and proceeds to the study of selections from the writings of Plato and Herodotus. Prerequisite: GREK 112 or equivalent.

>GREK 224. Intermediate Greek (3). General education further study course. Homer's Iliad. Prerequisite: GREK 223.

Upper-Division Courses

GREK 325. Classical Mythology (3). Cross-listed as HIST 352 and LATN 325. 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 the course also includes Greek art. All readings in English; requires no previous knowledge of Latin or Greek.

Courses for Graduate/Undergraduate Credit

GREK 515. Special Studies in Greek (1–4). Topic announced by instructor. Repeatable for credit. Prerequisite: GREK 224 or instructor's consent.

GREK 532. Advanced Greek (3). Thucydides. Prerequisite: GREK 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.

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 223. Intermediate Italian (3). Grammar review, composition, conversation, and cultural readings. Prerequisite: ITAL 112 or instructor's consent.

Modern and Classical Languages and Literatures: Japanese (JAPN)

The following courses are offered in Japanese.

Lower-Division Courses

JAPN 111. Elementary Japanese I (5). Introduces fundamentals of pronunciation, vocabulary building, practice in understanding and speaking phrases, reading, and writing. Also includes cultural material.

JAPN 112. Elementary Japanese II (5). A continuation of JAPN 111, completing the basic course in Japanese. Prerequisite: JAPN 111 or equivalent.

JAPN 223. Intermediate Japanese I (3). Includes fundamentals of pronunciation, vocabulary building, practice in understanding and speaking phrases, reading, and writing. Draws examples from Japanese culture, politics, and society. Prerequisite: JAPN 112 or equivalent.


Upper-Division Courses

JAPN 300. Special Studies (1–3). Topic announced by instructor. Repeatable for credit. Prerequisite: instructor's consent.

Modern and Classical Languages and Literatures: Latin (LATN)

Specialization. A specialization in Latin consists of a minimum of 30 credit hours beyond LATN 112 or its equivalent, and must include LATN 526 and MCLL 351. LATN 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 career. 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); and
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. LATN 398 does not count toward the minor in Latin.

### Lower-Division Courses

- **LATN 111. Elementary Latin I (5).** Presents the basic grammar of Latin and emphasizes early reading.
- **LATN 112. Elementary Latin II (5).** Continues the presentation of the basic grammar of LATN 111 and emphasizes early reading. Prerequisites: one unit of high school Latin, LATN 111, or departmental consent.
- **LATN 223. Intermediate Latin (3). General education introductory course.** General review of grammar with selected readings of prose and poetry. Prerequisite: LATN 112, two years of high school Latin or departmental consent.
- **LATN 224. Intermediate Latin (3). General education further study course.** Selected readings of prose and poetry. May be repeated for credit when the readings vary. Prerequisite: LATN 223 or departmental consent.

### Upper-Division Course

- **LATN 325. Classical Mythology (3).** Cross-listed as GREK 325 and HIST 352. 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 the course also includes Greek art. All readings in English; requires no previous knowledge of Latin or Greek.
- **LATN 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

**LATN 224 or departmental consent is the prerequisite for all upper-division courses.**

- **LATN 541. Roman Lyric Poetry (3).** The lyric poems of Catullus and Horace emphasizing imagery, symbolism, structure, diction, and meter.
- **LATN 542. Virgil’s Aeneid (3).** Selected books of the Aeneid in the original and the rest in translation. Studies imagery, symbolism, structure, meter, and diction. Considers the place of the Aeneid in Augustan Rome and in the epic tradition.
- **LATN 543. Roman Drama (3).** A study of Roman comedy and tragedy, their Greek background, and their influence on European literature. Includes selected plays of Plautus, Terence, and Seneca, some in the original and some in translation.
- **LATN 546. Advanced Latin (3).** Directed reading of Latin. Reading may be combined with Latin prose composition at the option of the students. Repeatable for credit when content varies.
- **LATN 651. Roman Historians (3).** A study of the development of Roman historiography. Readings from Sallust, Caesar, Livy, and Tacitus.
- **LATN 652. Cicero (3).** The orations, letters, and essays of Cicero. Concentrates on Cicero as the master of Latin prose and as one of the most important political figures of the fall of the Roman Republic.
- **LATN 653. Lucretius and Epicureanism (3).** Reading of Lucretius’ De Rerum Natura and study of Epicureanism, the atomic theory, and Democritean materialism. Gives consideration to the place of Lucretius in Latin poetry.

### Modern and Classical Languages and Literatures (MCLL)

#### Upper-Division Courses

- **MCLL 351. Linguistics and Foreign Languages (3).** Cross-listed as ANTH 351 and LING 351. Introduces general linguistic principles as they apply specifically to the study, acquisition, and analysis of foreign languages offered as major specializations at WSU (French, German, Latin, and Spanish). Introduces acoustic phonetics (narrow transcriptions of foreign languages) and principles of phonology; morphemics and principles of morphology; and syntax and semantics. Prerequisite: LING 151 or any third-semester foreign-language course.
- **MCLL 411F Pre-Student Teaching: PreK–6 (1).** This field experience allows foreign language students to spend an extended length of time in a PreK–6 classroom working with a cooperating teacher. Students evaluate their own instruction and plan for improvement. Graded S/U only. Prerequisites: acceptance into teacher education and successful completion of Core I and Core II Part I through the College of Education.

- **MCLL 413F Pre-Student Teaching: 6–12 (1).** This field experience allows foreign language students to spend an extended length of time in a 6–12-grade classroom working with a cooperating teacher. Students evaluate their own instruction and plan for improvement. Graded S/U only. Prerequisites: acceptance into teacher education and successful completion of Core I and Core II Part I through the College of Education.

- **MCLL 454F Instructional Strategies, Assessment, and Management: PreK–12 Foreign Languages (3).** Examines methods of instruction in relation to foreign languages and teaching in a variety of settings. Covers progress assessment, classroom management, and explores instructional approaches for guiding foreign language students. Prerequisites: acceptance into teacher education and successful completion of Core I and Core II Part I through the College of Education.

- **MCLL 455F Student Teaching Seminar in Foreign Languages (1).** Examines and discusses experiences emerging from student teaching, including planning school programs and assuming the responsibilities of a teacher. Prerequisites: acceptance into teacher education, successful completion of Core I and Core II Part I through the College of Education, 2.500 GPA in the major. Corequisite: student teaching seminar.

- **MCLL 466A. Student Teaching: PreK–6 Foreign Languages (6).** Prerequisites: acceptance into teacher education, successful completion of Core I and Core II Part I through the College of Education, 2.500 GPA in the major. Corequisite: student teaching seminar.

- **MCLL 466B. Student Teaching: 6–12 Foreign Languages (6).** Prerequisites: acceptance into teacher education, successful completion of Core I and Core II Part I through the College of Education, 2.500 GPA in the major. Corequisite: student teaching seminar.

### Courses for Graduate/Undergraduate Credit

- **MCLL 651. Language and Culture (3).** Cross-listed as ANTH 651 and LING 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.

### 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- or 200-level courses. These students are advised to consult with a Russian professor before enrolling in Russian courses.

Lower-Division Courses

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 (5). 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. Intermediate Russian Readings (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. Russian Phonology (2). Cross-listed as LING 505B. Corrective pronunciation and auditory perception for non-native speakers of Russian. Includes articulatory phonetics, phonemics, and morphophonemics, as well as the study and production of intonation contours (intonationvy konstruktsii). Prerequisite: any 200-level course or instructor’s consent.

RUSS 515. 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 (3). General education issues and perspectives course. Survey course in representative Russian literature (prose) of the 19th century; of the Soviet (socialist realism) or post-Soviet period, or of a particular author. The survey of 19th century Russian literature typically includes major prose works of Pushkin, Lermontov, Gogol’, Goncharov, Turgenev, minor prose works of Tolstoy and Dostoevsky, and the more popular plays of Chekhov. Emphasis on Russian and European history, historiography, and intellectual movements, as well as fundamental concepts of general literary analysis and criticism. No knowledge of Russian is required, although some is desirable. Prerequisite: departmental consent.

Modern and Classical Languages and Literatures: Spanish (SPAN) Specialization. A specialization in Spanish consists of a minimum of 33 credit 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 career. 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 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 3.000 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); and
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 11 hours beyond the SPAN 210 level and must include SPAN 220, 223, 225, and 3 hours at the 500-level or above.

Native Speakers. Native speakers are those who have completed a substantial amount of their education in a Spanish-speaking country. Native speakers of Spanish are normally not permitted to receive credit for 100- and 200-level courses. To complete a specialization the following are required: (1) SPAN 300; (2) one of the following courses: MCLL 351, SPAN 526, or SPAN 635; and (3) 12 hours of upper-division work in Spanish. These students are advised to consult with a Spanish professor before enrolling in Spanish courses.

High School Spanish. Students who have completed more than two units of high school Spanish should consult with an adviser in the Spanish department before enrolling in Spanish courses.

Lower-Division Courses

SPAN 111. Elementary Spanish I (5). Develops the four fundamental skills in language learning (listening, speaking, reading, and writing) in an appropriate cultural context. Requires daily classroom and language laboratory work.

SPAN 112. Elementary Spanish II (5). Further develops the four fundamental skills in language learning (listening, speaking, reading, and writing) in an appropriate cultural context. Requires daily classroom and language laboratory work. Prerequisite: one unit of high school Spanish, SPAN 111, or departmental consent.

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 220. Intermediate Spanish Grammar and Composition (5). 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 satisfies 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. Corequisite: SPAN 220.

Upper-Division Courses

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 300. Intermediate Spanish Readings (3). General education further study course. Intensive reading and analysis of Spanish literary works of all periods. Course satisfies the LAS literature requirement. Prerequisite: SPAN 223 or departmental consent.

SPAN 325. Spanish Conversation II (2). 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 Cr/NCr only. Prerequisite: SPAN 220 or departmental consent.

Courses for Graduate/Undergraduate Credit

SPAN 505. Spanish Phonetics (2). Cross-listed as LING 505C. Includes articulatory phonetics, phonemics, 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 reports, (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 536. 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 and may count toward a Spanish major or minor if readings and papers are done in Spanish and prerequisite of SPAN 300 is met. Repeatable for credit.

SPAN 552. Business Spanish (3). Prerequisite: SPAN 300 or departmental consent.

SPAN 557. Literary and Technical Translating in Spanish (3). Translating of literary and technical material, including legal and business documents from Spanish to English and English to Spanish. Prerequisite: SPAN 526 or departmental consent.

SPAN 621. Survey of Latin-American Literature (3). Main currents of Latin American literature, 1800–present. Prerequisite: SPAN 300 or departmental consent.

SPAN 622. Special Studies in Spanish (1–4). Topic for study chosen with aid of instructor. Repeatable for credit. Prerequisite: instructor's consent.


SPAN 625. Contemporary Latin-American Novel (3). Prerequisite: 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. Pre- or corequisite: 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. Pre- or corequisite: 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. Provides a contrastive examination of the phonology, morphology, and syntax of the major Romance languages (French, Spanish, Italian, Portuguese, Catalan, and Romanian). Introduces students to the sound and writing system and basic grammar of Latin and contrasts the phonological and grammatical systems of the contemporary Romance languages (French and Spanish in particular) with those of Latin. It compares specific features of the modern Romance languages synchronically (i.e., apart from Latin) as well. Students are advised to have a solid grounding in at least one Romance language (preferably French or Spanish) and a familiarity with at least one other (French, Spanish, Italian, or Portuguese). Prerequisite: departmental or instructor's consent.

SPAN 640. Mexico: Its People and Culture (3). Study of the cultural development of Mexico, exploring the legacy of ancient cultures and the Spanish encounter in areas such as literature, the arts, music, and film industry. Prerequisite: SPAN 300 or departmental consent.

SPAN 650. South America: Its People and Cultures (3). Study of the cultural development of South America, exploring the legacy of Indian cultures and the Spanish encounter in areas such as literature, the arts, music, and the film industry. Prerequisite: SPAN 300 or departmental consent.

SPAN 726. Spanish Grammar and Stylistics (3). Prerequisite: SPAN 526. Repeatable for credit.

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

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 adviser 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 adviser’s consent.

Minor. A minor consists of 15 hours of philosophy courses, selected in consultation with a departmental adviser, that orient students to the philosophical 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 characteristics of the philosophic endeavor. 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 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 they 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 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 305. Analytic Philosophy (3). General education further study course. Studies the rise of analytical philosophy in the 20th century, emphasizing the themes unifying 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. Studies philosophical thought in the 18th century with selections from philosophers such as Berkeley, Hume, Reid, Adams, Smith, Butler, Hutcheson, 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. Studies 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 321. The History and Philosophy of the Physical Sciences in the 20th Century (3). The 20th century saw radical changes in our theories about the nature of the physical world. This course uses a brief initial survey of the so-called “classical” physics of the late 19th century as a springboard for exploring the rise and development of our current views about space, time, matter, energy, gravitation, cosmology, and more. The emphasis is not on mastery of technical details but rather on understanding important results in the physical sciences from a humanistic perspective, including their cultural, philosophical and technological implications.

>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, Telesio, Erasmus, More, Hobbes, Bacon, Machiavelli, Descartes, Spinoza, Leibniz, Malebranche, and Locke.

PHIL 325. Formal Logic (3). 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 Milesian and Eleatic traditions, Pythagoras, the Atomists, the Pluralists, the Sophists, Socrates, Plato, and Aristotle.

>PHIL 338. Philosophy of Feminism (3). General education further study course. Cross-listed as WCOMS 338. Explores philosophical issues raised by the feminist movement emphasizing conceptual and ethical questions.

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. 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 350. Ancient Chinese Philosophy (3). A survey of Chinese philosophy during the pre-Han period, roughly 500-200 B.C.E. Includes major figures Confucius, Mencius, Mo-Tzu, Hsun-Tzu, Chuang-Tzu, Lao-Tzu, and Han-Fei-Tzu. Includes the major positions of Confucianism, Mohism, Legalism, Taoism, and Dialecticalism.

>PHIL 354. Ethics and Computers (3). General education issues and perspectives 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: one course in philosophy.

PHIL 365. Survey of Asian Philosophy (3). A survey of philosophical systems of Asia, including Confucianism, Taoism, Buddhism, and Hinduism. Key points of similarity and contrast among these systems and between these systems and those dominant in Western societies, regarding the nature of the self and reality, and the sources of moral, political, and social value are considered.

>PHIL 385. Engineering Ethics (3). General education issues and 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 HNRS 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 452. Space and Time (3). An exploration of the history of ideas about the nature of space and time from the ancient Greeks to general relativity and beyond. Major topics include: Aristotle’s theories of space and time; Newtonian absolute space and time; the Leibniz-Clarke correspondence; Kant’s theory of space and time; non-Euclidean geometries and their physical and philosophical implications; Poincaré’s conventionalism; the relativity of simultaneity; general relativity and curved spacetime; the possibility of time travel. Prerequisite: one course in philosophy.

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 recent developments in the philosophy of the mind. Possible topics include the nature of consciousness, mental representation, the mind-body problem, mental causation, psychological explanation, and the computational theory of mind.

Courses for Graduate/Undergraduate Credit

PHIL 501. Philosophy of Language (3). 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? Prerequisite: one 300-level or higher course in philosophy.

PHIL 510. Philosophy of History (3). A philosophical examination of the meta-level issues that arise in the discipline and practice of history. Issues investigated include: What is history? What is the proper form of explanation in history? How are causal claims in history to be understood? Is it possible to achieve objectivity in historical explanations? What criteria should be employed in evaluating historical explanations? What are the moral obligations which should guide historical research and presentation? Prerequisite: instructor’s consent.

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 525. Evidential Reasoning (3). Explores philosophical issues related to reasoning about evidence. Topics may include: induction, confirmation, falsification, the under-determination of theories by evidence, theories of probability, and scientific method. Examines some case studies of reasoning about evidence in, for example, poker, medicine, risk analysis, forensic sciences, and the law.

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 confine 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 relation of social sciences with natural sciences and philosophy; methodological problems peculiar to social sciences, the nature of sound explanation concepts, and constructs and the roles of mathematics and formal theories in social sciences.

PHIL 565. Topics in Asian Philosophy (3). An in-depth examination of selected topics in Asian philosophy. The topics covered in any particular semester vary. Representative topics include movements such as Confucianism, Taoism, or Buddhism. Prerequisite: one philosophy course.

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 a fundamental science—it is the study of matter, energy and their interactions. Physics is the basis for all sciences, applied science and engineering. Physicists study everything from elementary particles at the smallest scale to galaxies and the cosmos at the grandest scale, and solid state physics such as semiconductors and 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, 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, computing, 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, 551, 621, 631, 641, and 651; MATH 555 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, three semesters chosen from PHYS 516, 517, and 616; 8 additional upper-division hours in physics (excluding 501 and 502); and 5 additional hours in chemistry are required.

Chemical Physics Option. A student majoring in physics may select a chemical physics option. This option requires four courses in chemistry, beyond the 211–212 sequence, in place of upper-division physics electives. With department approval, the chemistry courses could substitute for required courses covering similar topics.

Engineering Physics Option. A student majoring in physics may select an engineering physics option. This option requires four courses approved by the physics department from a given engineering department in place of upper-division physics electives. With department approval, the engineering courses could substitute for required courses covering similar topics.

Other Options. Other programs are available which provide the student an opportunity to combine the study of physics with an interest in another area. On an individual basis, students have included interests in mathematics, geology, computer science, biological sciences, business, and education.

Minor. A minor in physics consists of PHYS 213–214 or 313–314–315–316 and at least 6 additional hours of physics courses numbered above 500 (excluding 501 and 502).

Lower-Division Courses

> PHYS 111. Introductory Physics (4). 3R; 3L. General education introductory course. A general physics course for liberal arts students and those who have not had physics in high school. Includes mechanics, heat, electricity and magnetism, wave phenomena, and modern physics. Not open to students who can meet prerequisites for PHYS 313. Prerequisite: two years of high school algebra or one each of algebra and geometry or equivalent.

> PHYS 131. Physics for the Health Sciences (3). General education introductory course. A background in basic physics for students in health-related professions. The choice of topics, the emphasis on
problems, and the detailed applications are directed toward the special uses of physics in the health sciences. Prerequisites: two years of high school algebra or one year each of algebra and geometry or equivalent.

PHYS 151. Preparatory Physics (2). A general physics course for those who have not had adequate preparation for PHYS 313. Emphasizes problem solving using selected areas of physics, including vectors, one-dimensional motion, rotational motion, equilibrium, elasticity, hydrostatics, thermal effects, lenses and mirrors. Prerequisites: MATH 112.

>PHYS 195. Introduction to Modern Astronomy (3). General education introductory course. A survey of astronomy for the student with little or no background in science or math. The nature and evolution of the universe and objects in it are considered from the perspective of the question: Why do things happen the way they do? May include comparison of the planets, stars and black holes, galaxies and quasars, and the expansion of the universe.

PHYS 196. Laboratory in Modern Astronomy (1). 3L. The application of the techniques and analysis of the data of modern astronomy. For the student with some background in the physical sciences. When PHYS 196 is completed, 195 and 196 count as a laboratory science. Requires field trips. Prerequisites: two semesters of high school algebra or the equivalent, or instructor's consent, and PHYS 195, which may be taken concurrently.

>PHYS 213. General College Physics I (5). 4R; 3L. General 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 (5). 4R; 3L. General education further study course. A continuation of PHYS 213. Electricity, light, and modern physics. Prerequisite: PHYS 213 or 313.

Upper-Division Courses

>PHYS 303. Physics for Engineers I (3). General education introductory course. The first semester of a three-semester, calculus-based physics sequence. Topics include motion, forces, energy, rotation, and gravitation. Credit is only given for one of PHYS 213, 303, or 313. Knowledge of high school physics is assumed. Corequisite: MATH 243.

>PHYS 304. Physics for Engineers II (3). General education further study course. The second semester of a three-semester, calculus-based physics sequence. Topics include oscillations, waves, electricity, magnetism, basic circuits, and Maxwell's equations. Credit is only given for one of PHYS 214, 304, or 314. Prerequisites: MATH 243 with a grade of C or better, and either PHYS 213 or 313; or PHYS 214 with a grade of B or better.

>PHYS 313. Physics for Scientists I (4). General education introductory course. The first semester of a calculus-based physics sequence. Topics include motion, forces, energy, fluids, oscillations, waves, and thermodynamics. Credit is only given for one of PHYS 213, 303 or 313. Passing a placement test is required to get into this course. Natural sciences majors are required to take the lab, PHYS 315, that accompanies this course. Corequisite: MATH 243 with a grade of C or better.

>PHYS 314. Physics for Scientists II (4). General education further study course. The second semester of a calculus-based physics sequence. Topics include electricity, magnetism, circuits, EM waves, light, and selections from modern physics. Credit is only given for one of PHYS 314, 304, or 314. Natural sciences majors are required to take the lab, PHYS 316, that accompanies this course. Prerequisites: MATH 243 with a grade of C or better and PHYS 313.


>PHYS 316. University Physics Lab II (1). 3L. General education further study course. Lab experiments in electricity, magnetism, and optics. Required for natural sciences majors taking PHYS 304 or 314. Corequisite: PHYS 304 or 314.

>PHYS 395. Solar System Astronomy (3). General 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 405. Physics for Engineers III (3). The third semester of a three-semester, calculus-based physics sequence. Topics include thermodynamics, optics, relativity, and modern properties of light and selected topics in modern physics. PHYS 304 and 405 may be taken in the same semester. Corequisites: MATH 344 and PHYS 304.

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/NCr 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: instructor's consent.

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; instructor's consent.

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 projects requiring individual study. Repeatable up to a maximum of 8 credit hours. Corequisite: PHYS 551.

PHYS 517. Electronics Laboratory (2). 1R; 3L. Experiments in electronics that treat some of the applications of electronics to scientific physics research. Experiments cover the uses of transistors, op-amps, integrated 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 modifications of classical physics for their explanation. Prerequisite: PHYS 214, 303 or 314 or departmental consent. Corequisite: MATH 344.

PHYS 555. Modern Optics (3). Geometrical and physical optics, coherence theory, and Fourier optics. Additional topics may include radiation, scattering, optical properties of solids, and optical data processing. Prerequisites: PHYS 214, 303 or 314 and MATH 344.

PHYS 595. Astrophysics (3). Covers the formation, life, and death of stars. Topics include: HR-diagrams, atomic and molecular spectra, radiative and convective transfer, the structure and spectra of stellar atmospheres, and stellar evolution. Prerequisite: PHYS 551.

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 and C++ languages as used in physics. Corequisite: PHYS 555.

PHYS 621. Analytical Mechanics (3). Motion of a particle or system of particles in one or several dimensions, central forces, rotating coordinate systems, the harmonic oscillator and the Lagrangian and Hamiltonian formulation of mechanics. Prerequisites: PHYS 214, 303 or 314, and MATH 344 with grades of C or better.

PHYS 631. Electricity and Magnetism (3). Electric and magnetic field theory, direct and alternating currents and Maxwell's electromagnetic wave theory. Prerequisites: PHYS 214, 303 or 314, and MATH 344 with grades of C or better.

PHYS 641. Thermophysics (3). The laws of thermodynamics, distribution functions, Boltzmann equation, transport phenomena, fluctuations, and an introduction to statistical mechanics. Prerequisites: PHYS 214, 303 or 314, and MATH 344.

PHYS 651. Quantum Mechanics I (3). Introduction to quantum mechanics, the Schrödinger equation, elementary perturbation theory, and the hydrogen atom. Prerequisite: PHYS 551.
PHYS 652. Quantum Mechanics II (3). A continuation of PHYS 651 and covers time dependent perturbation theory, WKB, scattering, Bell’s theorem, quantum reality, applications of quantum mechanics, and nanotechnology. Prerequisite: PHYS 651.

PHYS 661. Introduction to Atomic Physics (3). Quantum mechanics is the basis of all our physical understanding of atomic and molecular spectra. This course uses quantum mechanics to understand the nature and formation of the spectra of one, two and many-electron atoms. A discussion of atomic collisions is included. Corequisite: PHYS 651.

PHYS 675. Nuclear and Particle Physics (3). Theories of nuclear and particle physics, including experimental techniques and important features of current data. Summary of mesons, baryons, and leptons, and their electromagnetic, strong and weak nuclear force interactions. Phenomenological descriptions of nuclear and high-energy scattering and particle production leading to the quark theory of matter and other new exotic particles. 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.

PHYS 730. Principles of Computer Modeling (2) IR, 2L. Essential elements, principles, and strategies of forward and inverse numerical computer modeling. Formulation of a qualitative problem (parametrization), model design, implementation, and interpretation of model results. Working knowledge of computational techniques with examples in physics, geology, chemistry, and environmental sciences. Prerequisites: PHYS 616 or EEPS 701, plus knowledge of a programming language or numerical or symbolic mathematics package, or instructor’s consent.

PHYS 761. Environmental Physics (3). Covers the application of physics to the environment, including the production and use of energy, the transport of pollutants, and the study of noise. Topics include basic thermodynamics with applications to fossil fuels, hydroelectric, wind, geothermal, and solar energies, plus effects on global warming, pollution, and climate. Prerequisites: PHYS 303, or 313–314 and MATH 242, or EEPS 721, or instructor’s consent.

PHYS 795. Earth and Space Physics (3). Cross-listed as GEOL 795. An introduction to the geosciences and astrophysics of the solar system. Topics include the surface, interior and atmospheres of the planets with a comparative planetology approach, and the sun-planet system including solar physics and the effect of the sun on the earth’s environment and geologic history. Prerequisites: PHYS 303, or 313–314, and MATH 242, or EEPS 721, or instructor’s consent.

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

Political Science (POLS)
Political science is the study of governments, public policies, and political behavior. Political science uses both humanistic perspectives and scientific skills to examine the United States and all countries and regions of the world.

Students enrolled in political science courses explore American politics, international affairs, comparative politics, and urban and minority affairs. Students address critical issues such as public policy globalization, terrorism, the environment, civil rights, political development, and foreign policy. Political science examines theories concerning the ideal government and how power and resources are allocated in society.

As political science majors, students hone the writing, communication, analytical and computer skills that are critical to a liberal arts education. This kind of education prepares students to think critically and independently, with tolerance for others and concern for current affairs. Today, students can reasonably expect to change jobs more than once and even to have more than one career. An undergraduate education in the liberal arts and sciences is excellent preparation for the flexibility in employment that students are likely to encounter.

Majoring in political science can prepare a student for many different careers in private for-profit and nonprofit organizations, as well as public sector organizations. A political science major can qualify students for graduate studies and an eventual career in business, law, consulting, state, local and federal government, journalism and communication, international organization, finance, polling and campaign management, lobbying, community service, nongovernmental organizations, and pre-college and college teaching.

Political science education also provides valuable preparation for participating in community organizations, electoral politics, movements on behalf of specific policies, and for seeking elective or administrative positions in government. While many of these are voluntary activities, participation in them develops skills and creates opportunities for career success.

Departmental honors are available: see the department chairperson.

Major. A major consists of POLS 121, 220, 226, 232, 365 and 15 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 6 hours credit toward the political science major from the following courses: POLS 153, 353, 390, 398, 481, 490.
Exception for Washington/Topeka Interns—Students who earn 6 hours credit in POLS 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 POLS 398, which may also apply to the 33 hours of political science required of majors.

Minor. A minor consists of POLS 121 and 12 additional hours, at least 6 of which must be in upper-division courses.

Departmental Honors Track. The department offers the option for majors to graduate with honors in political science if they meet the following requirements: obtain a 3.500 average or greater for the four core courses (POLS 121, 220, 226, 232); take an additional course beyond the introductory one in each of the four subfields (American politics, international politics, comparative politics, political theory); take an additional 6 hours of political science courses beyond the 33 hours required for a major; maintain a 3.500 GPA for all political science courses; and receive an A for the Senior Seminar capstone course. Students who would like to be admitted to the honors track should contact the department chair.

Lower-Division Courses

POLS 110. Russian Studies (3). Cross-listed as 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.

POLS 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.

POLS 150. Political Science Workshop (1–3). Prerequisite: instructor’s consent.


POLS 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 POLS 220 or 336, but not both, may be accepted toward a major in history.

>POLS 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.

>POLS 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

>POLS 310. Latin American Politics (3). General education further study course. An overview of domestic political processes in Latin American countries. A synopsis of historical developments in the region up to and including the transitions from authoritarianism to democracy that took place in the mid 1980s. Presents a regional perspective on key current issues related to governance and democratization such as institutional frameworks (constitutional aspects, elections, political parties and the State), the role of the elites and the military, the impact of socio-economic factors and the importance of political culture. Prerequisite: (for general education credit) a general education introductory course in Political Science (POLS 121, 220, or 226).

>POLS 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.

>POLS 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.

>POLS 317. Urban Politics (3). 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.

>POLS 318. Political Parties (3). General education further study course. Examines the role of political parties in the American political decision-making process at the national, state, and local levels.

>POLS 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.

>POLS 320. Developing World (3). General education further study course. Examines the politics and processes of development and change in developing nations in Latin America, Africa, Asia and the Middle East and the implications for developed nations, including the United States. Attempts to provide students with the theoretical tools and concepts to evaluate politics in these societies. Looks at the theories of political development and modernization, the political institutions, the relationships between the state and society, and the social forces that influence politics and economics in these states. Examines the regime types that exist in the different regions, emphasizing the recent transitions from authoritarianism to democracy. Deals with current challenges for developing nations in the economic and social realm.

>POLS 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.

>POLS 325. Women in the Political System (3). Cross-listed as WOMS 325. Examines the political process of policy making using policies of current interest concerning women. Examines the role of societal gender role expectations with existing and proposed public policies that pertain to women's lives. Prerequisite: 6 hours of social sciences or instructor's consent.

>POLS 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; political aspects of the educational system, the media, religious institutions, and ethnicity.

>POLS 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 POLS 220 or 336, but not both, may be accepted toward a major in history.

>POLS 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.

>POLS 340. Global Challenges (3). Seminar-style course in which students actively discuss the scope and potential solutions to many global problems. Topics include: proliferation of weapons of mass destruction, prevention of terrorism, protection of human rights, promotion of development, protection of the environment, alleviation of poverty, and promotion of free trade/globalization.

>POLS 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.


>POLS 358. American Political Thought (3). General education further study course. Considers selected topics in the development of political ideas in the United States.

>POLS 360. Human Rights (3). Considers the concept of human rights and the Universal Declaration of Human Rights. Also considered are Western and non-Western conceptions of human rights and the problem of cultural relativism. Examples of topics discussed are women in a patriarchal world, the treatment of minorities, genocide, and international legal instruments to protect human rights. Videos on different topics will be viewed, including on the leaders of the countries where violations of human rights have been openly perpetrated.

>POLS 365. Political Inquiry (3). Introduces students to political research methods and tools. It is fundamentally about how to conduct research in political science. The course explores the questions political scientists seek to answer and how they go about answering those questions. Relevant research from the main subfields of political science will be considered. Course provides a basic introduction to qualitative and quantitative methods of research.

>POLS 370. European Politics (3). An in-depth study of the politics of Western and Eastern European countries. Europe’s special relationship with democracy and democratization will be examined. The European Union and the goals of European integration receive special attention as well as the impact of globalization on the European democracies.

>POLS 375. Latin American International Politics (3). Reviews historical and current issues relating to the international relations of Latin America and the Caribbean. It examines the relations among Latin American countries, as well as the relations of Latin American states with other regions of the world, in particular the United States, the European Union and Canada. It also takes a look at the position of Latin American and Caribbean states in the major sub-regional, regional and hemispheric organizations. Discusses current political issues such as democratization, human rights, security, transnational crime and migration, as well as those related to economic issues (trade agreements, international investment and globalization).

>POLS 380. Campaigns and Elections (3). General education further study course. Examines selected contests at all levels, national, state, and local, with an emphasis on the practical aspects of competitive campaigns. Offered during the fall semester of election years, the course features candidates, campaign strategists, pollsters, fund raisers, and political
advertising and media experts. Students have the choice of working on a local campaign and writing a report on it, or researching and writing on a competitive gubernatorial or U.S. Senate race.

POLS 385. Global Democracy (3). In the past 30 years a large number of countries have made the transition from authoritarian to some form of democratic rule. Whereas several countries began their democratization process several years ago, some are just starting to do so. The challenges that new democracies face have raised many theoretical and practical questions for Political Science. This course addresses some of those questions. It provides an overview of the different regime types that can exist and examines the concept of democracy itself. It also explores topics such as the preconditions for democracy, the different waves of democratization that have occurred, and the modes of transition from authoritarianism to democracy. A major part of the course is devoted to examining the problems associated with democratic consolidation. It also addresses the possible distortions of democracy, the conditions that can lead to democratic breakdowns, ways of measuring and assessing democracy, as well as policies for promoting democracy in countries around the world.

> POLS 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.

> POLS 533. U.S. Foreign Policy (3). General education further study course. Explores the dynamic decision-making process in the development of U.S. foreign policy. 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.

> POLS 534. Comparative Foreign Policy (3). General education further study course. Examines the foreign policies and the decision-making structures and processes of various countries.

> POLS 547. Contemporary Political Theory (3). 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 modern 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, Frederich Nietzsche, and John Dewey. Covers the importance of these new philosophies upon political structures and issues.

> POLS 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.

> POLS 552. Civil Liberties (3). General education further study course. An analysis of the role of the appellate courts—especially of the U.S. Supreme Court—in the American political system. Emphasizes the guarantees of the Bill of Rights and the 14th Amendment.


Courses for Graduate/Undergraduate Credit

> POLS 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.

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> POLS 552. Civil Liberties (3). General education further study course. An analysis of the role of the appellate courts—especially of the U.S. Supreme Court—in the American political system. Emphasizes the guarantees of the Bill of Rights and the 14th Amendment.


Analytical approach rather than descriptive. Repeatable for credit.

> POLS 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. Prerequisites: senior status, 18 hours of POLS courses.

> POLS 700. Advanced Directed Readings (3). Repeatable for credit. Prerequisite: departmental consent.

POLS 710. 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.

> POLS 725. 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, unionization, and collective bargaining problems found in the public sector.

> POLS 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 take 31 credit hours including a general survey course (PSY 111); two research methods core courses (PSY 301 and 311); and 15 hours from a list of core content courses (PSY 320, 321, 322, 323, 324, 325, 326, and 327). An additional 6 hours of electives from courses numbered 300 or above (excluding PSY 481) must be taken to complete the required total of 31 hours.

The program is designed to prepare students for postgraduate work in psychology but is flexible enough to accommodate the interests of students who do not intend to pursue graduate study in psychology. Such students may be career oriented (e.g., social work, management training) or simply have an interest in learning more about why we behave as we do.

Major. The major for the Bachelor of Arts (BA) degree consists of a minimum of 31 hours in psychology, at least 9 of which are earned at Wichita State. PSY 111 is prerequisite for all higher number psychology courses.
Minor. The minor consists of a minimum of 15 hours selected in consultation with the student's major adviser.

Certification by the state of Kansas as a substance abuse counselor is awarded through the Kansas Association of Addiction Professionals to students who have obtained a minimum of an Associate's degree with 29 hours of specific substance abuse coursework while maintaining a minimum GPA of 2.500 in the program. Contact the psychology department for current course offerings in this area.

Lower-Division Courses

PSY 108. Stress and Stress Management (3). 2R; 2L. Introduces the theories of stress and surveys major stress management techniques. Discussion emphasizes the conceptualization of stress and its social impact; complemented by stress reduction techniques. Does not satisfy the university's social sciences requirement nor does it count for a psychology major.

>PSY 111. General Psychology (3). General education introductory course. Introduces the general principles and areas of psychology. Includes learning, perceiving, thinking, behavioral development, intelligence, and normal psychopathology. Selection of topics emphasize the strengths of the elderly and predictors to the study of prosocial and aggressive behavior. Prerequisite: PSY 111.


PSY 168. Special Populations and Multicultural Issues in Substance Abuse (3). Covers how cultural, ethnic, racial, and other special population differences affect the use and abuse of addictive substances. Also includes discussion of culturally appropriate counseling techniques. Does not satisfy WSU's social sciences requirement, nor does it count toward a psychology major.

Upper-Division Courses

PSY 301. Psychological Statistics (3). Introduces basic quantitative techniques for the description and measurement of behavior, as well as tests for making decisions regarding the compatibility of data to scientific hypotheses. Covers probability models, t, chi square and F. Prerequisites: PSY 111.

PSY 311. Research Methods in Psychology (4). 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). Prerequisite: PSY 301.

>PSY 320. Biological Psychology (3). General education further study course. A review of the biological foundations of cognition and behavior. Includes evolutionary influences on brain and behavior, the role of hormones in cognition and behavior, neurochemical correlates of cognition and behavior, and recent advances in cognitive neuroscience. Prerequisite: PSY 111.

>PSY 321. Psychology of Learning (3). General education further study course. Explores basic principles of how organisms learn and highlights key concepts such as reinforcement and punishment, generalization of behavior across settings and extinction of specific behaviors. Important research, theoretical issues and current trends are discussed. Prerequisite: PSY 301.

>PSY 322. Cognitive Psychology (3). General education further study course. Presents a coherent picture of human memory and cognition within the framework of the information-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 323. Social Psychology (3). General education further study course. The study of perception of self, others and groups. Includes attitude formation and change; group processes like conformity, compliance and conflict; and interpersonal processes such as attraction and the formation of close relationships. Also includes the application of social psychological principles to the study of prosocial and aggressive behavior. Prerequisite: PSY 111.

>PSY 324. Psychology of Personality (3). General education further study course. An examination of psychoanalytic, behavioral, trait, and other contemporary theories of human personality. Gives consideration to major factors influencing personality, results of research in the area, ways of assessing personality, and some of the methods of treating personality disorders. Presents and discusses case studies. Prerequisite: PSY 111.

>PSY 325. 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 development. Selected topics emphasized and elaborated by demonstrations and class projects. Prerequisite: PSY 111.

PSY 328. 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 301.

PSY 403. Introduction to Individual Counseling (3). Surveys contemporary theories and techniques of individual counseling. Compares various theoretical approaches and includes practical applications of each theory studied. Introduces professional and ethical issues involved in individual counseling. Emphasizes the therapeutic relationship, effective listening, issues surrounding defense mechanisms, and crisis intervention. Prerequisite: PSY 111.

>PSY 404. Psychology of Aging (3). General education further study course. Cross-listed as GERO 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. Special emphasis on the strengths of the elderly and prevention of psychological problems of the elderly. Prerequisite: PSY 111.

PSY 405. 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. 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. 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 psychology which focuses on interdisciplinary approaches to improving lives in community settings. Presents contemporary models of community psychology, including the ecological and social action perspectives. Includes social support, self-help, social policy, prevention, community development and, program development and evaluation. Prerequisite: PSY 111.

>PSY 407. Industrial Psychology (3). General education further study course. Introduces the many roles of scientific psychology 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 408. 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 409. Psychology of Perception (3). General education further study course. An exploration of current research and theory in perception and sensation. Emphasizes how organisms come to perceive and understand their environments with regard to perception of space, form, objects and events. Prerequisite: PSY 111.

>PSY 410. Alcohol Use and Abuse (3). General education further 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 412. Psychology of Motivation (3). General education further study course. Examines the psychological and biological forces leading to goal-directed acts to understand the complexity of influences upon behavior. Motivational topics include reward and punishment, stress, aggression, achievement, and the role of the brain structures in influencing organized behavior. Prerequisite: PSY 111.

>PSY 413. Leadership in Self and Society (3). General education issues and perspectives course. Cross-listed with HMC 308. Examines 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 public health strategies for change in a project, community setting, or organization.

>PSY 414. Child Psychology (3). General education further study course. Covers psychological development from conception through infancy and childhood. Includes the development 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 environmental concerns, problems in the schools, substance abuse, nuclear proliferation, racism/sexism, mental illness, child abuse, juvenile delinquency, aggression, behavioral control, aging, technology, etc. Prerequisite: PSY 111.

PSY 428. Field Work in Psychology (3). Special projects and practicums 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/NCr only. Prerequisites: PSY 111 and departmental consent.

PSY 481. Cooperative 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/NCr only.

Courses for Graduate/Undergraduate Credit

PSY 502. Comparative Psychology (3). Develops a unified theoretical perspective about the origins of behavior of all animals. Focuses on the evolution and development of behavior. Field trips supplement lectures. Prerequisite: one course from Group 1.

PSY 506. Psychology of Helping Relationships (3). Cross-listed as NURS 567 and SOC 566. Introduces students to a psychological perspective on helping relationships that will be useful in both practice and research. Topics covered include the definition of relationships, and identification of the ways in which the roles of helper and help seeker can be structured to maximize effectiveness: e.g., power, distance, similarity, and reciprocity. Relationships of interest include: counseling and psychotherapy, nursing and doctoring, family caregiving, mentoring, self-help, mutual aid, and volunteering. The emerging topic of “relationship-centered care models” in the education of health care professionals will be discussed. Prerequisite: 6 hours in psychology including PSY 111 or instructor’s consent.

PSY 508. Psychology Tutorial (3). Selected topics in psychology. Repeatable for a maximum of 6 hours credit. Instructor’s consent may be required. Check Schedule of Courses. Prerequisite: 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 relationships, hospitalization, and prevention. May include a self-study of lifestyle and behavior in relation to health and illness. Prerequisite: PSY 111.

>PSY 516. Drugs and Human Behavior (3). General education further study course. A survey of the actions and effects of legal and illegal psychoactive drugs and of the use of prescription 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 534. Psychology of Women (3). General education issues and perspectives course. Cross-listed as WOMS 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 effects 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 such topics as addiction, cancer and other illnesses, eating disorders, bereavement, mental illness, and parenting.

PSY 568. Computer Applications to the Behavioral Sciences (3.2L). Introduces computer applications to the behavioral sciences including 1) techniques of analyzing experimental data, 2) statistical applications, 3) interactive computing, 4) “canned” statistical programs, 5) word processing, and 6) other current computer applications. Prerequisites: 9 hours in the social sciences.
canonization. theology, Pauline theology, apocalyptic, and study of a major facet of the religion of the New Tes-

tural 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 hours may be taken at the 100 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.


>Courses for Graduate/Undergraduate Credit
REL 327. Magic, Witchcraft, and Religion (3). General education further studies course. Cross-listed as ANTH 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.

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 revivals; 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 370. Women in World Religions (3). Cross-listed as WOMS 370. Examines past and present roles and statuses of women in various religious traditions of the world, e.g., Judaism, Christianity, Islam, Hinduism, Buddhism, Confucianism, and Taoism. Examines the portrayal of women's roles in various religious and philosophical texts and the redefinition of women's roles in the modern age within the contexts of these belief systems.

REL 380. Special Studies (3). A concentrated intermediate 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.

Social Work (SCWK)
The undergraduate social work program in WSU's School of Social Work offers courses leading to a Bachelor of Social Work (BSW) degree. The principal objective of the BSW program is to prepare students for beginning-level professional social work practice. Social work majors must complete 45 credits of required social work courses. In addition, social work majors must complete 6 credits of approved human diversity credits, 3 of which must be upper division. Students must be formally admitted to practicum in order to take 400-level classes.

Progression in the social work program has two key stages: initial admission into the program and application and accept-
ance into the practicum.

Requirements for program admission include a 2.00 overall GPA, completion of premajor 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 of admission is application into supervised field practicum. This process is completed the semester before admission into field practicum. Information and application materials for admission into the major and to the field practicum are available from the social work office and at wichita.edu/socialwork.

There will be no credit toward the social work degree for prior life or work experiences.

Accreditation status. The BSW program is accredited through June 2011 by the Council on Social Work Education. Students graduating from an accredited BSW program are eligible for professional social work licensure in Kansas.

Lower-Division Courses
SCWK 201. Introduction to Social Work and Social Welfare (3). General education introductory course. Introduction to, and examination of, social problems, policies, and services in social welfare and social work. Includes history of social welfare, an introduction to the helping process, and current trends in social services and programs. Concepts of diversity are integrated throughout to provide awareness of social issues, poverty, government, and social welfare history.

Upper-Division Courses
SCWK 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 social welfare 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.

**SCWK 301. 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: POLS 121 or HIST 132, and SCWK 300.

**SCWK 302. 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 on experiential learning. Required for social work majors. Prerequisite: SCWK 201.

**SCWK 340. Human Sexuality (3).** Cross-listed as WOMS 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.

**SCWK 351. Social Work Research I (3).** Provides an introduction to social work research methods. Qualitative and quantitative methodologies are examined. Provides a foundation for advanced social work research (SCWK 451).

**SCWK 360. 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 effects 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 hrs).

**SCWK 401. Generalist Practice I (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. Prerequisite: SCWK 302 and admission to practicum. Corequisite: SCWK 402.

**SCWK 402. Practicum I (4).** Placement in community social service agencies for supervised periods of observation and direct service assignments emphasizing performance of basic practice skills and understanding of the social service agency and its role in the community service network. Prerequisites: SCWK 302 and program consent. Corequisite: SCWK 401 except by program consent.

**SCWK 403. Generalist Practice II (3).** Approach emphasizing problem solving, assessment, and the knowledge and skills of generalist practice. Focuses on skills, ethics, techniques, and processes of social work practice with individuals, families, and groups. Prerequisite: SCWK 401. Corequisite: SCWK 404 except by program consent.

**SCWK 404. Practicum II (4).** Placement in community social service 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 service field. Prerequisite: SCWK 402. Corequisite: SCWK 403.

**SCWK 407. Children and Family Policy and Practice (3).** Provides knowledge and intervention skills for social work professionals involved in providing services to children when childcare within the family is temporarily or permanently disrupted. Special emphasis on risk assessment and permanency for children, identification of environmental factors that contribute to neglect and violence in families, legal procedures for Child in Need of Care (CINC) and juvenile offender cases, foster care, family preservation, adoption, children with special needs, and sexual abuse.

**SCWK 451. Advanced Social Work Research (3).** Builds on the basic research knowledge and skills obtained in SCWK 351, and extends student awareness of issues which confront the social worker in combining practice and research. The purpose of the course is to develop advanced research skills. Prerequisite: SCWK 351, or approved introductory research methods course.

**SCWK 460. 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 mezzo 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.

**SCWK 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 Cr/NC.

**Courses for Graduate/Undergraduate Credit**

>SCWK 541. Women, Children, and Poverty (3). General education issues and perspectives course. Cross-listed as WOMS 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.

**SCWK 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.

**SCWK 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 experiences with self-help groups on such topics as addiction, cancer and other illnesses, eating disorders, bereavement, mental illness, and parenting.

**SCWK 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 or program consent.

**SCWK 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. Corequisite: SCWK 720.

**SCWK 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: SCWK 700 or instructor’s consent.

**SCWK 710. Micro Human Behavior and the Social Environment (3).** Provides theories and knowledge of human bio-psycho-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.

**SCWK 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 understanding change and...
empowerment strategies which further social justice in communities and organizations. Prerequisite: SCWK 710 or instructor's consent.

SCWK 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.

SCWK 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 justice, social and economic justice; and the historical, economic, and political 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: SCWK 716.

SCWK 720. Field Practicum I (3). Placement in community social service agencies for supervised periods of observation and direct service assignments emphasizing development of basic practice knowledge and skills. Includes developing understanding of the social service agency and its role in the community service network. Corequisite: SCWK 700.

SCWK 721. Field Practicum II (3). Requires placement in community social service agencies for supervised periods of observation and direct service assignments emphasizing development of basic practice knowledge and skills. Promotes an understanding of the social service agency and its role in the community service network. Corequisite: SCWK 702.


SCWK 731. Social Work and the Law (3). Students develop an integrated, advanced generalist framework for interdisciplinary, advanced generalist practice within a legal setting. Students 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 develop an understanding of how 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 develop skill in communicating with attorneys to enhance their effectiveness in resolving clients' problems.

SCWK 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.

SCWK 751. Fundamentals of Social Work Research (3). Introduces students to the components of quantitative and qualitative research methods and describes 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 1) methods employed in current social work research; and 2) potential benefits of applying these research findings to social work practice. Prerequisite: program approval.

SCWK 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.

SCWK 799. Directed Study (1–3). Individual study with a focus developed in collaboration with a departmental faculty member. Allows students to pursue an 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 for students to learn a great deal about themselves and their surrounding society. 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 society mandates specific skills for interpreting information and observations. Therefore, students majoring in sociology are required to enroll in the following courses:

- **Course**    Hrs.
- SOC 111 Introduction to Sociology    3
- SOC 312 Introduction to Social Research    3
- SOC 351 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 31-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 a student's interests and goals, certain courses in related departments that meet their particular needs and are approved by their adviser 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 306. Introduction to Gender Studies (3). Cross-listed as WOMS 306. Examines the basic theories and research that explain gender in society. The lives of men and women are examined as they pertain to gender and how each is affected by the gendered structure of institutions. Students will be exposed to such topics as courtship and marriage, families, religion, education, the economy, and changing social conditions that influence gender in their personal lives and their communities.

- SOC 307. Romantic Relations in a Changing Society (3). Romantic relationships are studied from the perspective that rapid changes in society can and do affect what we experience as romance. Technology, aging, urbanization, the Internet, the emancipation of women, cohabitation, divorce and later marriage are social variables that impact romantic relations. Examines such subjects with an eye to contemporary research on the topics.

- SOC 308. Relationship Problems (3). Looks at different relationship types and the common problems found in such relationships. Course has practical information about how to avoid the pitfalls of close relationships. Students are exposed to romantic relations, friendships, family, and co-worker relationships and look at how these relationships are affected by such variables as gender, power, conflict, communication, and boundary problems.

- SOC 312. Introduction to Social Research (3). A survey of the many research techniques found in sociology and related fields. Stress conceptual understanding of all phases of the research process. Prerequisite: SOC 111.

- SOC 315. Marriage and Families (3). Aids students in the acquisition of a sociological perspective of relationship processes as they exist in the United States today. Explores dating relationships, mate selection, the transition to parenthood, marital and
family interaction, communication, and other issues relating to families over the life course.

>SOC 316. Men and Masculinities (3). General education issues and perspectives course. Cross-listed as WOMS 316. Presents the sociological perspective on contemporary masculinities. Students are exposed to developmental changes in masculinity across the life course, and such topics as: masculine socialization, race/ethnicity variations, work, relationships, sexualities, media, family, and the men’s movement.

>SOC 320. Contemporary Social Problems (3). General education further study course. Examines the theoretical and methodological frameworks used to analyze contemporary social problems. Emphasis is placed on examining the complex interrelationship among specific social problems and on development of critical-thinking skills necessary to analyze political and social policy debates. Prerequisite: SOC 111.

>SOC 322. Deviant Behavior (3). General education further study course. The structure, dynamics, and etiology of those behavior systems that are integrated around systematic violations of the control norms. Presents and evaluates competing theories of those behavior systems that are integrated around systematic violations of the control norms. Emphasis is placed on examining the complex interrelationship among specific social problems and on development of critical-thinking skills necessary to analyze political and social policy debates. 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 childless, 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. An analysis of class, status, and inequality in various societies especially in the United States. 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-based 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 337. Young Women’s Health (3). General education further study course. Examines topics in young women’s health in the United States. Explores the intersections of physical, emotional, social, economic, intellectual, and spiritual health. Based on a developmental approach, it traces the underpinnings of health from childhood to adolescence and young adulthood. Students leave this class with the knowledge to enhance their own health and well-being. Prerequisite: SOC 111.

>SOC 338. Health and Lifestyle (3). General education further study course. Examines the component dimensions of health and the societal-level factors and lifestyle choices that influence health across the life span. Prerequisite: SOC 111.

>SOC 346. Sociology of Globalization (3). General education issues and perspectives course. Critically examines the global integration of markets, or “globalization.” Identifies and explores social processes, and relations surrounding the flow among international flows of people, goods, services, information, and assets. Identifies and explores social issues relating to political, cultural, and economic causes and effects of globalization. Topics include trade agreements such as NAFTA, international institutions such as the International Monetary Fund and the World Bank, the global restructuring of workplaces and jobs, the globalization of American culture, effects of globalization on the natural environment, and the various types of responses to globalization by individuals, interest groups and governments. Prerequisite: SOC 111.

>SOC 350. Social Interaction (3). General education further study course. Studies the effect groups have on individuals. Primarily focuses 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 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. Cr/NCr only. Prerequisite: instructor’s consent.

Courses for Graduate/Undergraduate Credit

SOC 501. Sociological Statistics (3). Application of descriptive and inferential statistics to sociological problems. Includes computer experience with statistical software. Prerequisites: SOC 111, SOC 312 or concurrent enrollment, and MATH 111.

SOC 506. Psychology of Helping Relationships (3). Cross-listed as NURS 567 and PSY 506. Introduces students to a psychological perspective on helping relationships that is useful in both practice and research. Topics covered include the definition of relationships, and identification of the ways in which the roles of helper and help seeker can be structured to maximize effectiveness: e.g., power, distance, similarity, and reciprocity. Relationships of interest include: counseling and psychotherapy, nursing and doctoring, family caregiving, mentoring, self-help/mutual aid, and volunteering. The emerging topic of “relationship-centered care models” in the education of health care professionals is discussed. Prerequisite: 6 hours in psychology including PSY 111 or instructor’s consent.

SOC 512. Measurement and Analysis (4). An applied study of the conceptual tools and methodological skills needed to conduct quantitative sociological research. Prerequisites: SOC 111, 312, 501.

>SOC 513. Sociology of Aging (3). General education further study course. Cross-listed as GERO 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. Family Diversity (3). General education further study course. Analyzes the varieties of family forms in the U.S. with particular emphasis on the intersection of gender, race/ethnicity, social class, and sexual orientation. Attention is given to the reciprocal effects of families and their social environments and the impact of public policies on families. Prerequisite: SOC 111.

>SOC 516. Sociology of Gender Roles (3). General education further study course. Cross-listed as WOMS 516. 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 GERO 520. Examines the families and family systems of older people. Emphasizes demographic and historical changes, caregiving, and intergenerational exchanges and relationships. Prerequisite: SOC 111 or GERO 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 using 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). 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 539 or 540.*

SOC 543. Aging and Public Policy (3). Cross-listed as GERO 543. Seminar-style course explores the impact of an aging population on social institutions, covers the history of American aging policies, the organization and financing of health care for the elderly, and discusses policy analysis as an evaluation tool for comparing public approaches to responding to the needs of an increasingly diverse aging population. Considers the process of policy formation, identifies key players and interest groups and contrasts political ideologies regarding federal, state and private responsibilities for older people. The course emphasizes Social Security, the Older Americans Act, Medicare, and Medicaid as policy examples. Also looks at the potential contributions of the older population to society (volunteer services, provision of family care, etc.) as affecting and affected by policy. Prerequisite: SOC 111 or GERO 100 or junior standing.

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 adviser is necessary. With adviser approval, up to 4 hours of cooperative education may count toward graduate degree requirements. Graded CR/NCR only.

*Prerequisite may be waived with departmental consent.

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

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 of service 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 assistantships 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 Riper—are awarded on a competitive basis to students with exemplary records and specific career interests in the field of public administration.

Public Administration (PADM) Upper-Division Courses

>PADM 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.

Courses for Graduate/Undergraduate Credit

PADM 501. Integrity in Public Service (3). Cross-listed as CJ 501. Exposes the student to basic principles of personal and professional integrity and how those principles apply to 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.

PADM 550. Workshop (3). Specialized instruction using variable formats in relevant urban and public affairs subjects. Repeatable for credit up to 6 hours.

PADM 560. The Planning Process (3). For students desiring to work in an urban 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 elective officials as participants in the planning process.

PADM 585. 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.

PADM 621. Environmental Law (3). 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 adviser-approved methods class.

PADM 625. Computer Applications for Public Policy (3). Familiarizes students with major types of software applications for microcomputers and their use in public policy analysis.
WOMS 391 Women's Global Issues
WOMS 379 Asian Women
WOMS 380K Women and Peace
WOMS 391 Women's Global Issues
WOMS 482 Latinas in Culture and Society
WOMS 513 Women in Africa
WOMS 514 Women in the Middle East
WOMS 532 Women in Ethnic America
WOMS 533 Women and the Law
WOMS 586 Gender, Race, and Knowledge

Core area I: Internationalism
ANTH 542 Women in Other Cultures
HIST 357 Women in the Ancient World
HIST 517 Medieval Women
WOMS 325 Women in the Political System
WOMS 370 Women in World Religions
WOMS 379 Asian Women
WOMS 380K Women and Peace
WOMS 391 Women's Global Issues
WOMS 482 Latinas in Culture and Society
WOMS 513 Women in Africa
WOMS 514 Women in the Middle East
WOMS 532 Women in Ethnic America
WOMS 533 Women and the Law
WOMS 586 Gender, Race, and Knowledge

Core area II: Representation
WOMS 330 Women's Personal Narratives
WOMS 338 Philosophy of Feminism
WOMS 482 Latinas in Culture and Society
WOMS 536 Writing by Women
WOMS 510 Hollywood Melodrama
WOMS 523 Feminist Film Criticism
WOMS 586 Gender, Race, and Knowledge

Core area III: Social Issues
WOMS 306 Intro. to Gender Studies
WOMS 316 Men and Masculinities
WOMS 340 Human Sexuality
WOMS 345 Women and Dependencies
WOMS 380 Special Topics (1–3)
WOMS 482 Latinas in Culture and Society
WOMS 516 Sociology of Gender Roles
WOMS 533 Women and the Law
WOMS 534 Psychology of Women
WOMS 541 Women, Children, and Poverty
WOMS 543 Women and Health
WOMS 580T Women and Aging
WOMS 586 Gender, Race, and Knowledge

Lower-Division Courses

WOMS 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.

WOMS 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 communication in sexual relationships.

WOMS 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.

WOMS 150. Workshops (1–2). Topics vary by semester. Past topics have included assertion training (introductory and advanced) and rape information and prevention.

WOMS 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 professional and personal choices. Examines barriers that exist to assertive behavior and ways to overcome them. Graded S/II.

WOMS 150F. Rape Information and Prevention (1). Workshop; explores the cultural myths and stereotypes about rape, the legal system, methods of self-protection, community resources providing help for victims, and other related issues. Primary focus on prevention of rape itself.

WOMS 150M. Advanced Assertion Training (1). For students who have taken WOMS 150C. Applies assertion principles and behaviors to specific topics such as employment, male-female relations, sexuality, parent-child relations, and organized group activity. Prerequisite: WOMS 150C.

WOMS 180. Special Topics (1–3). Topics vary by semester.

> WOMS 190. Women 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. Emphasizes 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

WOMS 240. Ethnic Women in America (3). Cross-listed as ETHS 240.

> WOMS 287. Women in Society: Social Issues (3). General education introductory course. Examines women’s efforts to claim their identities 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

> WOMS 306. Introduction to Gender Studies (3). General education further study course. Cross-listed as SOC 306. Examines the basic theories and research that explain gender in society. The lives of men and women are examined as they pertain to gender and how each is affected by the gendered structure of institutions. Students are exposed to such topics as courtship and marriage, families, religion, education, the economy, and changing social conditions that influence gender in their personal lives and their communities.

> WOMS 316. Men and Masculinities (3). General education issues and perspectives course. Cross-listed as SOC 316. Presents the sociological perspectives on contemporary masculinities. Students are exposed to developmental changes in masculinity across the life course, and such topics as: masculine socialization, race/ethnicity variations, work, relationships, sexualities, media, family, and the men’s movement.

WOMS 325. Women in the Political System (3). Cross-listed as POLS 325. Examines the political process of policy making, using policies of current interest concerning women. Examines 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.

> WOMS 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.

WOMS 338. Philosophy of Feminism (3). Cross-listed as PHIL 338.


WOMS 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 feminist theory and women’s roles in co-dependency.

> WOMS 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.

WOMS 370. Women in World Religions (3). Cross-listed as REL 370. Examines past and present roles and statuses of women in various religious traditions of the world, e.g., Judaism, Christianity, Islam, Hinduism, Buddhism, Confucianism, and Taoism. Examines the portrayal of women’s roles in various religious and philosophical texts and the redefinition of women’s roles in the modern age within the contexts of these belief systems.

WOMS 379. Asian Women in Modern History (3). Examines women’s historical and contemporary experiences in Asian America and modern Asia. Investigates Asian women’s contributions to the rapid industrialization and the export-oriented economies in the Asia-Pacific region within the context of our global economy. Traces the ways in which the changes in immigration laws during the 20th century affected the pattern of Asian women’s immigration to the U.S. Also introduces writings that integrate Asian-American women’s experiences into the discourses on race, gender, and class in the U.S.

WOMS 380. Special Topics (1–3). Focuses on intermediate topics of interest to women’s studies.

WOMS 380K. Women and Peace (3). Explores many facets of women’s strategies for interpersonal and political peacemaking. Also explores women’s pacifist and patriotic strategies, including service, resistance, and direct actions.

> WOMS 387. Women in Society: Cultural Images (3). General education further study course. Examines the impact of cultural images and ideas in women’s lives. Emphasis is on the intersection of gender and race in the shaping of social experience and political interest. Major topics include ideology as vehicle through which women come to belong to and negotiate society; privilege, intellectual origins of ideas about gender and race, and differences in status among women that impact their lives, their relations with men and with each other.

> WOMS 391. Women’s Global Issues (3). General education further study course. Examines 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.

WOMS 480. Special Topics (1–3). Provides an introduction to the exploration of various women’s studies themes.

WOMS 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.

WOMS 482. Latinas 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

WOMS 510. Hollywood Melodrama: The Woman’s Film (3). Melodrama, as a “woman’s genre,” is important to the development of feminist film criticism, which interrogates the contradictory meanings of motherhood and family within this culture. Through readings and films, this course provides a stylistic, literary, and cultural/historical background for this 19th-century form with a specific focus on the woman’s film and the family melodrama which highlight woman’s position within the home. Uses textual analysis and some psychoanalytic criticism to explore and critique the fantasies and desires expressed in the visual excesses of film melodrama.

WOMS 513. Women in Africa (3). Who is the African woman? What are her joys, obstacles, struggles, triumphs, and rites of passage? This course addresses these issues through their intersection with gender, race/ethnicity, and class in selected traditional and postcolonial settings on the African continent. Facilitates appreciation of African women and gender through African cultural voices. Emphasizes the views of women expressed in their songs, dances, dramas, ritual actions, activism, and writing. Telephone/video conference with women in Africa, as well as stories, poems, and other literary, historical, and anthropological material will be used.

WOMS 514. Women in the Middle East (3). Examines Arab women of the Middle East. Focuses on women in the region historically designated as the “fertile plains”—Egypt, Lebanon, Syria, Jordan, and the Palestinian Territories. Covers the impact of Western colonialism and global geopolitics on women’s lives; women’s activism in relation to nationalism and women’s rights; Western racial stereotypes of Arab women and men and their role in foreign intervention in the 20th and 21st centuries. Provides case study in the relationship of nationalism and women’s rights as framed by Arab women’s studies.

WOMS 516. Sociology of Gender Roles (3). Cross-listed as SOC 516. Analyzes the institutional sources of male and female roles, the source of changes in these roles, the consequent ambiguities and conflicts. Prerequisite: SOC 111.

WOMS 523. 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.

WOMS 532. Women in Ethnic America (3). Cross-listed as HIST 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.

WOMS 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.

WOMS 534. Psychology of Women (3). Cross-listed as PSY 534.

WOMS 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 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.

WOMS 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.

WOMS 537. Contemporary Women’s Drama (3). 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.

>WOMS 541. Women, Children, and Poverty (3). General education issues and perspectives course. Cross-listed as SCWK 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 sciences.

WOMS 542. Women in Other Cultures. (3). Cross-listed as ANTH 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.

WOMS 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.

WOMS 570. Directed Readings (1–3). For students who wish to pursue special reading or research projects not covered in coursework. Prerequisite: instructor’s consent.

WOMS 580. Special Topics (1–3). Focuses on advanced topics of interest to women’s studies.
University Faculty—2009–2010 (as of January 2009)

Note: Date(s) following title refers to time of initial (and successive) appointments.

Aagaard, Alan A., Assistant Professor, Department of Curriculum and Instruction (1978). BA, California State University, 1969; MA, 1970; EDD, University of Northern Colorado, 1975.

Abdnour-Helm, Sue, Omer Professor in Business, Department of Finance, Real Estate, and Decision Sciences (1998). BS, Birzeit University, 1983; MS, Southampton University, 1988; PhD, Indiana University, 1994.

Acker, Andrew E., Professor, Department of Mathematics and Statistics (1987). BS, Union College, 1965; PhD, Boston University, 1972.

Ackerman, Paul D., Assistant Professor and Assistant Chairperson, Department of Psychology (1969). BA, University of Kansas, 1964; MA, 1966; PhD, 1968.


Ahmed, Ikramuddin, Associate Professor, Department of Mechanical Engineering (2000). BSME, Bangladesh University of Engineering and Technology, 1988; MSME, University of Texas-Austin, 1993; PhD, 1997.

Akrobova, Maria G., Assistant Professor and Graduate Coordinator, Department of Modern and Classical Languages and Literatures (2003). BA, Sophia University, 1993; MA, 1995; PhD, University of Kansas, 2003.

Alagic, Mara, Associate Professor, Department of Curriculum and Instruction and Assistant Dean, Graduate School (1999). BA/MA, University of Belgrade, Yugoslavia, 1975; PhD, 1985.


Anderson, Peggy J., Associate Professor, Department of Curriculum and Instruction (1993). BS, Emporia State University, 1967; MA, University of Kansas, 1979; PhD, Wichita State University, 1993.


Armstrong, Richard N., Associate Professor and Director of Basic Oral Communication Program, Elliott School of Communication; Coordinator of General Education, Division of Academic Affairs and Research (1987). BA, Southern Utah University, 1972; MA, Brigham Young University, 1974; PhD, Bowling Green State University, 1978.


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Fox, Glenn J., Instructor, Department of Mathematics and Statistics (2005). BS, Wichita State University, 1983; MS, 1986; PhD, University of Georgia, 1997.

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 Yenne, Vernon L.
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 Zumwalt, Glen W.
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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 normally 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 subject areas are used in references to courses offered by those departments.

ACCT  Accounting
AE   Aerospace Engineering
ANTH  Anthropology
ARTE  Art Education
ARTF  Art and Design Foundation
ARTG  Graphic Design
ARTH  Art History
ARTS  Studio Arts
BADM  General Business Administration
BIOL  Biological Sciences
BLAW  Business Law
CESP  Counseling, Educational, and School Psychology
CHEM  Chemistry
CHIN  Chinese
CI  Curriculum and Instruction
CJ  Criminal Justice
COMM  Communication
CS  Computer Science
CSD  Communication Sciences and Disorders
DANC  Dance
DH  Dental Hygiene
DS  Decision Sciences
ECON  Economics
EE  Electrical Engineering
EEPS  Earth, Environment and Physical Sciences
EL  Educational Leadership
EMBA  Executive Master of Business Administration
ENGL  English Language and Literature
ENGR  General Engineering
ENTR  Entrepreneurship
ETHS  Ethnic Studies
FA  Fine Arts—general
FIN  Finance
FREN  French
FS  Forensic Science
GEOG  Geography
GEOL  Geology
GERM  German
GERO  Gerontology
GREK  Greek
HIST  History
HMCD  Health Services Management and Community Development
HNRS  Honors Program
HP  Health Professions—general
HPS  Human Performance Studies
HRM  Human Resource Management
HS  Health Sciences
IB  International Business
IE  Intensive English
IME  Industrial and Manufacturing Engineering
ITAL  Italian
JAPN  Japanese
LASI  Liberal Arts Interdisciplinary
LATN  Latin
LING  Linguistics
MATH  Mathematics
MBA  Master of Business Administration
MCLL  Modern and Classical Languages and Literatures
ME  Mechanical Engineering
MEDT  Medical Technology
MGMT  Management
MICT  Mobile Intensive Care Technician
MIS  Management Information Systems
MKT  Marketing
MUSA  Applied Music
MUSC  Musicology-Composition
MUSE  Music Education
MUSP  Music Performance
NURS  Nursing
PA  Physician Assistant
PADM  Public Administration
PC  Personal Computing
PHIL  Philosophy
PHS  Public Health Sciences
PHYS  Physics
POLIS  Political Science
PSY  Psychology
PT  Physical Therapy
RE  Real Estate and Land Use Economics
REL  Religion
RUSS  Russian
SCWK  Social Work
SOC  Sociology
SMGT  Sport Management
SPAN  Spanish
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Wichita State University Map and Building Abbreviations

Campus

Wichita State's 321-acre campus is located in the northeast section of Wichita. It is bounded by 17th Street on the south, 21st Street on the north, Hillside Avenue on the west, and Oliver Street on the east. Visitors coming to campus on the Kansas Turnpike should use Exit 50 (East Wichita) or Exit 53 (K-96 Wichita).

Parking

Visitors to the Wichita State campus should obtain temporary parking permits from the Wichita State University Police Department, 200 Gentry. This is the building topped by a tall radio tower on the east side of campus. Visitor parking is available in all lots but the reserved lots, which are designated by a red sign with a number at the top.

Students must pay a facilities fee and register their vehicle before parking on campus. This can be done during the registration/payment process, or separately at the University Police Department. The registration decal or hang tag must be properly displayed. Student parking is available in the lots marked on the next page with diagonal stripes.

Map Legend

Buildings are listed in alphabetical order, and building abbreviations, where they exist, are indicated to the left of the building name. College, student service, and major administrative offices are listed with the building that houses them.

We have tried to indicate buildings where some barriers to handicapped students exist. There is an ongoing program to remove these. Multilevel buildings have an elevator unless otherwise indicated.

<table>
<thead>
<tr>
<th>Abbrev.</th>
<th>NAME</th>
<th>Area</th>
</tr>
</thead>
<tbody>
<tr>
<td>AL</td>
<td>Abilah Library</td>
<td>D</td>
</tr>
<tr>
<td>AH</td>
<td>Ahlberg Hall</td>
<td>C-D</td>
</tr>
<tr>
<td>AR</td>
<td>Aviation Research, National Institute for</td>
<td>D-E</td>
</tr>
<tr>
<td>BR</td>
<td>Brennan I.</td>
<td></td>
</tr>
<tr>
<td>CA</td>
<td>CAC Theater</td>
<td></td>
</tr>
<tr>
<td>CD</td>
<td>Child Development Center</td>
<td>A</td>
</tr>
<tr>
<td>CE</td>
<td>Corbin Education Center</td>
<td>D</td>
</tr>
<tr>
<td>CU</td>
<td>Credit Union</td>
<td></td>
</tr>
<tr>
<td>DH</td>
<td>Devlin Hall</td>
<td>C</td>
</tr>
<tr>
<td>DA</td>
<td>Duerksen Fine Arts Center</td>
<td>B</td>
</tr>
<tr>
<td>ES</td>
<td>Eck Stadium (Tyler Field)</td>
<td>E</td>
</tr>
<tr>
<td>EB</td>
<td>Engineering Building</td>
<td>C-D</td>
</tr>
<tr>
<td>EH</td>
<td>Elliott Hall</td>
<td>C-D</td>
</tr>
<tr>
<td>ER</td>
<td>Engineering Research</td>
<td></td>
</tr>
<tr>
<td>FT</td>
<td>Fairmount Commons</td>
<td>A</td>
</tr>
<tr>
<td>GB</td>
<td>Geology Building</td>
<td>C-D</td>
</tr>
<tr>
<td>GI</td>
<td>James S. Garvey International Center</td>
<td>A-B</td>
</tr>
</tbody>
</table>
# Degrees and Academic Majors

## W. Frank Barton School of Business

<table>
<thead>
<tr>
<th>Major</th>
<th>Degree</th>
</tr>
</thead>
<tbody>
<tr>
<td>Accounting</td>
<td>B M</td>
</tr>
<tr>
<td>Business Administration</td>
<td>B M</td>
</tr>
<tr>
<td>Economics</td>
<td>B M</td>
</tr>
<tr>
<td>Entrepreneurship</td>
<td>B</td>
</tr>
<tr>
<td>Finance</td>
<td>B</td>
</tr>
<tr>
<td>Human Resource Management</td>
<td>B</td>
</tr>
<tr>
<td>International Business</td>
<td>B</td>
</tr>
<tr>
<td>Management</td>
<td>B</td>
</tr>
<tr>
<td>Management Information Systems</td>
<td>B</td>
</tr>
<tr>
<td>Marketing</td>
<td>B</td>
</tr>
</tbody>
</table>

## College of Education

<table>
<thead>
<tr>
<th>Major</th>
<th>Degree</th>
</tr>
</thead>
<tbody>
<tr>
<td>Athletic Training</td>
<td>B</td>
</tr>
<tr>
<td>Counseling</td>
<td>M</td>
</tr>
<tr>
<td>Curriculum and Instruction</td>
<td>M</td>
</tr>
<tr>
<td>Educational Leadership</td>
<td>M D</td>
</tr>
<tr>
<td>Educational Psychology</td>
<td>M</td>
</tr>
<tr>
<td>Elementary Education</td>
<td>B</td>
</tr>
<tr>
<td>Exercise Science</td>
<td>B M</td>
</tr>
<tr>
<td>Physical Education</td>
<td>B</td>
</tr>
<tr>
<td>School Psychology</td>
<td>S</td>
</tr>
<tr>
<td>Secondary Education</td>
<td>B</td>
</tr>
<tr>
<td>Special Education</td>
<td>M</td>
</tr>
<tr>
<td>Sport Management</td>
<td>B M</td>
</tr>
<tr>
<td>Teaching</td>
<td>M</td>
</tr>
</tbody>
</table>

## College of Engineering

<table>
<thead>
<tr>
<th>Major</th>
<th>Degree</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aerospace Engineering</td>
<td>B M D</td>
</tr>
<tr>
<td>Bioengineering</td>
<td>B</td>
</tr>
<tr>
<td>Computer Engineering</td>
<td>B</td>
</tr>
<tr>
<td>Computer Networking</td>
<td>M</td>
</tr>
<tr>
<td>Computer Science</td>
<td>B M</td>
</tr>
<tr>
<td>Electrical Engineering</td>
<td>B M D</td>
</tr>
<tr>
<td>Engineering Management</td>
<td>M</td>
</tr>
<tr>
<td>Industrial Engineering</td>
<td>B M D</td>
</tr>
<tr>
<td>Manufacturing Engineering</td>
<td>B</td>
</tr>
<tr>
<td>Mechanical Engineering</td>
<td>B M D</td>
</tr>
</tbody>
</table>

## College of Fine Arts

<table>
<thead>
<tr>
<th>Major</th>
<th>Degree</th>
</tr>
</thead>
<tbody>
<tr>
<td>Art</td>
<td>B</td>
</tr>
<tr>
<td>Art Education</td>
<td>B</td>
</tr>
<tr>
<td>Art History</td>
<td>B</td>
</tr>
<tr>
<td>Art Studio Art Emphases</td>
<td>B M*</td>
</tr>
<tr>
<td>Graphic Design</td>
<td>B</td>
</tr>
<tr>
<td>Music Emphases: History-Literature, Performance, Piano Pedagogy, Theory-Composition</td>
<td>B M</td>
</tr>
<tr>
<td>Music Education</td>
<td>B M</td>
</tr>
<tr>
<td>Musical Theatre</td>
<td>B</td>
</tr>
<tr>
<td>Performing Arts-Dance</td>
<td>B</td>
</tr>
<tr>
<td>Theatre</td>
<td>B</td>
</tr>
</tbody>
</table>

## College of Health Professions

<table>
<thead>
<tr>
<th>Major</th>
<th>Degree</th>
</tr>
</thead>
<tbody>
<tr>
<td>Audiology</td>
<td>D</td>
</tr>
<tr>
<td>Communication Sciences and Disorders</td>
<td>B M D</td>
</tr>
<tr>
<td>Dental Hygiene</td>
<td>B</td>
</tr>
<tr>
<td>Health Sciences</td>
<td>B</td>
</tr>
<tr>
<td>Health Services Management and Community Development</td>
<td>B</td>
</tr>
<tr>
<td>Medical Technology</td>
<td>B</td>
</tr>
<tr>
<td>Nursing</td>
<td>B M D</td>
</tr>
<tr>
<td>Physical Therapy</td>
<td>D</td>
</tr>
<tr>
<td>Physician Assistant</td>
<td>M</td>
</tr>
</tbody>
</table>

## Fairmount College of Liberal Arts and Sciences

<table>
<thead>
<tr>
<th>Major</th>
<th>Degree</th>
</tr>
</thead>
<tbody>
<tr>
<td>Anthropology</td>
<td>B M</td>
</tr>
<tr>
<td>Biological Sciences</td>
<td>B M</td>
</tr>
<tr>
<td>Chemistry (Chemistry, Chemical Science)</td>
<td>B M D</td>
</tr>
<tr>
<td>Communication:</td>
<td>B M</td>
</tr>
<tr>
<td>Earth Environment and Physical Sciences (EEPS)</td>
<td>M</td>
</tr>
<tr>
<td>Economics</td>
<td>B</td>
</tr>
<tr>
<td>English (Creative Writing, English, Language and Literature)</td>
<td>M*</td>
</tr>
<tr>
<td>Field Majors:</td>
<td>B M</td>
</tr>
<tr>
<td>Forensic Science</td>
<td>B</td>
</tr>
<tr>
<td>General Studies/Liberal Studies:</td>
<td>A B M</td>
</tr>
<tr>
<td>Mathematics (Mathematics, Statistics)</td>
<td>B M D</td>
</tr>
<tr>
<td>Modern and Classical Languages and Literatures: French, Latin, Spanish</td>
<td>B</td>
</tr>
<tr>
<td>Philosophy</td>
<td>B</td>
</tr>
<tr>
<td>Physics</td>
<td>B</td>
</tr>
<tr>
<td>Political Science</td>
<td>B</td>
</tr>
<tr>
<td>Pre-Professional Programs:</td>
<td>B</td>
</tr>
<tr>
<td>Psychology</td>
<td>B M D</td>
</tr>
<tr>
<td>Public Administration</td>
<td>M</td>
</tr>
<tr>
<td>Social Work</td>
<td>B M</td>
</tr>
<tr>
<td>Sociology</td>
<td>B M</td>
</tr>
<tr>
<td>Spanish</td>
<td>M</td>
</tr>
<tr>
<td>Women’s Studies</td>
<td>B</td>
</tr>
</tbody>
</table>

*Master of Fine Arts, a terminal degree

A = Associate  B = Bachelor  M = Master  S = Specialist  D = Doctorate