

| WICHITA.EDU |



| 2013-2014 |

# UNDERGRADUATE CATALOG



WICHITA STATE  
UNIVERSITY

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

ABET, <http://www.abet.org>  
Accreditation Review Commission on Physician Assistant Education  
American Association of State Colleges and Universities  
American Chemical Society  
American Dental Educators' Association  
American Psychological Association  
American Speech-Language and Hearing Association  
Association of Public and Land-Grant Universities  
Association to Advance Collegiate Schools of Business –  
Business and Accounting  
Coalition of Urban Serving Universities, The  
Commission on Accreditation in Physical Therapy Education of the  
American Physical Therapy Association  
Commission on Accreditation of Athletic Training Education  
Commission on Collegiate Nursing Education  
Commission on Dental Accreditation of the American Dental  
Association  
Commission on Sport Management Accreditation  
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 & Design Commission  
on Accreditation  
National Association of School Psychologists  
National Association of Schools of Dance  
National Association of Schools of Music  
National Association of Schools of Public Affairs & Administration  
National Council for Accreditation of Teacher Education  
The Higher Learning Commission\*

\* The Higher Learning Commission, 230 South LaSalle Street, Suite 7-500; Chicago, Illinois 60604;  
1 (800) 621-7440, [ncahlc.org](http://ncahlc.org)

**Undergraduate Catalog 2013–2014**

This catalog is a guide for information only and is not a contract. This catalog becomes effective fall semester 2013 and extends through the summer session 2014. The official university address is Wichita State University, 1845 Fairmount, Wichita, Kansas 67260. The general university telephone number is (316) 978-3456. For admission information, call toll-free 1 (800) 362-2594. The university's World Wide Web address is: [www.wichita.edu](http://www.wichita.edu)

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

# Undergraduate Catalog

## 2013-2014

Wichita State University  
1845 Fairmount  
Wichita, Kansas 67260  
(316) 978-3456  
[www.wichita.edu](http://www.wichita.edu)



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# 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 **advisers**, 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 procedures questions.

This preface is a guide for students; it highlights some of the subjects covered in the Undergraduate Catalog. For specific topics, see the catalog's table of contents and index.

## About Our University

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

## About Becoming a Student

The first step in becoming a student is getting admitted to the university. There are several types of admission to Wichita State's degree and nondegree programs. Learn about these and find a complete guide to becoming an official WSU student in this catalog. You will also want to visit the Marcus 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 or online.

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

If you know what your major will be or if you've already chosen a degree plan, you'll be assigned an adviser within one of the colleges at WSU. Your adviser 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 at the back of the catalog for a table listing 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.

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## 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 orientation programs introduce 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, just before the listings for individual colleges.

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 email 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 WSU Undergraduate 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 members listed in this catalog along with their title, academic field, and educational background.

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## 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 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 WSU Undergraduate 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 I 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.

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.

### Student Life

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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 WSU Undergraduate 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 WSU Undergraduate 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.

### General Education

#### Colleges

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# Academic Calendar for 2013–2014

## Fall Semester 2013

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|--------------------------|--|
| April–August .....       | Fall semester registration   |
| August 19 .....          | Weekday and evening classes begin  |
| September 2 .....        | Labor Day holiday  |
| October 9 .....          | Midterm point  |
| October 12–15 .....      | Fall recess (begins at 2 p.m.)   |
| October 29 .....         | Final date for withdrawal with nonpenalty grades   |
| November 11 .....        | Web registration for spring semester begins (exact dates published in the Schedule of Courses) |
| November 27–Dec. 1 ..... | Thanksgiving recess  |
| December 5 .....         | Last day of classes  |
| December 6 .....         | Study day  |
| December 7–13 .....      | Final examinations   |
| December 13 .....        | Fall semester ends   |
| TBA .....                | Commencement   |

## Spring Semester 2014

|                        |  |
|------------------------|--|
| November–January ..... | Spring semester registration   |
| January 20 .....       | Martin Luther King, Jr. Day holiday  |
| January 21 .....       | Classes begin  |
| March 12 .....         | Midterm point  |
| March 17–23 .....      | Spring recess  |
| April 5 .....          | Final date for withdrawal with nonpenalty grades   |
| April 8 .....          | Web registration for fall semester begins (exact dates published in the Schedule of Courses) |
| May 8 .....            | Last day of classes  |
| May 9 .....            | Study day  |
| May 10–16 .....        | Final examinations   |
| May 16 .....           | Spring semester ends   |
| TBA .....              | Commencement   |

## Summer Session 2014

|                  |   |
|------------------|---|
| April–June ..... | Summer session registration                             |
| May 26 .....     | Memorial Day, holiday                                   |
| May 19–30 .....  | Pre-session and workshops (nine days)                   |
| June 2 .....     | Classes begin, first four-week term and eight-week term |
| June 27 .....    | Last day of first four-week term                        |
| June 30 .....    | Classes begin, second four-week term                    |
| July 4 .....     | Independence Day holiday                                |
| July 25 .....    | Summer session ends                                     |

*These dates are subject to change.*



# General Information

## 2013–2014 University and Academic Officers

John W. Bardo, *president*

Anthony Vizzini, *vice president for academic affairs*

Ted D. Ayres, *vice president and general counsel*

Mary L. Herrin, *vice president for administration and finance*

Wade Robinson, *vice president for campus life and university relations*

Eric Sexton, *director of Intercollegiate Athletic Association, Inc.*

Andrew Schlapp, *director, government relations*

Abu Masud, *interim dean of the Graduate School*

Douglas Hensler, *dean of the W. Frank Barton School of Business*

Sharon H. Iorio, *dean of the College of Education*

Vishwanath Prasad, *interim 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*

Ronald R. Matson, *interim dean of the Fairmount College of Liberal Arts and Sciences*

Donald L. Gilstrap, *dean of university libraries*

## Kansas Board of Regents

Andy Tompkins, *president and CEO*

Board Members:

Christine Downey-Schmidt, *Inman*

Mildred Edwards, *Wichita*

Tim Emert, *Independence*, chair

Fred Logan, *Prairie Village*, vice chair

Dan Lykins, *Topeka*

Ed McKechnie, *Arcadia*

Robba Moran, *Hays*

Janie Perkins, *Garden City*

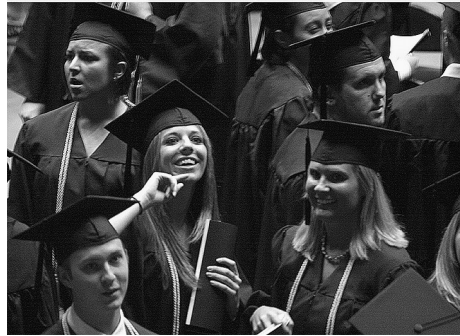
Kenny Wilk, *Lansing*

## 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 114 degree programs that range from the associate to the doctoral



Courtesy Photos

level; nondegree 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, evening and summer courses in more than 200 areas of study at the main, West and South Campuses. Of the almost 15,000 students, 86 percent are from Kansas, representing 101 counties in the state, and the remainder are from almost every state in the U.S. and 110 foreign countries. The average age of entering freshmen at Wichita State is 19; the average age of all undergraduate students is 24.

Nearly 69 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 70 undergraduate degree programs in more than 200 areas of study in six undergraduate colleges: W. Frank Barton School of Business, College of Education, College of Engineering, College of Fine Arts, College of Health Professions, and the Fairmount College of Liberal Arts and Sciences. It also offers an associate degree and 12 certificate programs.

The Graduate School offers an extensive program including 41 master's degrees, a Specialist in Education degree, 12 doctoral degrees and 20 certificate programs. WSU is accredited by the North Central Association of Colleges and Schools and 20 program-specific accrediting agencies. A listing of WSU programs and degrees is located beginning on page four of the graduate catalog, and at the back of the undergraduate catalog.

Wichita State has 445 full-time faculty and 74 part-time faculty, with 75 percent of the faculty having earned the highest degree in their fields.

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

77 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, baseball, volleyball and softball.

More than 160 social and special interest clubs provide opportunities for students to meet and work with others who share their interests. Approximately 20 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](http://wichita.edu).

## History

Wichita State University began as Fairmount College, a Congregational institution, in 1895. 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 River. 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.

During its history, the university has had 13 presidents: Nathan J. Morrison, 1895–1907; Henry E. Thayer, 1907–1914; Walter H. Rollins, 1914–1921; John Duncan Finlayson, 1922–1927; Harold W. Foght, 1927–1933; William M. Jardine, 1934–1949; Harry F. Corbin, 1949–1963; Emory Lindquist, 1963–1968; Clark D. Ahlberg, 1968–1983; Warren B. Armstrong, 1983–1994; Eugene M. Hughes, 1993–1998; Donald L. Beggs, 1999–2012; and John W. Bardo, 2012–present.

## University and Specialty Accreditation

Wichita State University has held regional accreditation since 1927 from the Higher Learning Commission. The university will undergo its next comprehensive evaluation during the 2016-2017 academic year. Additionally, several WSU programs hold specialty accreditation. The accreditation status of those programs can be found at [wichita.edu/assessment](http://wichita.edu/assessment) or in information published by the accredited programs. In some cases regional and specialty accreditation status is required by some programs for its graduates to sit for certification examinations and/or to obtain a license and/or a registration. Regional accreditation by The Higher Learning Commission does not constitute specialty accreditation for individual programs.

# Admission to Wichita State

## Undergraduate Admission

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

The admission procedures, outlined in the box, are for degree-bound domestic students. Information for nondegree-bound students is below. Information for international students follows.

## Admission Categories

Students may be admitted as degree-bound or nondegree-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.

**Nondegree-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. Nondegree 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 qualifying GED scores, 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 nondegree for their first 15 credit hours. Beyond the 15 hour limit, students must update to a degree-bound major and meet the requirements for the intended program. Students must submit any additional transcripts before being updated to a degree-bound major.

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

## Admission Requirements\*—Undergraduate; Domestic

### Freshmen

**Kansas residents attending accredited high schools must:**

- Achieve a minimum ACT composite of 21 or a minimum combined SAT-I of 980 (verbal and math scores); *or*
- Rank in the top one-third of their high school's graduating class; *or*
- Complete the precollege curriculum\* with at least a 2.000 grade point average (GPA) on a 4.000 scale.

*Note:* These standards apply to those under the age of 21.

**Nonresidents\*\* attending accredited high schools must:**

- Achieve a minimum ACT composite of 21 or a minimum combined SAT-I of 980 (verbal and math scores); *or*
- Rank in the top one-third of their high school's graduating class; *or*
- Complete the precollege curriculum\* with at least a 2.500 grade point average (GPA) on a 4.000 scale.

*Note:* These standards apply to all nonresidents regardless of age.

**Kansas residents attending nonaccredited high schools** (including permanent residents with international high school work) or home-schooled students:

- Can be admitted with a qualifying Kansas GED (see scores below); *or*
- Have at least a 21 on the ACT (SAT of 980).

**Nonresidents\*\* from nonaccredited high schools** are reviewed on a case-by-case basis. For more information, please contact the Office of Admissions.

**GED students must:**

- Have a minimum score of 510 on each sub-test and an overall score of 2,550 to be admitted. If GED was taken before 2002, please call the Office of Admissions for score requirements.

### Transfer students

- 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.
- With 23 or fewer transfer hours, must have a minimum cumulative GPA of 2.000, *and* meet one of the freshman qualified admissions requirements.

**Some academic colleges at Wichita State require an additional transfer GPA requirement for admission. For more information contact the WSU Office of Admissions.**

Admission remains open to Kansas residents over the age of 21 with fewer than 24 transfer credit hours who have graduated from high school or have completed a GED.

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 student's prior coursework towards their degree of choice. Contact an academic adviser through the dean's office. See page 12.

Students transferring from a two-year college must complete at least 60 hours of four-year college work including 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 course numbering system on page 24 and requirements for graduation, page 28.

\*The Kansas Regents' Qualified Admissions Precollege Curriculum requirements can be found online at: [wichita.edu/admissions](http://wichita.edu/admissions).

\*\*See residency requirements defined on page 40.

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, students must update to a degree-bound major and meet the requirements for the intended program. Students must submit any additional transcripts before being updated to a degree-bound major.

**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 guests 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 nondegree 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 a High School Guest Admission Application form, including a nonrefundable \$30 application fee. The form must also include a signature from the student's high school counselor; and

3. Submit an official high school transcript. 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 in which students do not meet the 3.000 GPA requirement 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 Admission Application 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.

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 or visit [wichita.edu/advising](http://wichita.edu/advising).

The High School Guest Admission Application form can be found on the website: [wichita.edu/hsguest](http://wichita.edu/hsguest).

### Residency Requirements.

See Residency Defined, page 40.

### International Student Admission

Wichita State University demonstrates its commitment to international education through its International Education office. 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 proficiency requirements.** All international undergraduate students at Wichita State University are required to demonstrate proficiency in English before beginning full-time

### 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: [wichita.edu/admissions](http://wichita.edu/admissions).

#### 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 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 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.

Visit [admissions.wichita.edu/transcripts](http://admissions.wichita.edu/transcripts) for WSU's transcript and test policy.

Paper submissions should be sent to: Office of Undergraduate 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 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. \$65 nonrefundable application fee; and

3. Official copies—in English—of all transcripts from all secondary schools, colleges or universities attended.

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

**Other requirements—health insurance.** All international students are required to have medical insurance that meets university requirements, including support for repatriation and medical evacuation. Students are automatically charged for the Wichita State University insurance plan when they register for classes. They may apply for an insurance waiver if they provide proof of adequate insurance before they register for classes.

All new students are required to be tested for tuberculosis after arriving in Wichita and before registering for classes.

**Graduate students.** For more information, graduate students should consult the Graduate Catalog; the website (see below); or email: [gradinqu@wichita.edu](mailto: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  
Email: [international@wichita.edu](mailto:international@wichita.edu)  
Internet: [wichita.edu/international](http://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 appeals 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 an online reactivation form available at: [wichita.edu/registrar](http://wichita.edu/registrar). 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
- BA to MA in English

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 the Wichita State University 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](http://wichita.edu/gradschool).

## Transfer Credit

Official transcripts of all work done at other postsecondary institutions must be submitted to WSU, usually during the admission process. For transcripts to be official, they must be mailed from the college or university directly to WSU. Faxed transcripts will not be used to evaluate transfer credit.

**Acceptance:** Courses will be accepted as transfer credit if they were not remedial and were taken at colleges and universities that are accredited by

a regional accrediting body, such as the North Central Association of Colleges and Schools. International colleges and universities must be officially recognized by the Ministry of Education in their countries for students to receive transfer credit. Transfer courses are applied toward graduation requirements in accordance with the policies of the WSU college and program. Some programs do not accept transfer courses with a grade of *D*. Vocational or technical courses only transfer as *free electives*, and often do not count toward completion of a specific program at WSU. An official evaluation of how courses transfer is made after the student is admitted.

**Transfer Credit from Nonaccredited institutions:** Effective fall 2011, WSU will no longer accept and post transfer credit for students who have completed postsecondary coursework at institutions that are not accredited by one of the major regional accrediting bodies.

*Degree-bound students whose first semester of enrollment at WSU was prior to the fall 2011 semester will be eligible to have their credit posted as free electives according to the policy in effect before fall 2011 so long as their transcript from the nonaccredited institution was on file at WSU before August 1, 2011. Such coursework, however, will not be evaluated by departments for equivalencies or general education credit.*

**Records:** Accepted transfer courses are recorded on the student's academic record at Wichita State but do not appear in detail on the WSU transcript. Where necessary, transfer course titles are changed to agree with WSU course titles.

# Getting Started at Wichita State

For the vast majority of students at WSU, the goal of attending college is to earn a degree. As a student takes the first steps on their educational journey, it pays to keep that destination in sight. WSU is committed to helping students get there. WSU offers a set of programs, courses, resources and activities designed to help students reach their goals, and maximize their success and satisfaction. The three main components are orientation, academic advising, and Introduction to the University courses. Each of these is a valuable tool for navigating the transition to Wichita State University. Start right, in order to finish well.

It is important to remember that orientation and degree planning are not mere preludes to an education, but are crucial parts of the education. Students who take these things seriously are more likely to be successful, and are more likely to finish their degrees in a timely manner.

## Orientation

Whether starting a college career at WSU fresh out of high school, transferring from another institution, or returning to school after a long absence, WSU offers orientation experiences tailored to student needs. Orientation provides opportunities to get to know faculty members and fellow students, the resources and offices on campus, academic expectations, keys to college success, the history and traditions of WSU, and much more. Parents are invited to parallel programs during freshman orientations, so that they can learn more about how to help their children succeed in college.

*Orientation is required for all students new to WSU regardless of previously earned credit. Each semester, the Office of Admissions notifies new students of the various ways they can satisfy their orientation requirement.*

For the latest information visit the orientation website at [wichita.edu/orientation](http://wichita.edu/orientation), or phone (316) 978-3085.

## Academic Advising

Advising at WSU is an ongoing educational partnership between the student and professional/faculty advisers and advising staff. Academic advising promotes student success with the goal of helping students graduate in a timely manner. Academic advising is much more than just schedule building; it is a personalized way to explore options, get information and make good decisions. *Students new to the university are required to see an academic adviser before they will be allowed to register for classes for the first two semesters.* Certain colleges and departments have additional advising requirements as well.

Academic advisers form partnerships with students in the following ways:

### 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) nondegree-bound students who are enrolled in classes for purposes other than completing a degree; and (4) graduate students.

#### Degree-Bound—Major Decided

|          |  |           |  |
|----------|--|-----------|--|
| Business | W. Frank Barton School of Business<br>114 Clinton Hall<br>(316) WSU-3203<br><a href="http://wichita.edu/businessadvising">wichita.edu/businessadvising</a> | Fine Arts | College of Fine Arts<br>112 Jardine Hall<br>(316) WSU-3389<br><a href="http://wichita.edu/finearts">wichita.edu/finearts</a> |
|----------|--|-----------|--|

|           |   |                    |   |
|-----------|---|--------------------|---|
| Education | College of Education<br>107 Corbin Education Center<br>(316) WSU-3300<br><a href="http://wichita.edu/education">wichita.edu/education</a> | Health Professions | College of Health Professions<br>402 Ahlberg Hall<br>(316) WSU-3304<br><a href="http://wichita.edu/chp_advising">wichita.edu/chp_advising</a> |
|-----------|---|--------------------|---|

|             |  |                           |  |
|-------------|--|---------------------------|--|
| Engineering | College of Engineering<br>300 Wallace Hall<br>(316) WSU-3420<br><a href="http://wichita.edu/engineering">wichita.edu/engineering</a> | Liberal Arts and Sciences | LAS Advising Center<br>115 Grace Wilkie Hall<br>(316) WSU-3700<br><a href="http://wichita.edu/advising">wichita.edu/advising</a> |
|-------------|--|---------------------------|--|

#### Degree-Bound—Exploratory or Nondegree-Bound

LAS Advising Center  
115 Grace Wilkie Hall  
(316) WSU-3700  
[wichita.edu/advising](http://wichita.edu/advising)

#### Graduate Students

Graduate School  
107 Jardine Hall  
(316) WSU-3095  
[wichita.edu/gradschool](http://wichita.edu/gradschool)

- 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 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 show students how to access reliable and accurate sources for university policies and procedures in both print and electronic formats.

- Students are given access to various means of initiating contact with an academic adviser, including email, 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 help available for the student’s academic skill development.

## Student Success

The Office for Faculty Development and Student Success (OFDSS) creates and coordinates campus-wide initiatives that aim to help students stay in school, learn well, earn good grades, and graduate in a timely manner. OFDSS partners with admissions on orientation; coordinates WSU 101, Introduction to the University, courses; manages the GradesFirst academic early alert program, the Supplemental Instruction program, and a tutoring clearinghouse; and is involved in many other initiatives as well. Information about all of these programs, plus general tips and advice for college success, can be found at [wichita.edu/ofdss](http://wichita.edu/ofdss).

WSU 101, Introduction to the University, prepares new freshmen to succeed in college by

providing information and advice relating to career and degree planning, personal financial management, time management, study skills, test taking, campus involvement, personal wellness, relationships and other topics. Introduction to the University gives students opportunities to get to know fellow students and instructors. It provides a safe and supportive environment for students to reflect on their own interests, strengths and goals. It helps students establish good habits and form plans for success in college and beyond. Due to its unique delivery model, WSU 101 prepares students to succeed in all of the learning environments they will encounter in college: small and large classes, online, one-on-one and in teams. In addition to an instructor, each section is assigned a peer leader (an experienced WSU student who acts as a guide). Introduction to the University is highly recommended for all freshmen. Students who complete an Introduction to the University course have higher rates of graduation than students who do not take the course. For further information, see [wichita.edu/WSU101](http://wichita.edu/WSU101).

The Introduction to the University course is offered in several versions tailored to specific student needs and interests. Students who have not yet chosen a major and students in the College of Liberal Arts and Sciences should take WSUA 101. Students in the College of Education should take WSUD 101. Students in the College of Health Professions should take WSUH 101. Students who are members of the Emory Lindquist Honors Program may elect to take HNRS 101. (Students in the College of Business are required to take BADM 101 and 102, or BADM 301 if they are transfer students. Students in the College of Fine Arts should speak to an adviser about which Introduction to the University course they should take.)

The Returning Adults seminar, LASI 100A, is recommended for adults who have been out of school for a year or more. For additional information about LASI 100A, visit [wichita.edu/advising](http://wichita.edu/advising) or call the LAS Advising Center at (316) 978-3700.

**Supplemental Instruction.** WSU offers Supplemental instruction in traditionally difficult courses. Supplemental instruction leaders, who have had special training, lead free, drop-in 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. Contact an academic adviser and review the Schedule of Courses to identify course sections that offer supplemental instruction.

## Housing and Residence Life

On-campus housing is available for more than 1,000 students in Fairmount Towers, Brennan Halls, and Wheatshocker Apartments. Housing options include an honors floor, a fine arts floor, a health professions floor, an engineering floor, Shockers Scholars floor, 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, 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 about living on campus, room and meal plan options, application/contract questions, please contact Housing and Residence Life at (316) 978-3693, email: [housing.wsu@wichita.edu](mailto:housing.wsu@wichita.edu), or go the Housing and Residence Life website at [wichita.edu/housing](http://wichita.edu/housing). The 2013-2014 Room and Board rates will be posted on the website in January or February 2013.

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. This publication is available on the university's website for any given semester. 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 for a course or courses represents a financial commitment that the student is obligated to pay.**

Newly admitted, currently enrolled and former students not academically dismissed, are eligible for online registration. Some academic restrictions have been built into the system. Some restrictions cannot be overridden. College or program specific restrictions may be considered for removal by contacting the appropriate college or department and requesting an electronic override.

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 website at: [wichita.edu/registrar](http://wichita.edu/registrar).

Once a student has enrolled, classes may be changed online for a certain period of time that varies according to the start date and length of the course. After the online period has passed, students must process drop and/or add forms in-person with the appropriate approvals. Changes of sections also require such action. If these forms are not submitted, a grade of *F* could be recorded for failure to attend the class shown on the original enrollment records.

Cutoff deadlines for dropping with a refund also vary according to the start date and length of the course. See the Schedule of Courses for more information. Drops of classes with a grade of *W* (withdrawal) are subject to a time limit established by the registrar.

Students who find it necessary to completely withdraw from the university must drop each class.

# 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.

The requirements for Kansas residency for tuition purposes are defined on page 40 of this catalog.

## Financial Assistance

Wichita State offers financial assistance through scholarships, federal and state supported programs, and employment. Students interested in any type of financial assistance should contact the university's Office of Financial Aid, 203 Jardine Hall, or visit [wichita.edu/financialaid](http://wichita.edu/financialaid) to see what assistance is available for their specific needs. Most financial assistance is based on financial need, but some scholarships are awarded without consideration of financial need.

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

**Federal Grants and Loans.** Students may receive assistance through several federal programs: Supplemental Educational Opportunity Grants, Pell Grants, TEACH grants, Perkins Loans, subsidized and unsubsidized Stafford Loans, and parental loans for undergraduate students.

**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, or visit [wichita.edu/scholarships](http://wichita.edu/scholarships). 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 does not complete all the days in a payment period or a period of enrollment they were scheduled to complete.

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.

## 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:

*Note:* Tuition and fees are for the fall and spring semesters and the summer session. **Tuition and fees for 2013-2014 had not been established at the time of publication, but an increase is anticipated.** Published fees reflect the 2012-2013 rates.

|   | Resident  | Nonresident |
|---|-----------|-------------|
| <b>Undergraduate tuition</b>                    |           |             |
| Per credit hour                                 | \$ 173.50 | \$ 441.30   |
| <b>Graduate tuition</b>                         |           |             |
| Per credit hour                                 | \$ 234.30 | \$ 618.95   |
| <b>Student fee—graduate and undergraduate*</b>  |           |             |
| Per credit hour                                 | \$ 35.35  | \$ 35.35    |
| <b>University registration fee—all students</b> |           |             |
| Per semester                                    | \$ 17.00  | \$ 17.00    |
| <b>Facilities use fee—all students**</b>        |           |             |
| Per credit hour                                 | \$ 3.60   | \$ 3.60     |

\*The student fee is required of every student enrolled on the Wichita State University main campus, and classes held in

the City of Wichita, Wichita's contiguous industrial sites, the Wichita State University South and West Campuses, and the Downtown Center. Proceeds from the student fee are distributed to pay for the Educational Opportunity Fund, student union, athletics, Heskett Center, student health services, forensics, student government association, student publications, and other student activities.

\*\*The Facilities Use Fee will be assessed to all students at the rate of \$3.60 per credit hour, per semester and summer session, capping the charge at 15 credit hours (\$54.00). It will be refundable only during the period(s) when tuition is eligible for a 100 percent refund. After the 100 percent refund period, fees are not refundable. Parking 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.

## Workshop, Off-Campus, Internet, CATIA Workshops and Media Course Fees

On-campus credit workshops cost \$222.95 tuition and student fees, per credit hour. In addition, there is a \$17 registration fee per semester. A specific course fee of \$197.10 (undergraduate) or \$265.90 (graduate) per credit hour is assessed for off-campus regular enrollment, continuing education credit courses, Internet courses or workshops.

Noncredit workshops on campus include a facilities use fee (\$5 for workshops of seven or fewer consecutive days and \$10 for longer-term workshops). Noncredit workshops off campus will not include a facilities use fee unless students choose to have a vehicle on campus.

CATIA tuition for credit is \$600 for a one-hour workshop, and \$1,200 for a two-hour workshop. Noncredit CATIA workshops are \$400 and \$800 for one- and two-hour workshops, respectively. A \$20.00 per credit hour fee is assessed for each media course.

## Departmental or College Fees

Special departmental fees are charged as summarized below:

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.

### W. Frank Barton School of Business:

|   |  |
|---|--|
| Business Technology and Operations Fee .....                  | \$15/credit hr. for all courses within the Barton School of Business                   |
| Executive Masters of Business Administration (EMBA) .....     | \$38,000*/program includes tuition, textbooks, materials and other administrative fees |
| Semester Study Abroad .....                                   | \$100  |
| Masters of Business Administration (MBA) German Program ..... | \$500  |

\*Includes a \$500 nonrefundable deposit.

### College of Education:

|  |               |
|--|---------------|
| <b>Human Performance Studies (charges based on cost)</b> |               |
| Bowling .....  | \$50/semester |
| Bowling (HPS 201B) .....                                 | \$10/course   |



|                                       |  |
|---------------------------------------|--|
| CPR & First Aid Certification .....   | \$10/certification<br>(required by American Red Cross) |
| Horsemanship .....                    | \$135/semester   |
| Ice Skating .....                     | \$80/semester  |
| Pool/Billiards .....                  | \$25/semester  |
| Safety and Marksmanship.....          | \$125/semester   |
| Scuba Diving .....                    | \$60/semester  |
| Graduate transcript analysis fee..... | \$30/analysis<br>(first analysis is free)              |

### College of Engineering:

|  |   |
|--|---|
| Engineering equipment and<br>maintenance fee ..... | \$15/credit hr.<br>for all courses within the College<br>of Engineering |
|--|---|

### College of Fine Arts:

|                                       |  |
|---------------------------------------|--|
| Course fee .....                      | \$8/credit hr.<br>for all courses within the College<br>of Fine Arts |
| Practice Room Usage Fee.....          | \$50/year<br>(\$25 is a refundable key deposit)                      |
| Locker Rental Fee.....                | \$15/year  |
| Kodály Program Certification Fee..... | \$400/year<br>(both credit and noncredit classes)                    |

### College of Health Professions:

|                  |  |
|------------------|--|
| Course fee ..... | \$15/credit hr.<br>for all courses within the College<br>of Health Professions |
|------------------|--|

### Advanced Education in General Dentistry (AEGD)

|                       |   |
|-----------------------|---|
| Application Fee ..... | \$150/person  |
| Program Fee .....     | \$500/person<br>(Covers student liability insurance, scrubs,<br>lab coats, supplies & continuing education) |

### Communication Sciences and Disorders

|   |               |
|---|---------------|
| Masters of Communicative Sciences<br>and Disorders..... | \$50/semester |
| Doctorate of Audiology .....                            | \$50/semester |

### Dental Hygiene (DH)

|                                  |   |
|----------------------------------|---|
| DH Acceptance Fee* .....         | \$100/person  |
| DH Application Fee .....         | \$15/person   |
| DH—Board Review Course Fee ..... | \$125/person<br>approximate cost  |
| Student Equip./Supplies Fee..... | \$1,840/person<br>approximate—actual cost of materials is charged<br>(Student insurance cost is part of the equipment/<br>supplies fee) |

### Medical Laboratory Sciences (MLS)

|                           |              |
|---------------------------|--------------|
| MLS Acceptance Fee* ..... | \$100/person |
|---------------------------|--------------|

### School of Nursing

|  |                |
|--|----------------|
| Nursing Acceptance Fee* .....  | \$100/person   |
| Nursing Testing Fee .....  | Fall 12 Sp. 13 |
| Semester 5 per person.....   | \$130 \$130    |
| Semester 6 per person.....   | \$103 \$103    |
| Semester 7 per person.....   | \$103 \$103    |
| Semester 8 per person.....   | \$103 \$103    |
| Student Liability Insurance .....  | \$26           |
| Posting of 25 hours retroactive credit<br>for Associate Degree to BSN..... | \$50           |

### Accelerated Baccalaureate Nursing Program

|                                      |              |
|--------------------------------------|--------------|
| Nursing Testing Fee .....            | \$130/person |
| Accelerated Acceptance Fee* .....    | \$500/person |
| Resident Student Program Fee*        |              |
| per person/entire 15-month program.. | \$20,000     |
| Nonresident Student Program Fee*     |              |
| per person/entire 15-month program.. | \$35,000     |

### Physician Assistant (PA)

|                          |              |
|--------------------------|--------------|
| PA Acceptance Fee* ..... | \$200/person |
| PA Application Fee.....  | \$20/person  |

### Physical Therapy (PT)

|                          |                           |
|--------------------------|---------------------------|
| PT Acceptance Fee* ..... | \$100 per person/semester |
| PT Application Fee ..... | \$20 per person/semester  |

### Public Health Science

|  |                          |
|--|--------------------------|
| Public Health Science Application Fee:   |                          |
| Domestic .....   | \$10 per person/semester |
| International .....  | \$15 per person/semester |
| Reapplication .....  | \$5 per person/semester  |
| *Acceptance fees are due within 30 days after admission to a<br>program and are nonrefundable. They are applied toward the<br>first semester's tuition of the program. |                          |

### College of Liberal Arts and Sciences:

#### Biology

|   |             |
|---|-------------|
| 107, 210, 211, 220, 223, 330, 418, 419, 502,<br>527, 540, 578 ..... | \$50/course |
|---|-------------|

#### Chemistry Labs

|                               |          |
|-------------------------------|----------|
| 103, 211, 212, 531, 532 ..... | \$60/lab |
|-------------------------------|----------|

#### English Exams

|   |     |
|---|-----|
| English Composition Placement Exam .....                    | \$4 |
| Exit Exam for Validation of International<br>Transfer ..... | \$4 |

|  |                      |
|--|----------------------|
| Geology Field School and<br>Anthropology Field Trip..... | actual cost/semester |
|--|----------------------|

#### Math

|                                     |     |
|-------------------------------------|-----|
| College Algebra Placement Exam..... | \$4 |
|-------------------------------------|-----|

### Modern and Classical Languages and Literatures (MCLL)

|                                 |                 |
|---------------------------------|-----------------|
| CRE for Foreign Language.....   | \$15/credit hr. |
| Translation Certification ..... | \$30            |
| Puebla Summer Program .....     | actual cost     |

### Social Work Courses Field Practicum Fee

|                                   |             |
|-----------------------------------|-------------|
| 402, 404, 720, 721, 822, 823..... | \$15/course |
|-----------------------------------|-------------|

### Administrative Fees, Special Fees, Deposits and Waivers:

|   |              |
|---|--------------|
| Certain other fees are assessed as indicated below.                     |              |
| Undergraduate Admission Application<br>Fee—Initial Enrollment.....      | \$30/person  |
| Graduate Admission Application<br>or Reapplication Fee .....            | \$50/person  |
| Graduate Express Mailing Fee .....                                      | \$60/person  |
| Graduate Fee to Process Application<br>for Degree/Hooding Ceremony..... | \$15/app.    |
| Graduate School Thesis Fee .....  | \$40/person  |
| Graduate School Dissertation Fee.....                                   | \$40/person  |
| Intensive English Tuition Deposit.....                                  | \$100/person |
| Installment Payment Admin. Fee .....                                    | \$30/person  |

### International Graduate Student

|  |   |
|--|---|
| Application/Reapplication Fee.....                             | \$65/person   |
| International Undergraduate Student<br>Application Fee .....   | \$65/person   |
| International Undergraduate Student<br>Reapplication Fee ..... | \$50/person<br>(upon 4th request for readmission)                             |
| International EPE Testing Fee.....                             | \$75/person   |
| International TSE Testing Fee .....                            | \$75/person   |
| International Glacier Tax Prep. ....                           | \$2/person<br>(Federal Income Tax for International<br>Students and Scholars) |
| International Express Mail Fee.....                            | \$60/person   |
| Diploma Replacement Fee .....                                  | \$30/copy   |
| Diploma Cover Replacement Fee.....                             | \$5/copy  |
| Transcript/Certification Requests:                             |   |
| Transcript/Certification Fee .....                             | \$8/copy  |
| Transcript—Fax, USA .....                                      | \$5/transcript  |
| International FEDEX .....                                      | \$40/FEDEX  |
| Next Day Delivery, USA .....                                   | \$15/mailling   |
| Priority Mail, USA .....                                       | \$5/mailling  |
| Notarized Certified True Copies.....                           | \$2/page  |
| Same Day Service Fee—  |   |
| Registrar's Office .....                                       | \$10/document   |
| Copies of public documents                                     |   |

#### 1. Public records in print:

- Access to public records in print:  
There is no charge for requesting  
less than 30 minutes of staff time  
to obtain..... \$20/hour
- Copying..... \$0.10/page

#### 2. Public records kept in computer files:

- Access to public record(s) stored on  
computer files that can be accom-  
plished using retrieval software  
already available and without soft-  
ware modification(s): There is no  
charge for requests requiring less  
than 30 minutes of staff time to  
obtain..... \$50/hour
- 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

|                       |            |
|-----------------------|------------|
| Return check fee..... | \$30/check |
|-----------------------|------------|

#### Testing and credit by examination fees:

|  |                 |
|--|-----------------|
| LAS Cr. for Life Experience fee....                        | \$15/credit hr. |
| Credit by Examination and<br>Retroactive Credit fees ..... | \$15/credit hr. |
| Make-up Examination fee.....                               | \$8/test        |

### Library Fees:

#### Library Fine Schedule

|   |  |
|---|--|
| 4 Week Materials.....   | \$0.25/day<br>(\$10 maximum per item)* |
| *There is a five day grace period for four week materials.<br>On the sixth day, \$1.50 is applied to the account. |  |
| Periodicals .....   | \$0.50/day<br>(\$10 maximum per item)  |
| Reserve Fine (1, 3, 7-day check-outs) ...   | \$0.50/day<br>(\$10 maximum per item)  |

|                                      |   |
|--------------------------------------|---|
| Reserve Fine (Library use only)..... | \$0.60/hour<br>(\$10 maximum per item)    |
| Laptop Fine .....                    | \$.025/minute<br>(\$120 maximum)          |
| Recall Fine .....                    | \$1/day<br>(\$40 maximum per item)        |
| Textbook Fine .....                  | \$.010/minute<br>(\$100 maximum per item) |

If total fines remain under \$3 during a semester, the fines will be dropped at the end of that semester. If fines exceed \$25 during a semester, the library patron is eligible for a one-time only reduction in fines back to the \$25 level.

**Damaged Items**

Damage charges vary depending upon the cost needed to repair the item. Patrons are responsible for repair costs associated with items damaged while charged to their accounts. A minimum of \$3 will be charged for each damaged item. The cost of repairs will not exceed the replacement cost plus processing cost of the item.

**Lost Item Charges**

|                               |  |
|-------------------------------|--|
| Lost Item Processing Fee..... | \$15   |
| Lost Item Charges.....        | Replacement Cost*<br>plus a \$15.00 processing fee |

\*Replacement cost is determined through researching the title, author, edition, ISBN#, subject area or equipment costs from sources such as the following: Global Books in Print (www.globalbooksinprint.com), Amazon (www.amazon.com), Alibris (www.alibris.com), or Abe Books (www.abebooks.com). Patrons are allowed to submit their own replacement copies for approval. If approved, they will then only be responsible for the processing fee. Min. Lost Charge for Irreplaceable Item ..... \$265\*  
\*\$250.00 replacement fee plus a \$15.00 processing fee.

**Miscellaneous Charges**

|                                      |             |
|--------------------------------------|-------------|
| Printing and Photocopying            |             |
| Black and White Copies.....          | \$0.07/copy |
| Color Copies.....                    | \$0.75/copy |
| Microform Printing .....             | \$0.10/copy |
| Digital Images (Special Collections) |             |
| Stock Images.....                    | \$.5/image  |
| Newly Scanned Image .....            | \$.20 min.* |

\*Students receive first three images at no cost.

**Counseling and Testing Center**

**Counseling:**

|  |           |
|--|-----------|
| First Appointment.....   | no charge |
| Appointments after 1st Appointment<br>(Students and Faculty/Staff) ..... | \$.8/hour |
| Counseling No Show/Late Cancel Fee .....                                 | \$.5      |
| Psychological Testing No Show/<br>Late Cancel Fee .....                  | \$.15     |

Rates for all tests administered by the Counseling and Testing Center for students, faculty/staff and the community are available at the Center.

**Testing:**

|                             |                              |
|-----------------------------|------------------------------|
| ACT Prep Workshop.....      | \$.28/workshop               |
| ACT Math Prep Workshop..... | \$.23/workshop               |
| GRE Prep Workshop .....     | no charge                    |
| Make-up Exams.....          | \$.8/test                    |
| Distance Exam.....          | \$.25/test                   |
| Certification Exam.....     | \$.35/test<br>(0 to 4 hours) |

|                              |                                    |
|------------------------------|------------------------------------|
| Certification Exam.....      | \$.70/test<br>(4 to 8 hours)       |
| TEAS—Nursing or Dental ..... | \$.62/test                         |
| CLEP .....                   | \$.25/test                         |
| DSST .....                   | \$.28/test                         |
| Departmental Exams .....     | \$.15/credit hr.                   |
| CBASE .....                  | \$.22/one test section             |
| CBASE .....                  | \$.37/one section & writing        |
| CBASE .....                  | \$.37/two–three sections           |
| CBASE .....                  | \$.49/two–three sections & writing |
| CBASE .....                  | \$.63/all test sections            |
| Institutional ACT .....      | \$.60/test—group admin.            |
| Institutional ACT.....       | \$.125/test—individual admin.      |
| Institutional TOEFL .....    | \$.60/test                         |
| Miller Analogies Test .....  | \$.95/test                         |

**Career Services**

|  |            |
|--|------------|
| Current WSU Students.....                                    | no charge  |
| New Graduates (up to one year following<br>graduation) ..... | no charge  |
| WSU Faculty/Staff .....                                      | no charge  |
| Family Member of WSU Faculty/Staff..                         | \$.20/hour |
| WSU Alumni .....   | \$.20/hour |
| Community .....  | \$.40/hour |

**Career Testing**

|  |                                       |
|--|---------------------------------------|
| Campbell Interest and Skill Survey..           | \$.18/student<br>.....\$18/nonstudent |
| Strong Interest Inventory .....                | \$.18/student<br>.....\$18/nonstudent |
| Self-Directed Search.....                      | \$.18/student<br>.....\$18/nonstudent |
| VISTA Card Sort .....                          | no charge                             |
| Myers-Briggs Type Indicator.....               | \$.18/student<br>.....\$18/nonstudent |
| StrengthsFinder (On-Line Access Code)<br>..... | \$.18/student<br>.....\$18/nonstudent |

**Other Services**

|                                     |               |
|-------------------------------------|---------------|
| Credentials (education alumni)..... | \$.5/ mailing |
|-------------------------------------|---------------|

**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, summer orientation sessions, academic transcripts, registration fees, etc.) not explicitly identified herein will be priced at an amount that approximates actual costs.

**Student Health Services Fees**

Certain fees for laboratory tests, inoculations, prescriptions, X-rays, physical examinations, and other procedures are charged to users of Student Health Services. These fees reflect direct charges to the university and every attempt is made to keep them below market cost. A list of specific charges is available at the Student Health Center.

**Housing and Residence Life Fees**

Housing rates at Wichita State University vary with the choice of facility and meal plan.

For more information about living on campus, room and meal plan options, application/contract questions, please contact Housing and Residence Life at (316) 978-3693, email: housing.wsu@wichita.edu, or go the Housing and Residence Life website at [wichita.edu/housing](http://wichita.edu/housing). The 2013-2014 room and board rates will be posted on the website in January or February 2013.

**Payment**

Tuition and fees, including any lab fees, are required to be paid in full for any course in which a student is still enrolled after the deadline for dropping that course with a 100 percent refund.

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 nonrefundable 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. A faculty member, a representative of the vice president for campus life and university relations, a representative of the director of financial operations, a representative of the general counsel's office, and the director of the office for faculty development and student success constitute the board of appeals for students who believe their residency status has been incorrectly assessed. The decision of this committee is final. Forms to initiate this process are available in the registrar's office, 102 Jardine Hall. The form can also be downloaded online by going to [wichita.edu/registrar](http://wichita.edu/registrar) and clicking on the link called *Residency*. A link to the form is located in the *Appeals* section of the page.

## Late Fees

All accounts with a balance greater than \$150 from tuition, enrollment related fees, or housing charges assessed in the current term will incur a \$100 late fee on the first business day after the published payment due date. The payment due date for tuition and enrollment related fees will coincide with the financial aid office consensus date, the registrar's office late enrollment date, and the financial operations office 100 percent refund date. The payment due date for housing charges is stated in the housing contract.

All delinquent accounts with a balance due greater than \$150 from tuition, enrollment related fees, or housing charges will incur a late payment fee of \$100 ninety calendar days into the current term.

## Unpaid Fees

Students who leave Wichita State University without meeting their financial obligation to the university will have their records impounded by the registrar. Their transcript or diploma will not be issued unless their account is cleared, and they may not enroll for a new term unless all fees are paid.

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

## Drop/Add Fee Policy

Students who drop credits and do not add credits will be charged the proportional percentage based on the week they drop the credits. The percentages are published in the Schedule of Courses.

Students who drop and add credits will not be required to pay additional tuition/fees if the following conditions are met:

1. The drop and add occurs in one transaction; and
2. There are an equal number of credit hours added as are being dropped, and the credit hours have an equivalent charge.
  - A course that has been added in accordance with parts 1 and 2, and is subsequently dropped, will retain the same refund percentage as the original course dropped. Students who drop the added course that met the above conditions will have an adjustment made to their account. (Example: A student drops course A and adds course B. Course A would have had a 0 percent refund; however, because conditions have been met, student receives a 100 percent refund for course A. Student then decides to drop course B. An adjustment is made to the account reversing the 100 percent refund received for course A.)

Refunds of tuition and fees will be granted for withdrawals in accordance with the dates and regulations published in the Schedule of Courses for a given semester. Requests for refunds which occur after the close of the regular refund period must be submitted on the Refund Waiver

form and presented to the Office of Financial Operations and Business Technology, 201 Jardine Hall.

## Refund Policy—Complete and Partial Withdrawal

Complete withdrawal from the university is accomplished when a student officially drops all classes in which they are enrolled.

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.

The *first class day* refers to the first day of the part-of-term as defined by the department and registrar's office; thereafter, the *day* refers to the business day. The length of the *part-of-term* determines the refund, not the start and end date of the course. When a course's part-of-term length falls between two of the above categories, then the shorter one is used. (Example: If course A part-of-term begins Monday and the actual course meets on Thursday, the refund business day begins with Monday, not Thursday. For an exception to this policy, student must complete the Petition for Exception to Tuition Refund Policy for Dropping form.)

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 one 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 nonmilitary 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 recipients are 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 Kansas Board of Regents policy, students who are at least 60 years of age may audit (no-credit) regular lecture or certain group activity courses without payment of tuition when there is space available and for which they meet the prerequisites. Senior auditors must, however, pay any applicable facilities use fees, workshop fees, and the lab/special course fees. *Prerequisites include admission to the graduate school for graduate*

*courses, and program admission for courses in which program admission is required of all students.*

Senior citizens must present a Medicare card or driver's license to validate age. A special senior citizen registration is held after the first day of classes (see Schedule of Courses).

Senior citizens desiring college credit or the assurance of space in specific courses may enroll and pay full fees during regular registration.

Senior citizens who have not enrolled at WSU before must complete an application for admission and pay the application fee before registering. Application fees are \$30 for undergraduate and \$50 for graduate students.

Senior citizens who want to participate in one or more of the HPS 152 sections, have three options:

1. Purchase a membership in the Center for Physical Activity and Aging (CPAA), \$50 for membership and \$20 for parking per student. Enrollment through the registrar's office is not necessary.

2. Those who want more complete access to the Heskett Center, and Ablah Library privileges, may join CPAA and enroll through the registrar's office with audit status in a 1 credit hour section. Costs include a \$50 membership fee, \$21 Heskett Center fee, and \$3.60 facilities use fee, plus other fees that may apply.

3. Senior citizens may enroll in one class for full credit at a total cost of the current tuition, student fees, registration fee, and facilities use fee.

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

# Academics

## Emory Lindquist Honors Program

The Emory Lindquist Honors Program is an opportunity for WSU's best students to enrich their educations, pursue academic, cultural and social interests, and work closely with other highly motivated students and faculty members. At the same time, honors program graduates earn a credential that is well respected by graduate schools, professional schools and employers. The honors program aims to help fulfill WSU's mission as an urban serving research university by equipping and motivating strong students to learn about and contribute solutions to local, national and international problems. Writing, leadership, service, cross-disciplinary thinking and research skills are emphasized. All Emory Lindquist Honors Program students receive priority enrollment. For more information, visit [wichita.edu/elhp](http://wichita.edu/elhp), email: [honors@wichita.edu](mailto:honors@wichita.edu), or phone (316) 978-3375.

### Admission Requirements

- For students entering WSU with fewer than 24 college credit hours: a minimum high school GPA of 3.700, or a composite ACT score of 27 or better.
- For students entering WSU with 24 or more hours of college credit: a minimum college GPA of 3.500.

To apply to the Emory Lindquist Honors Program, submit the application form found at [wichita.edu/elhp](http://wichita.edu/elhp). Students who do not meet the ordinary admission requirements may petition the director of honors for special admission.

### Graduation Requirements

- Lower division: 12 credit hours numbered 299 or lower, in either HNRS or H courses;
- Upper division: 12 credit hours numbered 300 or higher, in either HNRS or H courses, *including both* HNRS 385, Advanced Academic Writing, and HNRS 485, Honors Research Seminar; and
- Maintain a 3.000 overall WSU GPA.

Students may also complete the upper division of the honors program by completing the departmental honors track in their major, if one has been defined by the relevant department. Consult the director of honors and the major department for further information.

Students who transfer to WSU having completed all or part of an honors program at a community college should speak to the director of honors about having those credits counted toward the lower division requirements of the Emory Lindquist Honors Program.

### Graduation Honors

Students who complete the honors program graduation requirements receive the notation *Honors Program Graduate* on their transcripts and are specially recognized at commencement.

Students who complete a departmental honors track in their major but not the other requirements of the honors program earn the transcript notation *Departmental Honors*.

### Normal Progress

Students should take at least 6 hours in H or HNRS courses each year in order to graduate within four years with the honors notation on their transcripts. Note that many of the requirements of the general education program can be fulfilled by taking H and HNRS courses.

### Probation and Dismissal

Students whose overall WSU GPA drops below 3.000 or who do not take any honors courses for a period of one year, will be placed on probation and will be required to meet with the director of honors. At the end of either the fall or spring semester immediately following the semester in which the student is put on probation (whichever comes first), the case will be reviewed by the director who will decide to either return the student to good standing or dismiss the student from the honors program. Students may also be dismissed from the honors program at the discretion of the director of honors for violations of principles of academic integrity or other behavioral offenses. Students may appeal dismissals from the program to the honors committee.

### Honors Living-Learning Community

Entering freshmen who are members of the honors program may apply to live on the honors floor in the Fairmount Towers dormitory. Students who live on the honors living-learning floor:

- take 6 credit hours each semester from a prescribed list of honors courses, plus HNRS 101 in their first semester;
- participate in the social, cultural, academic and service programs offered; and
- abide by the rules set by housing and residence life.

The Honors Living-Learning Community is designed to promote close interactions among honors students and to create an environment that maximizes learning, social development and personal growth.

### Honors Curriculum

In honors courses, students work closely with faculty and other talented students. Classes are small (normally capped at 15), many are interdisciplinary in their topics, and all emphasize the development of knowledge as well as skills in writing, speaking, library or laboratory research methods. Many courses develop skills in teamwork and leadership. The majority of HNRS and H courses satisfy the requirements of the WSU general education program. Students are encouraged to take courses that will challenge them academically and personally.

**Honors Option.** Students may take regular classes for honors credit with the permission of the course instructor and the honors program. Generally such honors option arrangements involve doing additional or enriched work connected with the course. Specific arrangements are worked out between the student and the instructor in consultation with the director of honors. (Examples include, but are not limited to, more in-depth research and writing assignments, presenting additional material to the class, public outreach, and service projects.) If the student completes the additional requirements, the instructor notifies the director of honors, who then has the registrar update the student's transcript to reflect the fact that the course earned credit toward completion of the honors program. There is no penalty if the student does not complete the additional work: a nonhonors grade is earned as determined by the regular work submitted in the course.

### Lower-Division Courses

**HNRS 101. Introduction to the University (1-3).** Designed especially for first-year students, with the goal of preparing students to succeed in college, including graduating in a timely fashion. Provides students with information about: college expectations; academic major, career and life planning; study skills; teaching and learning styles; respecting diversity of thought and culture; critical thinking; leadership training; campus resources; university policies and procedures; personal finances; health and fitness; and the benefits of engagement in student organizations. Students are introduced to faculty and staff from across the campus, and create an individualized graduation plan through a process of developmental advising.

>**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 106. Seminar I: Social and Behavioral Sciences (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.

### Upper-Division Courses

HNRS 300. **Introduction to the University for Transfer Students (1–2).** Designed especially for students who have recently transferred to WSU from another institution, with the goal of preparing students to succeed, including graduating in a timely fashion. Provides students with information about: expectations of WSU professors; academic major, career and life planning; study skills; teaching and learning styles; respecting diversity of thought and culture; critical thinking; leadership training; campus resources; university policies and procedures; personal finances; health and fitness; and the benefits of engagement in student organizations. Students are introduced to faculty and staff from across the campus, and create an individualized graduation plan through a process of developmental advising.

>HNRS 304. **Seminar III: Fine Arts (3–4).** *General education issues and perspectives course.* Topics vary. Replaces HNRS 204. Prerequisites: HNRS 104 and 150 and 12 additional credit hours in any subject, or permission of honors director.

>HNRS 305. **Seminar III: Humanities (3–4).** *General education issues and perspectives course.* Topics vary. Replaces HNRS 205. Prerequisites: HNRS 105 and 151 and 12 additional credit hours in any subject, or permission of honors director.

>HNRS 306. **Seminar III: Social and Behavioral Sciences (3–4).** *General education issues and perspectives course.* Topics vary. Replaces HNRS 206. Prerequisites: HNRS 106 and 152 and 12 additional credit hours in any subject, or permission of honors director.

>HNRS 307. **Seminar III: Mathematics and Natural Sciences (3–5).** 1–3R; 1–2L. *General education issues and perspectives course.* Topics vary. Replaces HNRS 207. Prerequisites: HNRS 107 and 153 and 12 additional credit hours in any subject, or permission of honors director.

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

HNRS 385. **Advanced Academic Writing (3).** Course goal is to make honors students excellent academic writers. Going well beyond ENGL 101 and 102, attention is paid to topic selection, thesis construction and refinement, the use of supporting evidence, the evaluation of sources, organizing an argument, appropriate diction, and the conventions of various forms of academic writing (from bibliographies and exam answers to research papers and honors theses). Students develop their grammatical competence and hone their abilities to express complex ideas clearly, concisely and precisely. A heavy emphasis is placed on learning by doing, including intense feedback and revision processes.

HNRS 398. **Travel Seminar (1–4).** Interdisciplinary travel seminar which allows a student travelling abroad to gain credit for the study of culture, art, literature, architecture, political, social, scientific and economic conditions while visiting historic places of interest. Students may enroll under the direction of the director of honors, a faculty member in any department, or as part of a travel experience organized through the honors program.

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

HNRS 404. **Seminar in Fine Arts (3–4).** Topics vary. Replaces HNRS 450. Prerequisite: HNRS 304 or permission of honors director.

HNRS 405. **Seminar in Humanities (3–4).** Topics vary. Replaces HNRS 420. Prerequisite: HNRS 305 or permission of honors director.

>HNRS 406. **Seminar in Social and Behavioral Sciences (3–4).** *General education issues and perspectives course.* Topics vary. Replaces HNRS 430. Prerequisite: HNRS 306 or permission of honors director.

>HNRS 407. **Seminar in Mathematics and Natural Sciences (3–5).** *General education issues and perspectives course.* Topics vary. Replaces HNRS 440. Prerequisite: HNRS 307 or permission of honors director.

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

HNRS 481. **Cooperative Education (1–4).** Complements and enhances the student's academic program by providing an opportunity to apply and acquire knowledge in a workplace environment. Offered Cr/NCr only. Prerequisite: consent of the honors program.

HNRS 481N. **Cooperative Education: Internship (1–4).** Complements and enhances the student's academic program by providing an opportunity to apply and acquire knowledge in a workplace environment as an intern. Offered Cr/NCr only. Prerequisite: consent of the honors program.

HNRS 485. **Honors Research Seminar (3–4).** Students majoring in various disciplines meet together one hour per week to discuss best practices in academic research, differences in research expectations in different subject areas, the research process (grant writing to publication), research ethics, project management, and other issues related to academic research. Guest lecturers from the libraries and various academic disciplines teach students high-level skills needed for successful research. Each student is responsible for finding a faculty member on campus to supervise them on a research project during the semester. One-third of the grade is determined by participation in the class, including written assignments, presentations to the class and other work. The remainder of the grade is based on the research project completed. This course is meant to supplement, not replace, the research methods course found in many disciplines. Students who complete this course have an excellent grounding in the fundamentals of academic research, exposure to research practices in a variety of disciplines, and experience conducting independent research. Students are therefore very well prepared for graduate school and/or careers that involve research.

### CAPP Degree Evaluation

The Curriculum, Advising and Program Planning (CAPP) tool, also called degree evaluation, is a web-based advising tool used by students and advisers to track progress toward graduation. The degree evaluation sorts a student's courses into different categories based on their chosen major(s)/minor(s) and indicates which degree requirements have been met and which remain to be completed before graduation.

Students who are *undecided* and students who are considering changing their majors can run a *What-if Analysis* to see how their courses would be applied toward possible degrees. While the degree evaluation does not replace advisers, it

allows students and advisers more time to discuss their total development, including career and life planning. Advising includes helping students meet their full potential, technically, professionally and personally.

Degree evaluation tips:

- Degree evaluations are not considered official university documents and do not replace the official university transcript;
- Verification of degree requirements must go through a faculty or academic adviser;
- Students should contact their adviser if they have any questions regarding their degree evaluation.

### Certificate and Residency Programs

Programs are available at the undergraduate, graduate, and residency 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. 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. Programs are reviewed by the faculty on a three-year rotation. Many of these programs exist for limited time periods depending on their demand. Programs are further described in the various departmental sections and in the list below.

#### Undergraduate Certificates Offered:

*College of Health Professions:*  
Signing Exact English

*Fairmount College of Liberal Arts*

Asian Studies  
Community Psychology  
Film Studies  
Great Plains Studies  
Medieval & Renaissance Studies  
Spanish for the Professions  
Strategic Communication

#### Graduate Certificates Offered:

*Barton School of Business:*

Entrepreneurship & Innovation  
Enterprise Sys. & Supply Chain Mgmt.

*College of Education:*

Child Play Therapy  
Coaching  
Educational Technology  
Engineering Education  
Functional Aging  
Literacy  
National Board for Professional Teaching Standards

*College of Engineering:*

Advanced Composite Materials  
Engineering Education  
Enterprise Sys. & Supply Chain Mgmt.  
Foundations of Six Sigma and Quality Improvement

Lean Systems  
System Engineering and Management

*College of Health Professions:*  
Public Health

*Fairmount College of Liberal Arts:*  
Applied Communication  
City and County Management  
Economic Development  
Great Plains Studies  
Nonprofit Management  
Public Finance

*Post Graduate Residency Program:*  
*College of Health Professions:*  
Advanced Education General Dentistry

## 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 Office of Cooperative Education and Work-Based Learning, 223 Grace Wilkie Hall, or call (316) 978-3688. Students may register online. Students attend a professional practice workshop prior to meeting with the appropriate college coordinator. For additional information and registration, check: [wichita.edu/coop](http://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 at: [wichita.edu/coop](http://wichita.edu/coop).

## Global Learning

Courses so identified incorporate global learning, which means WSU students have the opportunity to learn collaboratively with students, professors and experts at overseas universities, institutions and businesses via Internet resources such as videoconferencing, threaded discussions, blogs and chat sessions. The focus of such activities is on the development of intercultural communication and collaboration competence. The Third Place Learning environment (<http://thirdplacelearning.ning.com/>) and the Perspective Sharing Perspective Taking (PSPT) online role-play simulation (<http://perspectives-simulator.com/>) are used in some of the global learning courses. These courses help prepare students to live in an increasingly interconnected, diverse and interdependent world. For more information about global learning, see <http://gl.wichita.edu/> or contact Glyn Rimmington by calling (316) 978-6140 or email: [glyn.rimmington@wichita.edu](mailto:glyn.rimmington@wichita.edu).

## 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

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 exchange programs.

WSU students who wish to study abroad can find a variety of study abroad programs in the Study Abroad office on the second floor of the James Sutherland Garvey International Center.

The university offers exchange programs in about 15 countries. Several WSU departments occasionally offer courses in other countries and publicize them appropriately. The university is a member of the International Student Exchange Program (ISEP). Students may also use the National Student Exchange program described above to participate in overseas study programs sponsored by those American 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.

**Spanish Program in Puebla, Mexico.** The department of modern and classical languages and literatures offers a faculty-led 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)

Residents of specified states who enroll in selected majors at WSU are eligible to pay just 150 percent of in-state tuition instead of paying out-of-state tuition rates. This is a tuition discounting program, not a scholarship.

In Kansas, all students participating in the Midwest Student Exchange Program:

1. Must complete the precollege curriculum prescribed by the Board of Regents, with a minimum grade point average of 2.500 on a 4.000 scale, which includes four units of English and math and three units of social sciences and natural sciences; and
2. Must earn a composite American College Testing program (ACT) score of not less than 21 points or a SAT-1 recentered score of not less than 990 points; and
3. Must enroll as a full-time student in an eligible major, and make acceptable progress toward the degree as verified by the department chair; and
4. Must be a resident of Illinois, Indiana, Michigan, Missouri, Minnesota, Nebraska, North Dakota or Wisconsin.

If a student satisfies these criteria, as verified by an eight-semester high school transcript submitted to WSU, they will be sent an MSEP agreement. (This process begins approximately two months before the start of the semester; fee bills will reflect MSEP tuition rates only after the agreement is signed and returned. Note that the MSEP agreement at WSU requires students to live on campus for the first two years.)

See [wichita.edu/msep](http://wichita.edu/msep) for the most up-to-date list of eligible majors.

For additional information, email William.Vanderburgh@wichita.edu, or call (316) 978-3379.

### 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 page 14.)

#### High School Students

High school students who have completed their sophomore year may enroll in WSU classes as

guest students and earn college credit for those courses until they graduate from high school (see page 9). 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 camp is based in southern Colorado in the Wet and San Juan 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.

### WSU Complete—Adult Degree Completion Program

Started college, but life got in the way? WSU Complete adult degree completion program at Wichita State allows working adults to complete their degrees through a combination of convenient classes and online offerings. The degree programs are offered evenings and weekends at Wichita State's West Campus. The WSU Complete degree completion program allows a person to complete a degree in criminal justice, business administration or general studies through eight-week courses so they can work and be eligible for full-time student financial aid options.

For more information call (316) 978-8325 or visit: [wichita.edu/wsucumplete](http://wichita.edu/wsucumplete)

### Academic Resources

#### University Libraries

University Libraries comprises Ablah Library, the main library; the McKinley Chemistry Library; and the Thurlow Lieurance Memorial Music Library located in the Music and Languages Innovation Center (MALIC). 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, over 180 electronic databases and 55,000 e-books. 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, equipped seminar rooms and a coffee bar. Over 180 PC and Mac workstations 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. Twenty-four laptops are available for in-library use. Students have access to a wireless network throughout the building. Other facilities include 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 technical help desk personnel are available to help library users locate information and use the equipment, facilities and campus networking services. Interlibrary Loan provides access to materials that are not owned by the library by locating and borrowing them from other institutions.

Special Collections houses the university archives, rare books, historical Kansas maps, photographs and a growing manuscript collection of more than 700,000 documents, some 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' website at [libraries.wichita.edu](http://libraries.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](http://wichita.edu/ucats).

### Shocker Technical Assistance Center (STAC)

STAC, formerly known as Helpdesk, is now housed in Ablah Library. STAC provides technical support to all students, faculty and staff of Wichita State University. More details about STAC and its services are available online at: [wichita.edu/helpdesk](http://wichita.edu/helpdesk). The phone number for STAC is 978-HELP (4357).

|                   | STAC Hours:       |
|-------------------|-------------------|
| Monday–Thursday   | 8 a.m.–10:30 p.m. |
| Friday            | 8 a.m.–7:00 p.m.  |
| Saturday & Sunday | 1 p.m.–7:00 p.m.  |

### Open Student Computer Labs

UCATS maintains an open computer lab in Jabara Hall, room 120. This lab is 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 email support, Internet use and class project assistance.

|                              |                |
|------------------------------|----------------|
| <i>Jabara Hall, room 120</i> | <i>Hours:</i>  |
| 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.

### Email (@wichita.edu)

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

### myWSU

The *myWSU* portal is a website 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, go to: [myWSU.wichita.edu](http://myWSU.wichita.edu), and click on the *New to my WSU?* link.

### 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 a flexible learning space 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.

### KMUW

KMUW 89.1 is a listener-supported public radio station consistently ranked as one of the top 30 noncommercial stations in the nation.\* KMUW is licensed to Wichita State University and operates at 100,000 watts with a schedule of local, national and international news, and a unique blend of music and entertainment. In addition to its traditional broadcast service, KMUW maintains a full-service website with local news, online streaming of its signal and archive access to its local music programs. KMUW supports local arts and culture in the community through partnerships, promotion and sponsorships. KMUW also produces seven music programs: Crossroads, Global Village, New Settlers, Straight No Chaser, Strange Currency, Night Train and Soulsations.

\*(SOURCE: based on audience data © Arbitron and RRC, 2002-2012)

### WSU-TV Cable Television

Wichita State University operates WSU-TV, which is carried on more than 20 cable television systems in the Wichita area. National programming 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 student newscast and occasional specials of university events.

### Language Labs

The Savaiano-Cress Language Laboratories offer a variety of media services to foreign-language students. Audio, video and computer equipment are available to students and faculty alike, with the goal of enhancing and expanding the 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: MATH 007, Arithmetic; 011, Beginning Algebra; 012, Intermediate Algebra; 111, College Algebra; 112, Precalculus Mathematics; 123, College Trigonometry; 144, Business Calculus; 242, Calculus I; and STAT 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 website, [wichita.edu/mathlab](http://wichita.edu/mathlab).

### Supplemental Instruction

SI is a proven program that helps students better understand course content and therefore improve their grades. Selected traditionally difficult courses are assigned a peer leader who leads weekly, free, drop-in study sessions. SI works. Students who attend SI typically earn higher grades than those who do not. The Schedule of Courses identifies which sections have SI attached to them.

### GradesFirst–Academic Early Alert

WSU cares about student success. For this reason, WSU has implemented an academic early alert system. Under this system, called GradesFirst, instructors provide feedback on students who appear to be struggling early in the semester, and WSU staff members reach out to the students to provide any assistance that may be needed to help get them back on track academically. Students who are contacted by GradesFirst advisers are encouraged to take full advantage of the help offered.

### Tutoring

Many departments on campus offer tutoring services that can help students master course material and earn better grades. The Office for Faculty Development and Student Success hosts a tutoring clearinghouse, [wichita.edu/tutoring](http://wichita.edu/tutoring), which students can use to find available academic helping resources. When no such resources already exist, students can use the same website to request a tutor. Students interested in being paid to be tutors can also apply there.

### 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 11 a.m.–7 p.m. Monday through Thursday and 11 a.m.–3 p.m. on Friday. It opens the second week of classes and closes at the end of the last day of classes each semester. It is not open on study day, during finals or on holidays.

## Definitions; Grading

### 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.*

### Credit Hour Defined

A *credit hour* is a measure of graduate or undergraduate academic work represented in intended learning outcomes and verified by evidence of student achievement that reasonably approximates not less than one hour of classroom or direct faculty instruction and a minimum of two hours of out-of-class student work for each week of instructional time for approximately 15 weeks for one semester, or an equivalent amount of work over a different amount of time. A class hour at Wichita State University is typically 50 minutes.

### Course Numbering System

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 *for upper-division credit* if they satisfy the course prerequisites given in the Wichita State University Undergraduate 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. All students in these courses are expected to perform at the level of graduate students (Graduate I students—students who ordinarily have not accumulated more than

30 hours in a graduate program). Students receive graduate credit if the student was admitted to the Graduate School prior to enrollment; undergraduate students receive undergraduate credit unless the student was preapproved to earn graduate credit for that specific course under the senior rule policy, or was preapproved for graduate credit for that specific course following the student's admission to a dual/accelerated bachelor's to master's program.

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 section called *Graduate Credit for Seniors* on page 26 for special conditions under which seniors may be admitted to graduate courses.)

### Audit Credit

Students are permitted to attend credit courses on a noncredit 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.

### 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 Catalogs.

If students withdraw from a *Cr/NCr* course before the end of the 10th 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 10th week of a semester (fifth week of the eight-week summer session), they receive a grade of *NCr*, 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 29.

### Credit by Examination

Undergraduate course credit may be obtained by examination. The credit by exam program at Wichita State University is designed to enable those who have achieved college-level education through independent study, correspondence, television instruction, past experience, advanced high school classes or other traditional or non-traditional means to demonstrate their level of achievement.

No graduate course credit is available 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 website, [wichita.edu/counselingtesting](http://wichita.edu/counselingtesting). Students should check with their academic advisers 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 website 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 by the tests listed. 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. Re-examinations shall be permitted only with the consent of the faculty when re-examination 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* (excellent), *B* (good), *C* (satisfactory), *D* (unsatisfactory), *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.**

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

|           |         |           |         |
|-----------|---------|-----------|---------|
| <i>A</i>  | = 4.000 | <i>C</i>  | = 2.000 |
| <i>A-</i> | = 3.700 | <i>C-</i> | = 1.700 |
| <i>B+</i> | = 3.300 | <i>D+</i> | = 1.300 |
| <i>B</i>  | = 3.000 | <i>D</i>  | = 1.000 |
| <i>B-</i> | = 2.700 | <i>D-</i> | = 0.700 |
| <i>C+</i> | = 2.300 | <i>F</i>  | = 0     |

*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.** An incomplete is a temporary grade assigned when the faculty member grants a student an extension of time to complete the coursework. This extension of time may not exceed one calendar year from the end of the original semester. It is used in exceptional cases where a student is unable to complete coursework due to circumstances beyond his or her control. The student must have successfully completed a majority of the work. Credit is postponed and the course is not included in the student's grade point average until a permanent letter grade is assigned.

The following conditions govern incompletes:

1. When an incomplete grade is assigned, the faculty member may assign a default grade, other than the *I* grade. If the coursework is not satisfactorily completed by the extension date, the *I* will revert to the default grade submitted by the faculty member; if the faculty member does not assign a default grade, the *I* will revert to an *F*. When the student completes the work by the extension date, the faculty member must submit a change of grade form to assign an appropriate grade.

2. Subsequent enrollment in the course beyond the extension date will be governed by the university repeat policy.

3. When students receive a grade of incomplete, they are automatically informed of the university policies and procedures governing incompletes, by the registrar's office.

**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 *TCrE* is used for Advanced Placement (AP) or International Baccalaureate (IB) credit, for College-Level Examination Program (CLEP) credit, for DSST exams, for course credit awarded on the basis of the ACT or SAT exams, for credit by departmental examination and for credit by credentials (military

and similar background). Credit given; no credit points. See Credit by Examination, page 24.

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

**Grading Status.** 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.

**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*, *IP*, *Cr*, *NCr*, *S*, *U* and *CrE* are always excluded from grade point average computations. Four GPAs, if applicable, appear on a transcript: Semester GPA, Total WSU GPA, Transfer GPA and Overall GPA. GPAs are calculated and applied to three decimal places (truncated), although only two decimal places print on the transcript. A degree grade point average is frozen at the time of graduation.

**Z Hours.** Any hours where the grade is preceded by a *Z* are excluded from GPA calculations, from attempted hours and from earned hours. *Z* hours denote remedial courses, transfer courses that WSU does not accept, or are the result of WSU's repeat policy.

**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*, *I*, *IP*, *Cr*, *NCr*, *S* and *U* 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.

**Course Pending Completion.** An *IP* (in progress) grade is temporarily recorded when a course does not have to be completed by the end of the semester of enrollment. The grade submitted when the course has been completed replaces all *IP* grades for that course. This applies to courses such as Special Projects, Special Topics, Research and Thesis, as specified by the departments.

**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. Any course may be repeated. No course may be attempted more than three times. For this policy, an audit does not count as an attempt.

2. Any grade received at completion of a repeated class at WSU will automatically replace up to two previous grade(s) received

for that course in computation of the student's cumulative grade point average.

3. Grades received in courses taken at another institution may not be used to replace grades in courses taken at WSU. If a student repeats a course at another institution, the WSU grade will be averaged into the GPA.

4. The department offering a course can approve an exception to the limit of three attempts. If such an exception is given, only the first two grades for the course will be excluded from the GPA. All other grades received for that course will be averaged into the GPA.

5. Courses repeated prior to fall 2013 are subject to the repeat policy in effect during that catalog year.

6. Students may not use a repeat taken after graduation to amend their GPA or honors as determined at the time of graduation.

Repeated courses are identified on the transcript by an extra letter after the grade as follows:

- I included in GPA;
- E excluded from GPA; and
- A averaged in GPA but not counted in earned hours.

## 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.

## 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 midterm grades, are available electronically to students and their academic advisers the 10th 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 graduation but below this level for one semester may receive a letter from the dean of their college warning of the consequences of continued substandard performance. Such warnings do not appear on a student's transcript.

**Student Alert System.** Students may also receive email alerts from their advisers or instructors if they are not performing satisfactorily in class.

### Final Grade Reports

At the end of each semester, students may access and print their final grades through the *myWSU* portal option on the university website: [wichita.edu](http://wichita.edu).

### Academic Recognition

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

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

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

The list of such students will be published each semester. See page 27 for information about degrees conferred with academic distinction.

### Departmental Honors

Outstanding students may pursue departmental honors in their major field of study by completing

the departmental honors track specified by their major department. (Students in field majors or double majors should consult with their department and the honors director to develop an individually-tailored honors track.) To enroll as a candidate for departmental honors, a student must have junior standing and a cumulative grade point average of 3.250 (higher if department requirements so specify).

Departmental honors tracks consist of at least 12 hours of upper-division coursework, including a senior thesis, senior project, senior recital, or equivalent capstone experience. Each department will specify requirements for satisfactory completion of the honors track, but for all departments a minimum grade point average of 3.500 for work in the honors track is required.

### Academic Probation and Dismissal Standards

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 WSU Undergraduate Catalog for these standards.

#### Probation

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*, *IP*, *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 enrollment 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

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 at or above the minimum required, and have a cumulative or overall WSU grade point average below the minimum required. Students are not academically dismissed at the end of a semester unless they began that semester on academic probation.

Dismissal from a college because of poor academic performance constitutes dismissal from the university. Nonetheless, a 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 10 weeks of a regular semester or the first five weeks 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 class 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 29.)

The office initiating administrative withdrawal will notify the dean of the college in which the student is enrolled when withdrawal proceedings are initiated. The student is then notified by the

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

### 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.

### 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 online at [wichita.edu/registrar](http://wichita.edu/registrar), in person at the registrar's office, or by submitting a request form via mail or fax. Request forms and more detailed information are available at [wichita.edu/registrar](http://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 ordering a transcript online, 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*.

Transcript requests received in person or via mail/fax must be accompanied by a readable copy of government issued photo identification such as WSU ID, driver's license, passport or military ID. Requests will not be processed without this ID.

Mailed transcript requests should be sent 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 another person's transcript without written authorization and proof of identity from that person.

If a person still owes the university money, or has not returned borrowed university property, transcript services are withheld.

## Graduation

### Academic Distinction

Degrees are conferred with distinction upon students who have shown excellence in scholarship during their academic career, as evidenced by both their overall cumulative GPA and their Wichita State GPA. 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 nondegree-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 re-enter, or, if they elect, the requirements of a later catalog.

The WSU Undergraduate 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 semester 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 website: [wichita.edu/commencement](http://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; \$40 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 WSU Undergraduate Catalog for additional graduation requirements imposed by the department and college of their major. Graduate students should consult the WSU Graduate Catalog.

Students are required to file an online Application for Degree (in the *myWSU* portal) at least two semesters before their expected date of graduation.

Students must have credit for a minimum of 120 acceptable credit hours toward their degree. Hours of credit earned toward a degree do not include courses with grades of *F*, *W*, *Au*, *NCr*, *IP* 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 42) 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.

The same hours cannot be used to satisfy the requirements of two or more majors, or a major and a minor in the same area.

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 including 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. Exceptions 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.

## Inter-College Double Major

An inter-college double major allows a student to complete an academic degree and major in one of the professional colleges (Barton School of Business, College of Education, College of Engineering, College of Fine Arts, College of Health Professions) along with a major in the College of Liberal Arts and Sciences. The following criteria and policies apply:

1. The student's professional college will be their *primary* college and LAS will be their *secondary* college.

2. The established degree requirements for each major must be completed; but for the inter-college double major individual courses can be used to satisfy the major requirements of more than one major.

3. Students must complete all graduation requirements (general education, core courses and college required courses) within their primary college, but are not required to complete all the graduation requirements of their secondary college.

4. The diploma will be awarded by the student's primary college. The academic department within the student's secondary college must verify that the student has satisfied the requirements of their major.

5. The student's academic transcript will indicate both majors.

## 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.

## 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 nondegree-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 exceptions committee of his or her college for a late withdrawal from all courses in the semester in question. The student must provide verifiable evidence of the causes for failing to withdraw properly. The petition will also be submitted to the University Admissions and Exceptions Committee. If the petition is granted, the grades are changed to *W* through the usual withdrawal procedure. 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. 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 appeals procedure. Forms are available in the Office of the Provost, Room 109 Morrison Hall. The general procedure is explained to students when they pick up the form.

Appeals for charges of plagiarism must be filed with the class instructor's dean. For more information see section 2.17 of the *WSU Policies and Procedures Manual* at [wichita.edu/policiesprocedures](http://wichita.edu/policiesprocedures).

## 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 can be appealed by repeating, but will 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 an academic adviser 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 excluded). 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 (*Au*), Credit (*Cr*), or Satisfactory (*S*); 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.

## 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 all written notices from advisers, faculty, deans, and other university officers;

7. To file an application for degree in the appropriate college office by the published deadline for the semester in which graduation is intended; and

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 conduct procedures. These guidelines cover topics such as academic honesty, drug use, hazing, gambling, weapons and sexual harassment. The conduct procedures outline the actions needed to file a complaint and the course followed in student conduct hearings.

The Student Code of Conduct is located online at [wichita.edu/studentconduct](http://wichita.edu/studentconduct).

## Student Academic Honesty

A standard of academic honesty, fairly applied to all students, is essential to a learning environment. Students who compromise the integrity of the classroom are subject to disciplinary action by their instructor, their department, their college

and/or the university. Violations of classroom standards of academic honesty include, but are not limited to:

1. Cheating in any form, whether in formal examinations or elsewhere.
2. Using or submitting the work of others as one's own original work without assigning proper credit to the source.
3. Misrepresentation of any work done in or out of the classroom or in preparation for class.

4. Falsification, forgery or alteration of any documents pertaining to academic records.

5. Colluding with others in an effort to obtain a grade or credit not truly reflective of what the student knows or has learned.

Students violating such standards must accept the consequences and appropriately assessed penalties, which may include reprimand, a failing grade, or suspension or dismissal from an academic program or the university. Students accused of abridging a standard of academic

honesty will be provided with mechanisms for review and appeal of decisions regarding allegations of academic misconduct.

The fundamental responsibility for the maintenance of the standards of academic honesty rests with each student. It is each student's responsibility to be familiar with university policy on academic honesty and to uphold standards of academic honesty at all times and in all situations.



# Facilities and Support

## 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 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.

## Eugene M. Hughes Metropolitan Complex

The Eugene M. Hughes Metropolitan Complex, located at 29th Street North and Oliver, is considered part of the main campus. Named for WSU's 11th president, Eugene Hughes, the 27-acre site has many amenities, including an initial building containing the 1,750-seat Roger Lowe Auditorium, the 145-seat Frederick Sudermann Commons, and the Richard Welsbacher Experimental Theater, a black-box theater. This facility also has a gymnasium, an 80-seat meeting room, classrooms, offices for Continuing Education which offers noncredit courses to the community, and the Evelyn Hendren Cassat Speech-Language-Hearing Clinic offering special services in these respective fields. The complex also has playfields for intramural sports and the Advanced Education in General Dentistry building, providing advanced education to dental school graduates as well as needed oral health care to the general public.

## Fine Arts Facilities

**Wiedemann Hall** houses the first pipe organ built in North America by the world-renowned firm of Marcussen and Son, Denmark. The 425-seat music venue, dedicated in 1986, is the ideal acoustical setting for the organ. The building is named for music-lover and philanthropist Gladys H.G. Wiedemann.

**Duerksen Fine Arts Center**, opened in 1956, hosts university, community and professional music and dance performances. Named for alumnus and long-time dean of the college, Walter Duerksen, the fine arts center houses the School of Music, including the 500-seat Miller Concert Hall, classrooms and practice studios.

**Wilner Auditorium**, built in 1938 with federal funds provided through the Public Works Administration, is named to honor speech and theater professor George Wilner. Although other stages are now available, the 550-seat Wilner Auditorium still serves as the main stage for theater activities.

## 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

The National Institute for Aviation Research (NIAR) at Wichita State University is the largest academic aviation research and development institution in the United States with more than 250,000 square feet of laboratory space. Established in 1985, NIAR offers research, development, testing, certification and training services in the areas of aerodynamics, advanced coatings, aging aircraft, composites and advanced materials, CAD/CAM, computational mechanics, crash dynamics, full-scale structural test, environmental test, wind tunnel testing, mechanical test, non-destructive test, metrology, virtual reality and reverse engineering.

NIAR is home to the National Center for Advanced Materials Performance and the Federal Aviation Administration's Center of Excellence for Composites and Advanced Materials.

The NIAR Crash Dynamics Lab has a family of 17 crash test dummies including three children: a six-year-old, three-year-old and one-year-old; and the motion-tracking system used by the Virtual Reality Center is the same type of system used to translate the moves of sports players into animated figures for video games; making NIAR a unique research facility on multiple levels.

NIAR headquarters is located on WSU's main campus. Off-site NIAR locations include the Metrology Lab and Environmental Test labs at Hawker Beechcraft, laboratories within the National Center for Aviation Training, and the Aircraft Structural Test and Evaluation Center at the former Kansas Coliseum.

Find out more at [www.niar.wichita.edu](http://www.niar.wichita.edu), or by calling (316) 978-6427, or (800) NIAR-WSU.

## 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.

## South Campus

WSU's South Campus, located at 200 West Greenway Street, Suite 115A, Derby, sports state-of-the-art audio-visual instructional technology and equipment. In particular, there is a high-definition Interactive Distance Learning (IDL) facility with which WSU lectures are broadcast to colleges in other cities. There is a 30-workstation computer laboratory. The South Campus has Wi-Fi networks for both WSU personnel and the general public.

The South Campus offers both general education courses and professional degree programs: the accelerated nursing program allows students to complete their bachelor's degree in nursing in as little as 15 months after starting the program; and the elementary education program offers the last two years of courses leading to the bachelor's in education. Additional professional programs may be offered in the future.

Select student services including career and financial aid counseling are available by appointment. Students can order materials from both the WSU bookstore and WSU library to be delivered, free of delivery charges, to the South Campus for pickup. WSU library materials may also be returned to the South Campus library drop box.

## Ulrich Museum of Art

Open up to a new art experience! The Ulrich Museum of Art, north of the Millipede sculpture in the southwest section of campus, offers WSU students free museum memberships when they call (316) 978-3664, email [ulrich@wichita.edu](mailto:ulrich@wichita.edu) or stop by the museum with their Shocker Card to activate their membership. Members receive e-newsletters along with free admission to upcoming events, programs and exhibitions.

The Ulrich Museum presents an endless stream of groundbreaking exhibitions, prominent guest speakers and compelling performances that explore today's visual culture. Free events such as the Ulrich Spa Getaway during finals week (with free hand and chair massages) and the Members' Opening Parties (complete with live music and complimentary food and beverages) give WSU students an opportunity to see great works of art in a fun and relaxed setting.

In addition to the art inside the museum, the Ulrich has one of the top 10 outdoor sculpture collections on a college/university campus in the United States (2006 Public Art Review). Free maps of the outdoor sculpture collection are available at the museum's main desk.

Hours: 11 a.m. to 5 p.m. Tuesday through Friday and 1-5 p.m. Saturday and Sunday. Closed Mondays and major/university holidays.

- Admission: free
- Phone: (316) 978-3664
- Email: [ulrich@wichita.edu](mailto:ulrich@wichita.edu)
- Web: [ulrich.wichita.edu](http://ulrich.wichita.edu)
- Facebook: [facebook.com/ulrichmuseum](https://www.facebook.com/ulrichmuseum)
- Twitter: [twitter.com/ulrichmuseum](https://twitter.com/ulrichmuseum)

## West Campus

WSU offers more than 100 class sections each semester at the West Campus located at 3801 N. Walker Avenue, which is near the intersection of 37th Street North and Maize Road.

The West Campus is the home of WSU Complete—the adult degree completion program offering bachelor's degrees in business administration, criminal justice, and general studies. Additionally, general education and upper-level courses are offered in select disciplines. Graduate-level course offerings, including Master of Social Work courses and teacher recertification workshops are also available.

The West Campus offers services such as career services, financial aid, tuition and fee payment, as well as library book delivery (online checkout only) and return.

The West Campus has access to the WSU Wi-Fi network for use by WSU faculty, staff and students, as well as the general public.

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

## University Support Areas

### Alumni Association

**Deborah L. Kennedy, President and CEO**

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

Many traditional university events—including Welcomefest, Shocktoberfest, commencement, homecoming and WSU senior breakfasts and lunches—are supported by association dollars and volunteers. The association also sponsors Shockers Forever, a dynamic student group. Shockers Forever provides students unequalled opportunities to network with fellow students and WSU alumni of all ages. Another WSU initiative that directly benefits students and relies on alumni participation for its success is the *Drive Your Pride* license plate program. This program offers alumni and students the chance to sport WuShock on their official Kansas tags, and, at the same time, contribute to student scholarships.

The tag program pours thousands of dollars each year into scholarships for deserving students.

For more information about the groups, events, projects and publications of the WSU Alumni Association, visit [wichita.edu/alumni](http://wichita.edu/alumni), call (316) 978-3290, or drop by the Woodman Alumni Center, 4205 E. 21st Street, just east of Eck Stadium/Tyler Field.

### WSU Foundation

**Elizabeth H. King, president and CEO**

The WSU Foundation, the private fund-raising 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 2013, \$6.0 million was given to university programs from endowed funds of the foundation. Of that, \$3.1 million was in the form of scholarships to undergraduate and graduate students. The remainder funds projects such as faculty support, research, Ablah Library and the Ulrich Museum of Art.

For more information, contact (316) 978-3040 or [foundation.wichita.edu](http://foundation.wichita.edu) where contributions can be made online.

## Student Life

### Career Services

The Office of Career Services provides career advice and employment-related assistance to students, alumni, faculty, staff and community members. Individual career counseling sessions are available to assist with planning and decision making.

Hire-a-Shocker is an online recruiting tool available to all students and alumni of WSU through their *myWSU* account. National, regional and local employers use the system. Hire-a-Shocker is also a resume database accessed by employers trying to fill degreed and nondegreed positions. All students are encouraged to post a resume and use the system as part of their job search strategy. Other employment services include job fairs, on-campus interviews, job search workshops and networking events.

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 seeking full-time employment after graduation, can contact Career Services at (316) 978-3435 or [career.services@wichita.edu](mailto:career.services@wichita.edu). Visit [wichita.edu/career](http://wichita.edu/career) for more information.

### 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 licensed child care center for children of WSU students, faculty, staff and alumni. 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: [wichita.edu/childdevelopmentcenter](http://wichita.edu/childdevelopmentcenter).

### Counseling and Testing Center

The Counseling and Testing Center provides psychological services for personal and mental health issues. Psychological testing for learning disabilities is offered. Workshops and seminars on a variety of mental health and wellness topics are available. 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 318 Grace Wilkie Hall, at (316) 978-3440, or online at: [wichita.edu/counselingtesting](http://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/disserv](http://wichita.edu/disserv)

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 1,400 international students from more than 100 countries enrolled at Wichita State University. (For international student admission requirements, see page 10.) An



Photo: Lisa Fleetwood

orientation program specially designed for new international students prepares them for entrance into the U.S. academic system and way of life.

The office also sponsors 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 RSC Food Court features Taco Bell Express®, Chick-Fil-A Express®, Pizza Hut Express® featuring the Wing Street Menu, Fast Break & Freshens Smoothies & Yogurts and Masala Asian Grill.

The University Bookstore, on the first floor of the RSC, stocks textbooks for rent or purchase, computer software and hardware at educational prices, art supplies, general reading material, greeting cards, Shocker souvenirs and gifts.

The RSC's William H. Smith Bowling and Recreation Center is for leisure use. Currently, during the renovation, the new wRECK Center is located on the second floor. It includes billiards, video games, poker tournaments, darts, and fun foods and beverages. The newly renovated center will be perfect for parties and made available for campus and noncampus group rentals at reasonable rates. The center is also the home of the nationally ranked Shocker men's and women's bowling teams.

Student Involvement provides opportunities for students to engage in co-curricular and extra-curricular activities to enhance their collegiate experience while at Wichita State. Some of the areas to get involved in include Civic Engagement, Greek Life, Leadership, RSC Gallery,

Service-Learning, Student Activities Council and Student Organizations.

The RSC is also home for the Student Government Association, Student Advocate, Shocker Card Center, Commerce Bank, Campus Ministry, Lords and Ladys Hair Salon, and the Engraving Shop. Additionally, the RSC has a 450-seat theatre and meeting spaces that can be scheduled for use.

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 University Information Center (UIC) is located on the first floor of the RSC. Call the UIC at 316-978-INFO (4636) for any information about WSU.

Visit the RSC online at [wichita.edu/RSC](http://wichita.edu/RSC) for more information and updates on the Rhatigan Renewal.

## 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.

## Sport Facilities

The 10,506-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](http://goshockers.com).

## Campus Recreation

Campus Recreation is home to everything a Shocker needs to get their fitness, leisure and recreation groove on! Many indoor programs and activities take place in the *Heskett Center*. This 166,000 square-foot facility has everything a fitness enthusiast needs for a healthy, enjoyable, and productive college career. By presenting a current Shocker ID card students open a door into the very best in fitness and recreation! Features include:

- 5 convertible basketball/volleyball/badminton courts;
- 200 meter indoor track;
- 3 Shocker fitness studios;
- Racquetball and squash courts;
- 25 foot-high climbing wall;
- 5,000+ square feet of fitness specific activity space including cardiovascular, and strength and conditioning equipment;
- 25 meter swimming pool with separate dive well;
- 6 outdoor, lighted, hard-court tennis courts; and
- Spacious men's and women's locker rooms.



Photographer: Paul Talley, Courtesy of Special Collection and University Archives, WSU Libraries

Individual services available for purchase by members include:

- Shocker fitness membership with over 25 classes/week;
- Personal training session packages; and
- Massage session packages.

Campus Recreation is here to provide students with solutions to their fitness, leisure and recreational needs. We look forward to serving Shockers for many years! To learn more about the programs and services provided check us out at [wichita.edu/campusrecreation](http://wichita.edu/campusrecreation). "Like" us on Facebook, or call us at (316) 978-3082.

## Office of Multicultural Affairs

The Office of Multicultural Affairs (OMA) provides activities and programs that support a civil, inclusive and nurturing campus environment for all members of the Shocker community. OMA works closely with other university departments and organizations to offer year-round educational, social, cultural and outreach programs for students, faculty, staff and others aimed at achieving academic excellence while promoting a just and equitable learning community.

The mission of the Office of Multicultural Affairs is to promote 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.

A partial listing of events and programs sponsored in collaboration with many campus partners in celebration of campus diversity includes Black History Month, Women's History Month, Asian/Pacific American Heritage Month, Hispanic Heritage Month and Native American History Month.

The office also sponsors the Multicultural Student Mentoring Program which matches successful continuing WSU students with freshmen, sophomore and transfer students to help ease the transition from high school, freshman year or community college to WSU. It helps new students quickly identify all the support services available and provides direct tutorial assistance to any program participants who have committed to achieving their personal best. This program has also developed an early alert, academic support component enabling the office to provide academic support strategies to program participants in a timely fashion.

OMA is located in Room 174 of Grace Wilkie East (Annex). Much more detailed information describing Ambassadors for Multicultural Affairs, Brother-2-Brother Support Group and many more activities and programs can be found at [wichita.edu/oma](http://wichita.edu/oma).

## 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 200 student organizations, and allocates approximately \$10 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 (SHS)

SHS is the on-campus health care source for WSU students. Located at 209 Ahlberg Hall (health professions building), SHS provides health care for ill and injured students as well as answers to questions on health concerns. Our professional medical staff of nurse practitioners, nurses and physicians provides a wide range of health services.

We accept KBOR group student health insurance, but health insurance is not required to see a medical provider. Service fees are very low and we take cash, check or credit cards. Call us at (316) 978-3620, or visit [wichita.edu/shs](http://wichita.edu/shs).

## Veteran's Services

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

Wichita State University is designated a Serviceman's Opportunity College. For more information, visit the website [wichita.edu/veterans](http://wichita.edu/veterans).

## TRIO Programs Disability Support Services Educational Opportunity Centers 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 toward 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 individualized academic tutoring, advice and assistance in postsecondary course selection and degree planning, assistance with graduate and professional program applications, and career exploration and referral. TRIO DSS assists students with information about financial aid programs and scholarship opportunities, provides assistance in completing financial aid applications, and offers education or counseling services designed to improve financial/economic literacy. Students at TRIO DSS sharpen study/life skills through workshops and access to the computer technology lab, book/computer loan program (desktop and laptop) and exposure to cultural events and academic programs on campus and in the community.

For information, contact TRIO DSS at (316) 978-5949, stop by 158 Grace Wilkie Annex, or visit [wichita.edu/dss](http://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 postsecondary education, including assistance in preparing the necessary applications for use by admissions and financial officers. Services include: assistance with completing college admissions applications; completing

financial aid applications; career guidance and other specialized workshops; academic advice, personal counseling and study skills assistance; General Educational Development (GED test preparation and testing), English as a Second Language (ESL), or Adult Basic Education (ABE) test preparation; and community referrals. See [wichita.edu/eoc](http://wichita.edu/eoc).

**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 symposiums 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](http://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](http://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 website is [wichita.edu/talentsearch](http://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). Communication and Veterans were added in 2008.

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 websites, 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 **Upward Bound Regional Math-Science Center—The Galaxy Experience** is designed to serve 50 economically disadvantaged high school students who have the potential to be the first in their family to attend college and earn a four-year degree, preferably in a science or mathematics field. It is the mission of the Upward Bound Math Science Regional Center to: educate students with the propensity for study in STEM (Science, Technology, Engineering and Mathematics) areas for postsecondary; to stimulate and sustain interest in STEM careers; and to motivate low-income and potential first generation college students to realistically consider the attainment of a postsecondary degree in STEM.

The UBMS program is provided to students in two interrelated components, a summer component known as the *Galaxy Experience* and an academic year component referred to as *The Leadership Academy*. With major foci on acquisition of 21st century learning skills, mastery of core content and application of concepts mastered, and development of leadership talents, the center works with students via homework assistance, community service projects, bi-weekly leadership training and monthly academic skills workshops. The center also offers its students the opportunity to interact with industry and peer mentors and participate in campus visits and social/cultural events. The Upward Bound Math Science Center website is: [wichita.edu/ubms](http://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 in Brennan Hall #1, Room 415.

**Wichita Prep** assists high school students from limited-income backgrounds 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 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 website is: [webs.wichita.edu/ubwp](http://webs.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 postsecondary 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 DCF 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 homework assistance and workshops, mentoring and counseling (academic and career planning),

postsecondary 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](http://wichita.edu/gearup).

### **Student Organizations**

Student organizations may be granted the privileges of university recognition if they are registered with Student Involvement and approved by the Student Government Association (SGA).

To be approved, each organization must provide a completed RSO Renewal Form, list of officers with addresses, copies of constitutions and bylaws, and an adviser's name and address to Student Involvement. 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 SGA in accordance with

established procedures and guidelines, and be listed as a WSU organization in university publications. Records of recognized organizations are maintained in Student Involvement.

For a complete list of recognized student organizations, please see the Student Involvement website: [wichita.edu/involvement](http://wichita.edu/involvement).

# University Policies and Procedures

## Release of Student Information Policy (Privacy Law)

The Family Educational Rights and Privacy Act of 1974 (FERPA), as amended, is a federal law that sets forth requirements pertaining to the disclosure of, and access to, education records maintained by Wichita State University.

Wichita State University accords all 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 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, to persons in an emergency in order to protect the health or safety of students or other persons, or to other persons or entities to whom disclosure is 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), email address, photograph, telephone number(s), dates of attendance, classification (freshman, sophomore, etc.), course load (full time, half time, less than half time), class type (day, day/evening, weekend only), previous institution(s) attended, major field(s) of study, awards, honors (includes dean's list), 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 or 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 released by completing a written request.

The form for requesting the withholding of directory information is available from the Office of the Registrar, 117 Jardine Hall, or call (316) 978-3055 to have one mailed or faxed. The completed form is returned to the registrar's office with a *readable* copy of one of the student's government issued photo IDs, such as driver's license. The form is processed by the business day after it is received. Withholding directory information excludes the student from the online directory, which is available on the WSU website to anyone with a *myWSU* ID. It also has other ramifications. Students should consider very carefully the consequences of any decision to withhold directory information to outside parties. Doing so could be a disadvantage should a lender, insurance company, employer, etc., want to quickly verify a student's enrollment or graduation. It also excludes a student from the Dean's Honor Roll or graduation lists that are sent to the media.

The institution will honor a student's request to withhold directory information, but cannot assume responsibility to contact students for subsequent permission to release it. Regardless of the effect on a student, the institution assumes no liability for honoring instructions to withhold information.

The same form and process is also used to remove a previous do not disclose instruction.

## 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:** FERPA regulations define directory information as: "Information contained in an education record of a student which would not generally be considered harmful or an invasion of privacy if disclosed." Under the regulation, such information includes, but is not limited to, the student's name, address, telephone listing, electronic mail address, photograph, date and place of birth, major field of study, dates of attendance, grade level, enrollment status, participation in officially recognized activities and sports, weight and height of members of athletic teams, degrees, honors and awards received, and the most recent 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.

(6) Grades on peer-graded papers before the grades are collected and recorded by a teacher.

**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 the Division of 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 a social security number, student number, or biometric record, or other personal characteristics or other information that would make the student's identity easily traceable.

**H. School Official:** Faculty, staff, university police officers, student employees, members of the behavioral intervention team, 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. A school official also may include a contractor who performs an institutional service or function for which the university would otherwise use its own employees and who is under the direct control of the university with respect to use and maintenance of personally identifiable information from education records.

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

## 3. Waiver of Rights

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

(1) The applicant or student, upon request, is notified of the names of all persons providing letters;

(2) The letters are used only for the purpose for which they were originally intended;

(3) The waiver is not required as a condition of admission or for any other service or benefit of the university.

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.

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 education records except as otherwise provided in this policy.

The university may, without the consent of the student, disclose directory information. If a student wishes to have such information withheld, he or she must notify the Office of the Registrar in writing, as described previously. If a student wishes to prevent the inclusion of such information in the online student 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 contractors, consultants, volunteers and other parties to whom the university has outsourced institutional services or functions as permitted by FERPA regulations; 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 for the financial aid; or (4) to enforce the terms or conditions of the financial aid.

The university may disclose personally identifiable information from the education records of a student to appropriate parties, including parents of an eligible student, in connection with an emergency if knowledge of the information 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 the totality of the circumstances pertaining to the threat to the health or safety of a student or other individuals. If the university determines that there is an articulable and significant threat to the health or safety of a student or other individuals, it may disclose information from education records to any person whose knowledge of the information is reasonably considered necessary to protect the health or safety of the student or other individuals.

The university may disclose personally identifiable information from the education records of a student to a parent without the student's consent regarding the student's violation of any federal, state or local law, or of any rule or policy of the university governing the use or possession of alcohol or a controlled substance if the institution determines that the student has committed a disciplinary violation with respect to that use or possession and the student is under the age of 21 at the time of disclosure to the parent.

The university may disclose personally identifiable information from the education records of a student without prior consent to other institutions of postsecondary education where the student seeks or intends to enroll, provided that certain circumstances are met and disclosure is related to the student's enrollment or transfer.

As permitted by and subject to FERPA regulations, the university also may disclose personally identifiable information from education records to authorized representatives of federal, state and local educational authorities, to organizations conducting studies for or on behalf of educational agencies or institutions, to accrediting organizations, to comply with judicial orders or lawfully issued subpoenas, to victims of a crime of violence or nonforcible sex offense, in connection with university disciplinary proceedings, or if disclosure concerns sex offenders and other individuals required to register under federal law.

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

## 5. Release of a Student's Grades

Board of Regents policy provides that the university may not withhold the written record of grades earned by any dependent student when the university receives a written request for any such grades from a student, a student's parents, or a student's legal guardian. The student will be notified in writing of any disclosure of his or her grades made to his or her parents or legal guardian. Dependency, for this purpose, is defined by the Internal Revenue Code, 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

Education records shall be maintained consistent with university policy on the retention of 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 Requests and Disclosures

The unit custodian shall maintain a record 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; (5) for disclosures in compliance with certain judicial orders or lawfully issued subpoenas, after a reasonable attempt has been made to notify the eligible student or parent.

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 records by the vice president for the Division of 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 the Division of 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 the Division of 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 the Division of 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 the Division of 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 the Division of 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 commenting upon the information in the records and/or setting forth any reason for

disagreeing with the decision. If the questioned document is released to a third person, the student's summary statement shall accompany the release of any such information. The summary information shall be maintained for as long as the contested record is maintained.

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 the Division of 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 FERPA, the student should first contact the office involved and/or the office of the vice president for the Division of 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 FERPA, he or she must submit the complaint, in writing, to the Family Policy Compliance Office (FPCO), U.S. Department of Education, 400 Maryland Avenue, S.W., Washington, D.C. 20202-5920. The FPCO office will notify the student when the complaint has been received. The FPCO 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 information concerning this hearing procedure, see 34 C.F.R. Sections 99.64 through 99.67.

### Notice of Nondiscrimination

1. It is the stated policy of Wichita State University to prohibit discrimination in employment and in educational programs and activities on the basis of race, religion, color, national origin, gender, age, sexual orientation, marital status, political affiliation, status as a veteran, genetic information or 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 Undergraduate and Graduate Catalogs is available online at the registrar's website, [wichita.edu/registrar](http://wichita.edu/registrar). Inquiries should be addressed to the Office of Disability Services for large print, Braille, and audio tape versions.

### Title IX

Title IX of the Education Amendment of 1972 prohibits discrimination on the basis of sex in any federally funded education program or activity. Wichita State University supports efforts to comply with and carry out its institutional responsibilities under the coordination of the vice president and general counsel. Deputy coordinators are designated for students, classified and unclassified professional staff and visitors, for faculty, and athletics.

The entire policy including names and contact information is located online in section 20.24 of the WSU Policies & Procedures Manual at: [wichita.edu/policiesprocedures](http://wichita.edu/policiesprocedures).

### 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/re-enrollment 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/re-enrollment."

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 automatic. Contact the registrar's office for more information.*

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 nonpermanent immigration status, undocumented aliens, and former Kansans who have not been back in Kansas long enough to re-establish residency. This law does not apply to an eligible person's spouse or dependents. People who have been admitted as nonresidents 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 nonpermanent 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 Jardine Hall. There are many details about establishing Kansas residency for tuition purposes that will be explained upon further inquiry.

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

When a continuing student, who was initially classified as a nonresident, 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 nonresident 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.

More information about campus safety including links to emergency news and the option to opt in to ShockerAlert System emergency notifications can be found at: [wichita.edu/safety](http://wichita.edu/safety).

The annual security and fire report is available at [wichita.edu/annualsecurityreport](http://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](http://wichita.edu/police).

**University Behavioral Intervention Team.** Wichita State cares about the health and safety of all members of the campus community. The University's Behavioral Intervention Team applies a multidisciplinary approach to preventing individuals from harming themselves or others, and generally assisting persons in need. The University Behavioral Intervention Team may be contacted in the following ways:

Phone Number: (316) 978-UBIT (8248)

Email: [ubit@wichita.edu](mailto:ubit@wichita.edu)

Web Address: [wichita.edu/UBIT](http://wichita.edu/UBIT)

# General Education Program

## WELL-ROUNDED LEARNING.

At Wichita State, we strive to offer the most complete college experience possible to produce well-rounded, successful Shocker graduates. Through general education courses, you'll explore subjects outside of your major, expanding your knowledge, perspective and skills and making a positive impact on your career and life.

### What you'll get from general education courses:

- Improved critical thinking skills
- Better communication, written and spoken
- Increased analytical reasoning and problem solving
- An acquired knowledge of natural and social science, the arts and humanities

**Improve your skills by taking courses that include diversity content, study abroad experiences, service learning and cooperative education (experience-based learning)**

## GENERAL EDUCATION COURSE REQUIREMENTS, IN A NUTSHELL.

The 42 hour General Education Program at WSU consists of three tiers containing four kinds of courses.

### | TIER 1 | BASIC SKILLS ☞ Complete four courses within the first 48 hours of enrollment with a grade of C- or better.

*Basic skills courses cover the fundamental skills you'll need throughout your college career and should be taken at the very beginning of your studies.*

- English 100 or 101                      → COMM 111
- English 102                              → MATH 111, 112 or 131<sup>1</sup>

### | TIER 2 | INTRODUCTORY COURSES IN THE DISCIPLINES ☞ Complete seven courses<sup>2</sup>

*These courses introduce students to the scope of human knowledge and inquiry. You'll use skills learned in Tier 1 during these courses.*

| FINE ARTS  | HUMANITIES   | SOCIAL/BEHAVIORAL SCIENCES   | MATHEMATICS AND NATURAL SCIENCES<br><small>(One class must be from biological sciences, chemistry, geology or physics.)</small>   |
|--|--|--|---|
| <b>SUBJECT AREA</b><br>Art History<br>Dance<br>Musicology/Composition<br>Theater | <b>SUBJECT AREA</b><br>Communication <sup>3</sup><br>English <sup>3</sup><br>History<br>Modern and Classical Languages and Literatures<br>Linguistics<br>Philosophy<br>Religion<br>Women's Studies | <b>SUBJECT AREA</b><br>Anthropology<br>Criminal Justice<br>Economics<br>Entrepreneurship<br>Ethnic Studies<br>Geography<br>Political Science<br>Psychology<br>Sociology<br>Social Work | <b>SUBJECT AREA</b><br>Anthropology<br>Biological Sciences<br>Chemistry<br>Computer Science<br>Geology<br>Mathematics/Statistics <sup>3</sup><br>Physics<br>Public Health |
| <b>REQUIREMENT</b><br>☞ one course   | <b>REQUIREMENT</b><br>☞ two courses, one in each of two subject areas  | <b>REQUIREMENT</b><br>☞ two courses, one in each of two subject areas  | <b>REQUIREMENT</b><br>☞ two courses, one in each of two subject areas   |

**VISIT ☞ | [WICHITA.EDU/GENERALEDUCATION](http://WICHITA.EDU/GENERALEDUCATION) |**

<sup>1</sup> MATH 111 or any 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.

<sup>2</sup> Courses within a student's major department shall not count toward fulfilling general education requirements (this restriction applies only to one major. For students with a double major, courses in the second major could count toward fulfilling their requirements).

<sup>3</sup> Excluding basic skills.

**| TIER 3 | ISSUES AND PERSPECTIVES AND FURTHER STUDY IN THE DISCIPLINES** ➔ Complete three courses,<sup>4</sup>

*From addressing broad issues to providing more focused studies, these courses allow students to follow up on interests developed during Tier-2 courses.<sup>5</sup>*

- Fine Arts and Humanities
- Social and Behavioral Sciences
- Mathematics and Natural Sciences

**| ADDITIONAL COLLEGE/SCHOOL GENERAL EDUCATION REQUIREMENTS |**

- **Business** requires MATH 144 or 242 and ECON 201 and 202. MATH 111 or 112 meets the prerequisite for MATH 144. Philosophy requirements: PHIL 125 counts as an introductory course and PHIL 306, a further study course.
- **Education** requires PSY 111. Teacher education students must take STAT 370 (Secondary math majors must take MATH 242 instead of STAT 370). MATH 111 is a prerequisite for STAT 370. Elementary majors must earn a C (2.000) or higher in MATH 111 in order to take higher level MATH courses.
- **Engineering** students are required to take MATH 242, 243 and CHEM 211. Students fulfill issues and perspectives requirements with PHIL 385 and PHIL 354. Students cannot take a further study course in the division of Fine Arts.
- **Fine Arts** students majoring in art education, music education and special education music are required to take PSY 111 and STAT 370 (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)
  - Three natural sciences courses: At least one biology course and one physical sciences course; one must have a laboratory experience. (Does not include mathematics, personal computing, statistics or computer science).
  - 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.

## OUR ADVICE? ➔ GO SEE YOUR ADVISER.

The best way to stay on course toward graduation is to meet with an adviser each semester before registering for classes. Your adviser will help you in selecting and sequencing classes that meet your particular degree requirements. **To schedule a meeting, contact the advising office in the college of your major.**

**Business** | 316-978-3203 |

**Education** | 316-978-3300 |

**Engineering** | 316-978-3420 |

**Health Professions** | 316-978-3304 |

Nursing | 316-978-5708 |

**Liberal Arts and Sciences** | 316-978-3700 |

**Fine Arts**

Art and Design | 316-978-7701 |

Music | 316-978-6430 |

Performing Arts | 316-978-6634 |

Dance | 316-978-3530 |

<sup>4</sup> If a student takes two Further Study courses and one I&P course, the two Further Study courses must be distributed over two divisions. If two I&P courses are taken out of three, a divisional distribution is not required, but at least two subject areas are required.

<sup>5</sup> A Further Study course is taken in a discipline after a student has completed an introductory course in the same discipline.

## General Education Courses

General education courses must be at least 3 credit hours and from the approved general education course list. For more information, visit the general education website at [wichita.edu/generaleducation](http://wichita.edu/generaleducation).

All courses approved 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.

## 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 (P)         |
| HNRS 150 | Seminar II: Fine Arts (P)        |
| MUSC 113 | Introduction to Music Literature |
| MUSC 160 | The Heritage of Western Music    |
| MUSC 161 | Music Through the Ages           |
| 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 210 | Intermediate German I (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 (P)                          |
| HNRS 151 | Seminar II: Humanities (P)                         |
| LATN 223 | Intermediate Latin (P)                             |
| LING 151 | The Nature of Language (P)                         |
| PHIL 100 | The Meaning of Philosophy                          |
| PHIL 125 | Introductory Logic                                 |
| PHIL 144 | Moral Issues                                       |
| REL 110  | Old Testament                                      |
| REL 115  | New Testament                                      |
| RUSS 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 | Modern America: Understanding Diversity |
| 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 Communications  |
| GEOG 125 | Principles of Human Geography                  |
| GEOG 210 | Intro. to World Geography                      |
| HNRS 106 | Seminar I: Social and Behavioral Sciences (P)  |
| HNRS 152 | Seminar II: Social and Behavioral Sciences (P) |
| POLS 121 | American Politics                              |
| POLS 220 | Intro. to International Relations              |
| POLS 226 | Comparative Politics                           |
| PSY 111  | General Psychology                             |
| SCWK 201 | Intro. to Social Work & Social Welfare         |
| SOC 111  | Introduction to Sociology                      |

### Mathematics and Natural Sciences Courses

|          |  |
|----------|--|
| ANTH 101 | Biological Anthropology                          |
| BIOL 103 | Microbes and You                                 |
| BIOL 106 | The Human Organism                               |
| BIOL 107 | The Human Organism Lab                           |
| BIOL 210 | General Biology I                                |
| BIOL 220 | Intro. to Microbiology (P)                       |
| BIOL 223 | Human Anatomy and Physiology (P)                 |
| CHEM 101 | The Science of Chemistry                         |
| CHEM 103 | Introductory Chemistry (P)                       |
| CHEM 211 | General Chemistry I (P)                          |
| CS 210   | Intro. to Computer Science (P)                   |
| GEOL 102 | Earth Science and the Environment                |
| GEOL 111 | General Geology                                  |
| HNRS 107 | Seminar I: Mathematics and Natural Sciences (P)  |
| HNRS 153 | Seminar II: Mathematics and Natural Sciences (P) |
| HS 290   | Foundational Human Anatomy and Physiology        |
| MATH 144 | Business Calculus (P)                            |
| MATH 242 | Calculus I (P)                                   |
| PC 105   | Introduction to Computers and Applications (P)   |
| PHYS 111 | Introductory Physics (P)                         |
| PHYS 131 | Phys. for the Health Sciences (P)                |
| PHYS 195 | Intro. to Modern Astronomy                       |
| PHYS 213 | General College Physics I (without calculus) (P) |
| PHYS 303 | Physics for Engineers I (C)                      |
| PHYS 313 | Phys. for Scientists I (w/calculus) (C)          |
| PHYS 315 | University Physics Lab I (P)                     |
| STAT 370 | 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 (P)                 |
| ARTH 328 | Italian Renaissance (P)          |
| ARTH 343 | 18th & 19th Century Art (P)      |
| ARTH 346 | 20th Century Art Before 1945 (P) |

|          |  |
|----------|--|
| ARTH 347 | Art Since 1945 (P)                                 |
| DANC 225 | Dance History: Ancient Civilization to Early 1900s |
| DANC 325 | Dance History: 20th and 21st Centuries             |
| FA 301   | An Intro. to Entrepreneurship in the Arts          |
| FA 310   | Arts and Technology                                |
| MUSC 334 | History of Music I (P)                             |
| MUSC 335 | History of Music II (P)                            |
| 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 | Theatre History I                                  |
| THEA 624 | Theatre History II                                 |

### Humanities Courses

|          |  |
|----------|--|
| COMM 221 | Oral Interpretation  |
| COMM 302 | Interpersonal Communication                                  |
| COMM 311 | Persuasion (P)   |
| COMM 312 | Nonverbal Communication (P)                                  |
| COMM 313 | Argumentation and Advocacy                                   |
| COMM 430 | Communication Research and Inquiry (P)                       |
| COMM 535 | Communication Analysis and Criticism (P)                     |
| COMM 631 | Historical & Theoretical Issues in Communication (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 I (P)                                       |
| ENGL 330 | The Nature of Fiction (P)                                    |
| ENGL 340 | Major Plays of Shakespeare (P)                               |
| ENGL 344 | Regional Literature (P)                                      |
| ENGL 345 | Studies in Comparative Lit. (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)                                       |
| ENGL 385 | Advanced Composition (P)                                     |
| ENGL 517 | Playwriting I (P)  |
| ENGL 518 | Playwriting II (P)   |
| FREN 223 | Intermediate French Readings I (P)                           |
| FREN 300 | Intermediate French Readings II (P)                          |
| FREN 540 | French Literature in English Translation                     |
| FREN 541 | French Literature of Africa and the Caribbean in Translation |
| GERM 224 | Intermediate German II (P)                                   |
| GERM 300 | Intermed. German Readings (P)                                |
| GREK 224 | Intermediate Greek (P)                                       |
| HIST 306 | The U.S. Century: Decades of Change                          |
| HIST 311 | Colonial Latin America                                       |
| HIST 312 | Modern Latin America   |



PHYS 316 University Physics Lab II (C)  
 PHYS 395 Solar System Astronomy  
 STAT 460 Elementary Probability and  
 Mathematical Statistics (P)  
 STAT 571 Statistical Methods I (P)  
 STAT 572 Statistical Methods II (P)  
 STAT 576 Applied Nonparametric Statistical  
 Methods (P)

**Issues and Perspectives Courses**

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

ARTE 303 Stimulating Creative Behavior  
 ARTH 349 Architecture  
 BIOL 310 Human Reproduction (P)  
 BIOL 370 Intro. Environmental Science  
 COMM 335 International and Intercultural  
 Communication  
 CSD 210 Physics of Sound  
 ENGL 343 Great Plains Literature (P)  
 GEOL 300 Energy, Resources and  
 Environment (P)  
 GERM 341 German in the European Context  
 HIST 308 A History of Lost Civilizations

HIST 330 Americans: Conflict & Consensus  
 HMCD 308 Leadership in Self and Society  
 HMCD 310 Intro. to the U.S. Health Services  
 System  
 HMCD 326 Emerging Health Care Issues of  
 the 21st Century  
 HNRS 304 Seminar III: Fine Arts (P)  
 HNRS 305 Seminar III: Humanities (P)  
 HNRS 306 Sem. III: Soc. & Behav. Sciences (P)  
 HNRS 307 Sem. III: Math & Nat. Sciences (P)  
 HNRS 406 Sem. in Soc. & Behav. Sciences (P)  
 HNRS 407 Sem. in Math & Nat. Sciences (P)  
 HP 330 Cancer: Perspectives and  
 Controversies (P)  
 IB 333 International Business (P)  
 LASI 300 Global Issues  
 MATH 531 Introduction to the History of  
 Mathematics (P)  
 MLS 430 Impact of Disease Upon Global Events  
 MUSC 310 Interrelated Arts  
 PADM 400 Issues & Perspectives on the City  
 PHIL 300 Science and the Modern World  
 PHIL 302 Values and the Modern World  
 PHIL 306 Business Ethics (P)  
 PHIL 354 Ethics and Computers (P)

PHIL 385 Engineering Ethics (P)  
 PHYS 210 Physics of Sound  
 POLS 232 Political Theory and Philosophy  
 PSY 413 Leadership in Self & Society  
 PSY 416 Psy. & Problems of Society (P)  
 PSY 534 Psychology of Women (P)  
 RUSS 540 Russian Literature in English (P)  
 SCWK 541 Women, Children and Poverty (P)  
 SOC 316 Men and Masculinities  
 SOC 336 Work in Modern Society  
 SOC 346 Sociology of Globalization (P)  
 THEA 385 Theater as a Mirror of Today's  
 America  
 WOMS 316 Men and Masculinities  
 WOMS 534 Psychology of Women (P)  
 WOMS 541 Women, Children and Poverty (P)  
 WOMS 586 Gender, Race and Knowledge  
 WOMS 588 Gender, Race and the West/East  
 Divide

(P) designates courses with prerequisites.  
 (C) designates courses with corequisites.  
 \*Students may enroll in further study history courses with depart-  
 mental consent in lieu of a required introductory history course.



# W. Frank Barton School of Business

**Douglas Hensler, dean**  
 100 Clinton Hall • (316) WSU-3200  
[wichita.edu/business](http://wichita.edu/business)

James Clark, *associate dean*

Kate Kung-McIntyre, *assistant dean, undergraduate student support services*

**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 serving research university, 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.



*Courtesy Photos*

**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 178 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 and 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.

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. The Barton School also offers a graduate certificate in entrepreneurship and innovation.

## 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, economics, entrepreneurship, finance, general business, international business, management, management information systems, marketing, operations management and personal selling. A minor in general business 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.

## 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) an overall and WSU institutional grade point average of 2.250; (2) completed ACCT 210, 220; ECON 201, 202, 231, 232; BADM 160, and MATH 144 or equivalent courses; and (3) completed all parts of the Barton School Advanced Standing Exam. *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.** 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.

### Date of Catalog Requirements

Students entering or transferring into the Barton School of Business are placed on the most current catalog based on the semester they begin at the Barton School of Business and must complete the degree requirements of that catalog. Students who have been out of the university for two consecutive years or more must complete the most current catalog requirements.

## Probation and Dismissal

### Probation

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.

1. Students are placed on probation whenever their overall or WSU institutional grade point average falls below 2.250 and they have attempted at least 6 hours at Wichita State University.

2. Probation is removed when the overall and WSU institutional grade point averages reach the required 2.250 level.

3. Students continue on probation when they earn a 2.250 or better semester grade point average but their overall or WSU institutional grade point average remains below 2.250.

Students on academic probation are limited to taking 12 credit hours in a 16-week term, 6 credit hours in an eight-week term, and 3 credit hours in a four-week term. Students on academic probation may not enroll in a two-week course. Exceptions to these limitations may be made by filing a written petition with the Barton School of Business exceptions committee. Petitioners must meet with an academic adviser before filing a written petition.

### Dismissal

1. 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 2.250 requirement, and have an overall or WSU institutional grade point average also below the minimum 2.250 requirement. Students are not academically dismissed at the end of a semester unless they began that semester on academic probation.

2. Regardless of GPA, students may be dismissed from the Barton School for violations of the WSU Student Responsibility and Student Code of Conduct policies (see page 29 for excerpts). The entire Student Code of Conduct

is located online in section 8.05 of the *WSU Policies and Procedures Manual* at [wichita.edu/policiesprocedures](http://wichita.edu/policiesprocedures).

3. Additionally, students studying abroad or participating in an academic co-op or national student exchange will be subject to dismissal for failure to comply with the rules, regulations or professional standards governing the universities/colleges or companies/firms.

Students must apply to the Barton School of Business exceptions committee to be considered for readmittance in probationary status. Cases for readmission must be developed by the student after consultation with an adviser. The petition is then considered by the Barton School of Business exceptions committee and forwarded to the university's committee for final action.

Dismissal from the Barton School of Business 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.

### 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 pre-session, one course in any four-week summer session and two courses in any eight-week summer session. If a student is enrolled in both an eight-week and a four-week summer session, the maximum enrollment is two courses. Students on probation may not enroll in two-week 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 overall and WSU institutional 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 an overall and WSU institutional 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 is explicitly stated in each area.

Co-op placements must be approved by the student's faculty adviser. See the business coordinator in the cooperative education office for more information.

### Advising

The Business Advising Center provides academic advising to support students in finding their way through the Barton School of Business. The adviser is the link between the student and the university — with its faculty, policies and procedures. The focus of advising in the Barton School of Business is to help students progress toward their educational objectives and career goals.

### Types of Advising Assistance Available

**Program Planning.** Students are encouraged to outline an entire plan of study early in their academic career by using the suggested model programs for each of the majors and consulting with the advisers.

**Schedule Building.** Schedule building is the determination of specific courses a student should take in a given semester. Students should refer to the schedule of courses and catalog in consultation with a business adviser to determine a specific course of study. Selection of specific sections and of times for courses is the student's responsibility.

**Transcript Evaluation.** Two aspects of transcript evaluation are: (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 a business adviser, working in conjunction with the Office of the Registrar and the various departments within 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.

### Academic Honesty

The faculty of the Barton School of Business strongly endorse the statement on academic honesty appearing in the Student Code of Conduct. (See Student Code of Conduct and Student Academic Honesty beginning on page 29.)

Students accused of academic misconduct may appeal through the W. Frank Barton School of Business Dean's Office. The detailed appeal process may be found on the Barton School of Business website: [wichita.edu/business](http://wichita.edu/business).

### Graduation Requirements

#### Bachelor of Business Administration

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

*NOTE: If a minimum grade is required, it is listed after the course, example: (C-)*

1. Complete the Barton School of Business orientation requirement:

*For incoming freshmen:*

BADM 101 & 102, Becoming a Business Student I and II

*For transfer students:*

BADM 301, Transferring to the Barton School of Business

2. Complete WSU general education requirements and any additional university graduation requirements (see page 42).

3. Complete advanced standing requirements and exams:

MATH 111 College Algebra\* (C-)

MATH 144 Business Calculus\*

or MATH 242 Calculus I\*

ECON 231 Introductory Business Statistics

ECON 232 Statistical Software Applications for Bus.

BADM 160 Business Software (C-)

ACCT 210 Financial Accounting

ACCT 220 Managerial Accounting

ECON 201 Principles of Macroeconomics\*

ECON 202 Principles of Microeconomics\*

PHIL 125 Introductory Logic\*

BADM 201 Business Comm. (C-)

4. Complete business core requirements for the Bachelor of Business Administration degree:

PSY 111 General Psychology\*

or SOC 111 Intro. to Sociology\*

PHIL 306 Business Ethics\*

MKT 300 Marketing

ENTR 310 The Entrepreneurial Experience

IB 333 International Business\*

FIN 340 Financial Management I

DS 350 Intro. to Production & Operations Mgmt.

MGMT 360 Principles of Management

MIS 395 Management Info. Systems (MIS majors are not required to complete MIS 395)

BLAW 431 Legal Envir. of Business (For accounting majors: BLAW 635, Bus. Law for Accountants I; or BLAW 636, Bus. Law for Accountants II)

MGMT 681 Strategic Management (capstone)

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

6. Complete at least 50 percent of the total upper-division business credit hours at Wichita State University (excluding BADM 301).

7. Achieve a grade point average of 2.250 or better on (a) all college work, (b) all work taken at Wichita State, and (c) all upper-division business

courses taken at Wichita State (excluding BADM 301).

8. **Submit an application for degree through the myWSU portal before the deadline: October 1 for fall graduates, March 1 for spring and summer graduates. ([wichita.edu/businessadvising](http://wichita.edu/businessadvising)).**

9. Complete the Barton School exit survey (in the final semester at WSU).

\*Note: These courses may count towards the general education requirements. ECON majors may not use ECON 201 & 202 for general education requirements.

### Major/Minor Areas

Candidates for the Bachelor of Business Administration (BBA) degree must satisfy the additional requirements of one of the following curricular majors.

#### Accounting Major

*School of Accountancy*

*Accounting major.....27 total hrs.*

BADM 201 Business Communication

ACCT 310 Financial Accounting and Reporting: Assets

ACCT 320 Accounting for Decision Making and Control

ACCT 410 Financial Accounting and Reporting: Equities

ACCT 430 Intro. to Federal Income Tax

ACCT 560 Accounting Info. Systems

ACCT 610 Financial Accounting & Reporting: Special Entities and Complex Issues

ACCT 620 Accounting for Strategic Support and Performance Evaluation

ACCT 630 Taxation of Business Entities

ACCT 640 Principles of Auditing

Credit hours in ACCT 481 cannot be included in the accounting major. All accounting courses must be completed with a grade of C (2.000) or better. A minimum of 90 hours must be earned outside accounting.

#### Accounting Minor

A minor in accounting is available to any student whose major field or area of emphasis is outside of accounting. A minor in accounting consists of BADM 160, ACCT 210, 220, and 9 hours of upper-division accounting. Credit hours in co-op may not be counted toward the minor. At least 9 hours must be taken at WSU with a minor GPA of 2.250 or better. Accounting coursework must be completed with a grade of C (2.000) or better.

#### Economics Major

*Department of Economics*

*Economics major.....21 total hrs.*

*Required Courses.....6 hrs.*

ECON 301 Intermediate Macroeconomics

ECON 302 Intermediate Microeconomics

*Upper-division electives .....15 hrs.*

(at least 9 hrs. in economics, another 6 with adviser consent)

Credit hours in co-op may not be counted toward the economics major.

Note: ECON 201 and 202 cannot be used to meet general education requirements for ECON majors.

**Economics Emphasis in Real Estate**

Economics—Real Estate major .....21 total hrs.

Required Courses.....12 hrs.

- RE 310 Principles of Real Estate
- ECON 301 Intermediate Macroeconomics
- ECON 302 Intermediate Microeconomics
- ECON 340 Money and Banking or
- ECON 688 Urban Economics

Electives from the following .....9 hrs.

- RE 438 Real Estate Law
- RE 611 Real Estate Finance
- RE 614 Real Estate Appraisal
- RE 618 Real Estate Investment Analysis
- RE 619 Urban Land Development
- One economics elective, 300 or above

A maximum of 3 credit hours of RE 481 may be used in the economics 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 in economics consists of a minimum of ECON 201, 202 and 9 hours of upper-division economics. Co-op credits may not be counted toward the minor. At least 9 hours must be taken at WSU with a minor GPA of 2.250 or better.

**Entrepreneurship Major**

Department of Management

Entrepreneurship major .....21 total hrs.

Required courses.....12 hrs.

- ENTR 440 New Venture Feasibility Analy.
- ENTR 455 Entrepreneurial Finance
- ENTR 620 Growing and Managing an Entrepreneurial Firm
- ENTR 668 New Venture Development

Electives from the following:.....9 hrs.

- ENTR 481 Cooperative Education (1–3 hrs.)
- ENTR 491 Independent Study/Project (1–3 hrs.)
- ENTR 604 Franchise Management
- ENTR 605 Technology Entrepreneurship
- ENTR 608 Selling & Sales Force Mgmt.
- ENTR 690 Special Topics in Entrepreneurship
- HRM 466 Fundamentals of Human Resource Management
- MKT 404 Retail Management
- MKT 601 International Marketing
- RE 310 Principles of Real Estate

**Entrepreneurship Emphasis in Real Estate**

Entrepreneurship—Real Estate .....21 total hrs.

Entrepreneurship core requirements.....12 hrs.

- ENTR 440 New Venture Feasibility Analy.
- ENTR 455 Entrepreneurial Finance
- ENTR 620 Growing and Managing an Entrepreneurial Firm
- ENTR 668 New Venture Development

Real estate core requirements.....6 hrs.

- RE 310 Principles of Real Estate
- RE 619 Urban Land Development

Choose one upper-division real estate course.....3 hrs.

- RE 438 Real Estate Law
- RE 611 Real Estate Finance
- RE 614 Real Estate Appraisal
- RE 618 Real Estate Investment Analy.

**Entrepreneurship Minors**

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 nonbusiness majors that does not require advanced standing. Students in the Barton School are not eligible for the nonbusiness 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. Co-op credits may not be counted toward the minor. At least 9 hours must be taken at WSU with a minor GPA of 2.250 or better.

**Entrepreneurship Minor – Nonbusiness Students**

All WSU students completing a nonbusiness minor must complete the following:

- Overall GPA for minor must be 2.250 or better;
- Students must be a junior in good standing in their major (college); and
- Students must have completed 12 hours at WSU.

Required courses:.....6 hrs.

- ENTR 440 New Venture Feasibility Analysis
- ENTR 668 New Venture Development

Electives from the following:.....9 hrs.

- ENTR 455 Entrepreneurial Finance
- ENTR 491 Independent Study/Project
- ENTR 604 Franchise Management
- ENTR 605 Technology Entrepreneurship
- ENTR/MKT 608 Selling & Sales Force Mgmt.
- ENTR 620 Growing and Managing an Entrepreneurial Firm

**Finance Major**

Department of Finance, Real Estate & Decision Sciences

Finance major .....27 total hrs.

Required courses.....12 hrs.

- ACCT 310 Financial Accounting and Reporting: Assets
- ECON 340 Money and Banking
- FIN 440 Financial Management II
- FIN 620 Investments

Electives from the following .....15 hrs.

- FIN 450 Applied Financial Analysis
- FIN 610 Insurance & Risk Mgmt.
- FIN 611 Real Estate Finance
- FIN 618 Real Estate Investment Analy.
- FIN 622 Futures and Options Markets
- FIN 625 International Financial Mgmt.

FIN 631 Fixed Income Securities & Markets

FIN 632 Bank and Financial Institution Management

FIN 660 Cases in Finance

FIN 675 Spreadsheet Modeling for Decision Making

**Finance Emphasis in Real Estate**

Finance—Real Estate major .....24 total hrs.

Required courses.....12 hrs.

- RE 310 Principles of Real Estate
- ECON 340 Money and Banking
- FIN 440 Financial Management II
- RE 611 Real Estate Finance or
- RE 618 Real Estate Investment Analy.

Electives from the following .....9 hrs.

- RE 438 Real Estate Law
- RE 611 Real Estate Finance
- RE 614 Real Estate Appraisal
- RE 618 Real Estate Investment Analy.
- RE 619 Urban Land Development

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

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

**Finance Minor**

A minor in finance is available to any student whose major field or area of emphasis is outside of finance. A minor in finance consists of ACCT 310, FIN 340, 440, and 6 additional hours of upper-division finance courses. Co-op credits may not be counted toward the minor. At least 9 hours must be taken at WSU with a minor GPA of 2.250 or better.

**General Business Major**

General Business Major .....21 total hrs.

Required Courses:.....9 hrs.

- MKT 405 Consumer Behavior
- MGMT 460 Designing Effective Org.
- or MGMT 462 Leading and Motivating
- HRM 466 Fundamentals of HR Mgmt.
- or ECON 660 Labor Economics

IB elective, choose one from the following .....3 hrs.

- IB 561 International Econ. & Business
- IB 600 International Management
- IB 601 International Marketing
- IB 602 Legal Environ. of Int'l Business
- IB 625 Int'l. Financial Mgmt.

Directed Electives .....9 hrs.

Upper division business electives from the following business disciplines (must be spread over at least two disciplines): decision sciences, economics, entrepreneurship, finance, management information systems, or real estate.

Credit hours in co-op may not be counted toward the general business major.

Note: Other courses may be used as directed electives with a business adviser's consent.

### 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 minor in business administration consists of ACCT 210, ECON 201, 202, BLAW 431, FIN 340, MGMT 360 and MKT 300. At least 15 hours must be taken at WSU with a minor GPA of at least 2.250.

### Human Resource Management Major

#### Department of Management

Human Resource Mgmt. major .....21 total hrs.

Required Courses.....15 hrs.

HRM 466 Fundamentals of Human Resource Management

HRM 664 Labor Relations

HRM 666 Human Resource Staffing

HRM 668 Compensation

HRM 669 Training and Development

Electives from the following:.....6 hrs.

MGMT 462 Leading and Motivating

MGMT 460 Designing Effective Org.

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 or 491. A maximum of 3 credit hours of co-op may be used in the major.

### Human Resource Management Minor

A minor in human resource management is only available to students who are pursuing a degree in the Barton School of Business. A minor in human resource management consists of 15 hours, including HRM 466 and at least 2 of the following courses: HRM 664, 666, 668 and 669. Other courses that may be used to complete the minor include MGMT 463, 661 and 662; and ECON 660 and 663. All of the courses must be completed at WSU with a minor GPA of 2.250 or better.

### International Business Major

#### Department of Management

Students majoring in international business must make four 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. A minimum of 10 hours of an appropriate foreign language is required. Students who already have language skills beyond the elementary level should consult with an adviser.

3. **Minor.** International business majors must choose a functional area of business as a minor: accounting, economics, entrepreneurship, finance, human resource management, management,

management information systems, marketing, operations management or personal selling.

4. **International Experience.** International business majors are required to participate in an academic international experience. The preferred option is to study abroad at least one semester at a university in the student's regional emphasis. An alternative is a short-term academic international study tour to the student's regional emphasis.

International Business major.....21 total hrs.

Required Courses.....12 hrs.

IB 561 International Economics and Business

IB 600 International Management.

IB 601 International Marketing

IB 625 International Financial Mgmt.

Directed electives from the following .....9 hrs.

IB 400 International Purchasing

IB 481 Cooperative Education

IB 491 Independent Study/Project

IB 602 Legal Environment of Int'l. Bus.

IB 690 Special Topics in Int'l. Business

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 in POLS

POLS 395 U.S. Foreign Policy

POLS 524 Politics of Modern China

ANTH303 World Cultures or

ANTH515 China or

ANTH516 Japan: People and Culture

MKT 403 Marketing Research or

MKT 405 Consumer Behavior

History: History courses approved by an adviser

Language courses: 200-level and above

International experience: Students may count up to 6 credit hours of international experience toward their directed electives.

**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.

### International Business Minor

A minor in international business is available to any student whose major field or area of emphasis is outside of international business. Prerequisites:

ECON 201, 202, ACCT 210 and IB 333. A minor consists of IB 561, 600, 601, 625, and 3 hours of another upper-division international business elective approved by a business adviser, or study abroad, or an international study tour. Co-op credits may not be counted toward the minor. At least 9 hours must be taken at WSU with a GPA of 2.250 or better in all upper-division IB courses.

### Management Major

#### Department of Management

Management major .....21 total hrs.

Required Courses.....12 hrs.

MGMT 460 Designing Effective Org.

MGMT 462 Leading & Motivating

MGMT 463 Building Effective Work Teams

HRM 466 Fundamentals of HR Mgmt.

Electives from the following:.....9 hrs.

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.

MGMT 430 Business, Government & Society

MGMT 464 Communicating Effectively in Organizations

MGMT 661 Coaching, Developing and Mentoring

MGMT 662 Managing Workplace Diversity

MGMT 680 Making Effective Decisions

HRM 664 Labor Relations

HRM 666 Human Resource Staffing

IB 600 International Management

IB 601 International Marketing

IB 625 International Financial Mgmt.

IB 561 International Economics and Business

ENTR 440 New Venture Feasibility Analy.

ENTR 620 Growing and Managing an Entrepreneurial Firm

### Management Minor

A minor in management is available to any student whose major field or area of emphasis is outside of management. A minor in management consists of 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 a minor GPA of 2.250 or better.

### Operations Management Minor

A minor in operations management is available to any student whose major field or area of emphasis is outside of operations management. A minor in operations management consists of DS 350, 655, 675, and 6 hours of upper-division operations management courses chosen from DS 400, 660, 665, 690, MIS 600 and 750. At least 9 hours must be taken at WSU with a minor GPA of 2.250 or better.

## Management Information Systems Major

*Department of Finance, Real Estate & Decision Sciences*

Note: Management Information Systems (MIS) majors are not required to complete MIS 395 in the business core. Up to two non-MIS courses can be used toward the MIS major.

*Mgmt. Information Sys. major* ..... 24 total hrs.  
*Required Courses*.....12 hrs.

- MIS 310 Fundamentals of Business Application Development
  - MIS 325 Data Comm. and Computer Networks
  - MIS 600 Database Management Sys.
  - MIS 605 Systems Analysis and Design
- Choose one of the following: .....3 hrs.
- MIS 610 Dynamic Web Programming.
  - MIS 615 Adv. Business Application Dev.

- Choose one of the following: .....3 hrs.
- MIS 696 Management of the IS Function
  - DS 655 Project Management

- Electives from the following:* .....6 hrs.
- MIS 610 Dynamic Web Programming
  - MIS 611 Topics in Computer Networking
  - MIS 615 Adv. Business Application Dev.
  - MIS 690 Seminar in Selected Topics
  - MIS 750 Bus. Intelligence & Analytics
  - DS 660 Enterprise Systems
  - DS 665 Supply Chain Management
  - DS 675 Spreadsheet Mod. for Decision Making

## Management Information Systems Minor

A minor in management information systems is available to any student whose major field or area of emphasis is outside of management information systems (MIS). A minor in MIS consists of MIS 310, 325, 395, 600 and one class chosen from MIS 605, 610, 611, 615, 690, 750; DS 655, 660, 665, and 675. Co-op credits may not be counted toward the minor. At least 9 hours must be taken at WSU with a minor GPA of 2.250 or better.

## Marketing Major

*Department of Marketing*

*Marketing major* ..... 21 total hrs.  
*Required Courses*.....9 hrs.

- MKT 403 Marketing Research
  - MKT 405 Consumer Behavior
  - MKT 609 Marketing Programs
- Directed Electives from the following: .....6 hrs.
- MKT 404 Retail Management
  - MKT 407 Marketing for Service and Nonprofit Organizations
  - MKT 601 International Marketing
  - MKT 607 Promotion Management
  - MKT 608 Selling & Sales Force Mgmt.

*Approved Electives* ..... 6  
 Selected from approved list of courses; see academic adviser for list.

## Marketing Emphasis in Real Estate

*Marketing—real estate major* ..... 21 total hrs.  
*Marketing core* ..... 12 hrs.

- MKT 403 Marketing Research
  - MKT 405 Consumer Behavior
  - MKT 609 Marketing Programs
- One upper-division marketing course chosen from:
- MKT 407 Marketing for Service and Nonprofit Organizations
  - MKT 608 Selling & Sales Force Mgmt.
- Real estate core* ..... 9 hrs.
- RE 310 Principles of Real Estate
- Two upper-division real estate courses chosen from:
- RE 438 Real Estate Law
  - RE 611 Real Estate Finance
  - RE 614 Real Estate Appraisal
  - RE 618 Real Estate Investment Analy.
  - RE 619 Urban Land Development

## Marketing Minor

A minor in marketing is available to any student whose major field or area of emphasis is outside of marketing. A minor in marketing consists of MKT 300, 405, 609 and 6 hours of upper-division marketing courses chosen from MKT 403, 404, 407, 601, 607 and 608. Co-op credits may not be counted toward the minor. At least 9 hours must be taken at WSU with a minor GPA of 2.250 or better.

## Personal Selling Minor

A minor in personal selling is available to any student whose major field or area of emphasis is outside of personal selling. A minor in personal selling consists of MKT 300, 405, 608, COMM 302 and one of the following upper-division communication courses: COMM 311, 312 or 325. At least 9 hours must be taken at WSU with a minor GPA of 2.250 or better.

## Real Estate Emphasis

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

## Inter-College Double Major

An inter-college double major allows a student to complete an academic degree and major in one of the professional colleges (Barton School of Business, College of Education, College of Engineering, College of Fine Arts, College of Health Professions) along with a major in the College of Liberal Arts and Sciences. For details see page 28.

## 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.

Business courses numbered 300 to 499 are available only to juniors and seniors.

Graduate students may not take these courses for graduate credit.

Business courses numbered 500 to 699 are available 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.)

## Cross-listed Courses

Selected courses in the Barton School of Business are cross-listed because course content is suitable to more than one discipline. Every department or program which offers cross-listed courses provides a separate catalog description. Students may enroll in cross-listed courses to meet major and minor requirements, but credit may be earned under only one of the course listings.

## 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. Prerequisites: MATH 111, BADM 160.

**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. Prerequisites: ACCT 210, MATH 111, BADM 160.

### Upper-Division Courses

**ACCT 310. Financial Accounting and Reporting: Assets (3).** An in-depth study of the conceptual and technical aspects of financial accounting. Emphasizes recognition and measurement problems of income determination and balance sheet presentation. Covers asset accounting in depth. Prerequisites: completion of ACCT 210 with a minimum grade of B- (2.700), ACCT 220 with a minimum grade of C+ (2.300), MATH 111, BADM 160, advanced standing.

**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 with a minimum grade of B- (2.700), ACCT 210 with a minimum grade of C+ (2.300), MATH 111, BADM 160, advanced 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/NCr* only. Prerequisites: junior standing and 2.250 GPA.

**ACCT 491. Independent Study/Project (1-3).** Courses may be of two general types. The first consists of doing research, readings or other scholarly investigation in a subject area that is coordinated by a faculty member. The topic and scope would be mutually agreeable to the student and the faculty member. The second consists of doing a specific project for an organization, which might require the student to do research. The student may be embedded in an organization (either with or without pay) and under the direction of an organizational representative and a faculty member in order to accomplish a specific project. In either case, the course cannot be used to substitute for a regular departmental course. Repeatable for credit. Offered *Cr/NCr* only. Prerequisites: 2.750 GPA in accounting, junior standing, advanced standing, School of Accountancy consent.

#### Courses for Graduate/Undergraduate Credit

**ACCT 560. Accounting Information Systems (3).** A study of the content, design and controls of accounting systems, emphasizing the use of computers for processing financial data. Prerequisites: completion of ACCT 310, 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, hedges, 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-congruent strategies and incentives. Prerequisites: completion of ACCT 310, 320 with a grade of C (2.000) or better in each course, 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 Accountancy consent. Prerequisites: junior standing, advanced standing.

**ACCT 777. Review for Professional Examinations (1-6).** Preps 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/NCr* only.

Please see the WSU 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 the course. Required for advanced standing in the Barton School; Barton School students should take this course during their freshman year. Prerequisite: MATH 111 or equivalent, or concurrent enrollment in MATH 111.

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

**BADM 201. Business Communication (3).** Applied communication in a business context. Students acquire the following skills: absorbing critical business information from reading and listening; synthesizing, analyzing and prioritizing the information; selecting the right form of communication; deciding when it is appropriate to simply provide information, and when to offer options, recommend solutions and effective persuasion. Completion of BADM 201 with a grade of C or better is required for advanced standing in the Barton School of Business. Prerequisites: ENGL 101, 102, COMM 111 or equivalents with a grade of C or better.

**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 Courses

**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 479. International Student Exchange Program (1-18).** The International Student Exchange Program and the Barton School's relationships with partner business schools outside the U.S. encourage 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 Barton School advising center; after that the student meets with his or her adviser to request academic and course equivalent approval to attend the proposed university. Upon approval from the Barton School, enrollment may be completed. Enrollment in BADM 479 documents the status and tuition payment of the student enrolled in an international exchange for the duration of the residence at the collaborating university. At the end of the exchange semester, all coursework from the international university is transferred to WSU. At that time, the WSU equivalent transfer course(s) replace the BADM 479 hours of enrollment with only the International Student Exchange program designation remaining on the transcript. Repeatable for two enrollment periods or a maximum of 30 credit hours.

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

**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/Project (1–3).** Courses may be of two general types. The first consists of doing research, readings or other scholarly investigation in a subject area that is coordinated by a faculty member. The topic and scope would be mutually agreeable to the student and the faculty member. The second consists of doing a specific project for an organization, which might require the student to do research. The student may be embedded in an organization (either with or without pay) and under the direction of an organizational representative and a faculty member in order to accomplish a specific project. In either case, the course cannot be used to substitute for a regular departmental course. Repeatable for credit. Offered *Cr/NCr* only. Prerequisites: 2.750 GPA in the academic area, junior standing, advanced standing 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, junior standing, advanced standing.

**BLAW 635. Business Law for Accountants I (3).** Law of contracts, bailments, sales, commercial paper and secured transactions. Centers on the Uniform Commercial Code. Prerequisites: junior standing, advanced standing.

**BLAW 636. Business Law for Accountants II (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 WSU 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 390. Special Group Studies in Decision Sciences (1–3).** Repeatable with departmental consent. Prerequisite: 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/Project (1–3).** Courses may be of two general types. The first consists of doing research, readings or other scholarly investigation in a subject area that is coordinated by a faculty member. The topic and scope would be mutually agreeable to the student and the faculty member. The second consists of doing a specific project for an organization, which might require the student to do research. The student may be embedded in an organization (either with or without pay) and under the direction of an organizational representative and a faculty member in order to accomplish a specific project. In either case, the course cannot be used to substitute for a regular departmental course. Repeatable for credit. Offered *Cr/NCr* only. Prerequisites: 2.750 GPA in the academic area, junior standing, advanced standing and departmental consent.

#### Courses for Graduate/Undergraduate Credit

**DS 655. Project Management (3).** This 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 WSU Graduate Catalog for courses numbered 800 and above.

## Economics (ECON)

*Department of Economics*

#### 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 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, 202, junior standing, 2.250 GPA.

**ECON 491. Independent Study/Project (1–3).** Courses may be of two general types. The first consists of doing research, readings or other scholarly investigation in a subject area that is coordinated by a faculty member. The topic and scope would be mutually agreeable to the student and the faculty member. The second consists of doing a specific project for an organization, which might require the student to do research. The student may be embedded in an organization (either with or without pay) and under the direction of an organizational representative and a faculty member in order to accomplish a specific project. In either case, the course cannot be used to substitute for a regular departmental course. Repeatable for credit. Offered *Cr/NCr* only. Prerequisites: 2.750 GPA in the academic area, junior standing, advanced standing, departmental consent.

#### Courses for Graduate/Undergraduate Credit

**ECON 570. International Political Economy (3).** Cross-listed as POLS 570. Examination of policy decisions regarding exchanges of trade, money and labor that span national boundaries. Studies the interaction of politics and economics at the international level, as well as the modern history of the global economy. Economics often studies the material benefits and costs of different policies. Political science asks why these policies exist in the first place with a focus on who gets the benefits, who pays the costs, and how decisions about allocating benefits and costs are made.

**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 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, junior standing; for graduate students, the equivalent of ECON 201, 202.

**ECON 663. Economic Insecurity (3).** Cross-listed as AGE 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, junior standing; for graduate students, the equivalent of ECON 201, 202.

**ECON 672. International Economics and Business (3).** Cross-listed as IB 561. A survey of the economic foundations of international trade, finance and investment. Includes foreign exchange markets, regional integration, trade theories and instruments, U.S. trade policies and treaties, multinational companies, immigration, as well as differences in cultural, political and economic systems. Includes current events. Prerequisites: for undergraduate students, ECON 201, 202, junior standing; for graduate students, the equivalent of ECON 201, 202.

**ECON 674. International Finance (3).** Cross-listed as FIN 625 and IB 625. A study of the international financial and monetary system, emphasizing currency markets. Examines market instruments and techniques, including synthetic and derivative securities and their application to management of currency risk in international trade and finance. Prerequisites: for undergraduate students, ECON 201, 202, FIN 340 with a grade of C+ (2.300) or better, junior standing; for graduate students, the equivalent of ECON 201, 202.

**ECON 688. Urban Economics (3).** Cross-listed as PADM 688. A survey of the economic structure and problems of urban areas on both the microeconomic and macroeconomic levels. Stresses the application of regional economic analysis in the study of urban areas as economic regions. Prerequisites: for undergraduate students, ECON 201, 202, junior standing; for graduate students, the equivalent of ECON 201, 202.

**ECON 692. Group Studies in Economics (1–3).** Repeatable for credit with departmental consent. Prerequisites: for undergraduate students, ECON 201, 202, junior standing; for graduate students, the equivalent of ECON 201, 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, calculus, ECON 201, 202, junior standing; for graduate students, calculus and the equivalent of ECON 201, 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, 231 each

with a grade of C+ (2.300) or better, junior standing; for graduate students, the equivalent of ECON 201, 202, 231 each with a grade of C+ (2.300) or better.

**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, junior standing; for graduate students, the equivalent of ECON 201, 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, junior standing; for graduate students, the equivalent of ECON 201, 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 WSU Graduate Catalog for courses numbered 800 and above.

## Entrepreneurship (ENTR)

### Department of Management

#### Lower-Division Courses

**ENTR 160. Introduction to Entrepreneurship (3).** An introductory course for nonbusiness majors to familiarize students 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, COMM 111, junior 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 with a minimum grade of C+ (2.300), junior standing, advanced standing.

**ENTR 440. New Venture Feasibility Analysis (3).** Focuses on identifying the sources of business opportunities, understanding industry characteristics that are more or less favorable for new ventures, generating business ideas, evaluating the feasibility of business ideas, and investigating appropriate business models prior to formal business plan development. Prerequisite: ENTR 310, or junior standing for nonbusiness students.

**ENTR 455. Entrepreneurial Finance (3).** Cross-listed as FIN 455. 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, FIN 340, junior standing, advanced standing.

**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 2.250 GPA.

**ENTR 491. Independent Study/Project (1–3).** Courses may be of two general types. The first consists of doing research, readings or other scholarly investigation in a subject area that is coordinated by a faculty member. The topic and scope would be mutually agreeable to the student and the faculty member. The second consists of doing a specific project for an organization, which might require the student to do research. The student may be embedded in an organization (either with or without pay) and under the direction of an organizational representative and a faculty member in order to accomplish a specific project. In either case, the course cannot be used to substitute for a regular departmental course. Repeatable for credit. Offered *Cr/NCr* only. Prerequisites: 2.750 GPA in the academic area, junior standing, advanced standing, departmental consent.

#### Courses for Graduate/Undergraduate Credit

**ENTR 604. Franchise Management (3).** Examines franchising from both the perspective of the entrepreneur as a franchisee and as a franchisor. The student learns to evaluate a franchising opportunity from the franchisee perspective by completing a feasibility study of a currently available franchise and the potential for franchising. Areas covered include selecting a franchise, developing a franchised model and the legal issues associated with a franchise business. Replaced ENTR 690V effective fall 2012. Prerequisite: junior standing.

**ENTR 605. Technology Entrepreneurship (3).** The innovative transformation of ideas and technical knowledge (intellectual property) into commercially useful applications is a key driver of economic development. Students are immersed in the process of moving intellectual property from *mind to market*. Technology commercialization concepts, tools and techniques are applied to active technologies from university research, students, community and national research lab sources. Students evaluate the potential for intellectual property to be the basis for a startup enterprise or licensed to an existing business. Prerequisite: junior standing.

**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 with a grade of C+ (2.300) or better, MKT 405.

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

**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. New Venture Development (3).** Emphasizes the development of a comprehensive business plan around a unique product or service idea that satisfies a customer need or that solves a customer problem. Focuses upon conceptualizing a value proposition and business model for a new venture and validating each with customers and industry experts. 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 are also examined. Provides opportunity to pitch and present one's business concept and plan as well as learn how to evaluate the business ideas of others. Prerequisites: ENTR 440, senior standing.

**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 705. Technology Entrepreneurship (3).** Students explore issues surrounding the transformation of knowledge into commercially useful products, services and viable businesses. Course employs a hands-on experiential approach using current active technologies from the university, community or national research laboratories. Market validation, opportunity recognition, intellectual property protection (patents, copyright, trade secrets) and valuation are core learning elements employed in the commercial-potential evaluation process. Evaluation documents produced in the course are provided to intellectual property owners to aid moving a technology into commercial markets. Replaces ENTR 805 effective fall 2013. Prerequisite: junior standing.

**ENTR 706. Seminar in New Product and Technology Development (3).** Cross-listed as MKT 706. Provides a form to the function of idea commercialization. Examines the product development practices of successful, innovative companies and focuses on how customer needs can be translated into products and innovations. Students explore idea generation, market validation, prototype development, product concept testing, product launch strategies, post launch product evaluation and managing innovative teams. Students apply learning through developing and testing a product idea that solves a customer problem. Replaces ENTR 806 effective fall 2013.

**ENTR 750. Workshop in Entrepreneurship (1–4).** Prerequisite: junior standing.

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

**FIN 390. Special Group Studies in Finance (1–3).** Repeatable with departmental consent. Prerequisites: junior standing, advanced standing.

**FIN 440. Financial Management II (3).** Studies long-term financing decisions and financial planning. Also includes working capital management, mergers and acquisitions, and international financial management. Prerequisites: FIN 340 with a grade of C+ (2.300) or better, junior standing, advanced standing.

**FIN 450. Applied Financial Analysis (3).** Uses Microsoft Excel to apply and reinforce the concepts learned in FIN 340 and 440. Students completing this course have a strong functional knowledge of how to use Excel to analyze financial problems. Excel skills developed include using absolute and relative cell references to efficiently build spreadsheet models, correct use of Excel's built-in financial functions, and other related topics. Course is application oriented, using concepts from FIN 340 and 440 as subjects for the financial models built in class. In the process, students gain a new, deeper understanding of these concepts, and are exposed to more advanced versions of the theories developed in earlier classes. Replaces FIN 650 effective fall 2013. FIN 440 and 450 may be taken concurrently. Prerequisites: FIN 340, 440 with grades of C+ (2.300) or better, junior standing, advanced standing.

**FIN 455. Entrepreneurial Finance (3).** Cross-listed as ENTR 455. 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. In order for FIN 455 to count as a FIN elective for the finance major or minor, the student must have a C+ or better. Prerequisites: ENTR 310, 440, FIN 340 (with a C+ or better), 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/Project (1–3).** Courses may be of two general types. The first consists of doing research, readings or other scholarly investigation in a

subject area that is coordinated by a faculty member. The topic and scope would be mutually agreeable to the student and the faculty member. The second consists of doing a specific project for an organization, which might require the student to do research. The student may be embedded in an organization (either with or without pay) and under the direction of an organizational representative and a faculty member in order to accomplish a specific project. In either case, the course cannot be used to substitute for a regular departmental course. Repeatable for credit. Offered *Cr/NCr* only. Prerequisites: 2.750 GPA in the academic area, junior standing, advanced standing, 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. Covers the institutions and instruments used to finance residential and commercial properties, and provides essential knowledge and skills for students who are interested in a career as a commercial banker, mortgage banker or an analyst or investor in mortgage-related securities. Topics include fixed-rate and alternative mortgage instruments, financial analysis and decision making, residential mortgage underwriting, mortgage market regulations, primary and secondary mortgage market structure and institutions, and mortgage-backed securities. 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. Covers the tools and techniques used to evaluate the financial profitability of real estate investments, as well as real estate decisions affecting businesses. Students learn about discounted cash flow analysis of real estate, the relative advantages of different ownership structures, tax treatment of real estate investments and the effects of leverage. In addition, topics such as lease-versus-own analysis, sale-leasebacks and other corporate real estate issues are discussed. 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 are also 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 financial institution 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 660. Cases in Finance (3).** This case-centered course is designed as the capstone course for the finance major and provides an exploration of the problems and operations for which the financial decision maker is responsible, emphasizing current best practices for various types of financial analyses. Should be taken at the end of a finance student's degree program. Prerequisites: FIN 440 and two 600-level finance electives with a grade of C+ (2.300) or better in each, 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, junior standing.

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

## Human Resource Management (HRM)

### Department of Management

#### Upper-Division Courses

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

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

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

**HRM 491. Independent Study/Project (1–3).** Courses may be of two general types. The first consists of doing research, readings or other scholarly investigation in a subject area that is coordinated by a faculty member. The topic and scope would be mutually agreeable to the student and the faculty member. The second consists of doing a specific project for an organization, which might require the student to do research. The student may be embedded in an organization (either with or without pay) and under the direction of an organizational representative and a faculty member in order to accomplish a specific project. In either case, the course cannot be used to substitute for a regular departmental course. Repeatable for credit. Offered *Cr/NCr* only. Prerequisites: 2.750 GPA in the academic area, junior standing, advanced standing, 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 665. Employment Law (3).** Legal issues involved in hiring and employment, including lawful hiring practices, discrimination and harassment law, performance reviews, termination and other legal issues. Replaced BLAW 690E effective fall 2012. Prerequisite: junior 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 anti-discrimination legislation on selection practices as well as human resource planning, recruiting, job analysis and selection techniques, including testing and interviewing. Validation of selection techniques is covered. Prerequisites: HRM 466, junior standing, advanced standing.

**HRM 668. Compensation (3).** Approaches to 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. Prerequisites: HRM 466 or instructor's consent, junior standing, advanced standing.

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

Please see the WSU 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. Prerequisites: junior standing, advanced standing.

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

**IB 491. Independent Study/Project (1-3).** Courses may be of two general types. The first consists of doing research, readings or other scholarly investigation in a subject area that is coordinated by a faculty member. The topic and scope would be mutually agreeable to the student and the faculty member. The second consists of doing a specific project for an organization, which might require the student to do research. The student may be embedded in an organization (either with or without pay) and under the direction of an organizational representative and a faculty member in order to accomplish a specific project. In either case, the course cannot be used to substitute for a regular departmental course. Repeatable for credit. Offered *Cr/NCr* only. Prerequisites: 2.750 GPA in the academic area, junior standing, advanced standing, departmental consent.

### 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 with a minimum grade of C+ (2.300), 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, junior standing, advanced standing.

**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 WSU 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. Prerequisite: junior standing.

**MGMT 390. Special Group Studies in Management (1-3).** Repeatable with departmental consent. Prerequisite: advanced standing.

**MGMT 430. Business, Government and Society (3).** An examination of the environments in which business operates: economic, political, social/cultural, technological, international, ecological and legal. Includes business-government relations, social responsibility, business ethics, government regulation, legal framework and international business. Prerequisites: MGMT 360, junior standing, 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 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/Project (1-3).** Courses may be of two general types. The first consists of doing research, readings or other scholarly investigation in a subject area that is coordinated by a faculty member. The topic and scope would be mutually agreeable to the student and the faculty member. The second consists of doing a specific project for an organization, which might require the student to do research. The student may be embedded in an organization (either with or without pay) and under the direction of an organizational representative and a faculty member in order to accomplish a specific project. In either case, the course cannot be used to substitute for a regular departmental course. Repeatable for credit. Offered *Cr/NCr* only. Prerequisites: 2.750 GPA in the academic area, junior standing, advanced standing, 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 680. Making Effective Decisions (3).** Studies the theories of decision making with attention to 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 WSU 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 Business Application Development (3).** Uses a contemporary business programming language to teach business application development concepts in a visual programming environment. Designed for learning how to solve business problems by using event-driven programming. Prerequisites: 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, advanced standing.

**MIS 491. Independent Study/Project (1-3).** Courses may be of two general types. The first consists of doing research, readings or other scholarly investigation in a subject area that is coordinated by a faculty member. The topic and scope would be mutually agreeable to the student and the faculty member. The second consists of doing a specific project for an organization, which might require the student to do research. The student may be embedded in an organization (either with or without pay) and under the direction of an organizational representative and a faculty member in order to accomplish a specific project. In either case, the course cannot be used to substitute for a regular departmental course. Repeatable for credit. Offered Cr/NCr only. Prerequisites: 2.750 GPA in the academic area, junior standing, advanced standing, 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. Dynamic Web Programming (3).** Uses ASP.NET as the programming tool to teach Web application development. Includes HTML forms, server objects, 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 Web environments. Prerequisites: MIS 310, 600 each with a grade of C+ (2.300) or better, junior standing, advanced standing.

**MIS 611. Topics in Computer Networking (3).** Selected data communications and networking topics are examined in greater detail and depth. Students study the design, configuration, implementation, maintenance, management, troubleshooting and evaluation of selected networking technologies and software. Time is devoted to both concepts and hands-on exercises. Prerequisites: MIS 325 with a C+ (2.300) or higher, junior standing, advanced standing.

**MIS 615. Advanced Business Application Development (3).** Presents advanced concepts and techniques for business problem solving by developing software applications using a contemporary business programming language. Special emphasis is placed on object-oriented

programming approach. Topics include developing classes, using a multi-tiered approach toward application development, establishing database connection, working with data tables, and database processing. Prerequisites: MIS 310 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, advanced standing.

**MIS 750. Business Intelligence and Analytics (3).** Introduces design and implementation of business intelligence systems for tactical, managerial and strategic level decision making. Addresses how organizational data and analytics support business performance management. Prepares managers for developing and implementing digital performance dashboards to monitor business processes and make informed decisions. Replaces MIS 650 effective fall 2013.

Please see the WSU 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: ENGL 102, COMM 111, MATH 111, PHIL 125, ECON 201, 202.

**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 231 and 232, MKT 300 with a minimum grade of C+ (2.300), 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 with a minimum grade of C+ (2.300), 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 with a minimum grade of C+ (2.300), 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 with a minimum grade of C+ (2.300), 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, 2.250 GPA.

**MKT 491. Independent Study/Project (1–3).** Courses may be of two general types. The first consists of doing research, readings or other scholarly investigation in a subject area that is coordinated by a faculty member. The topic and scope would be mutually agreeable to the student and the faculty member. The second consists of doing a specific project for an organization, which might require the student to do research. The student may be embedded in an organization (either with or without pay) and under the direction of an organizational representative and a faculty member in order to accomplish a specific project. In either case, the course cannot be used to substitute for a regular departmental course. Repeatable for credit. Offered *Cr/NCr* only. Prerequisites: 2.750 GPA in the academic area, junior standing, advanced standing, departmental 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 with a minimum grade of C+ (2.300), junior standing, advanced standing.

**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 with a minimum grade of C+ (2.300), MKT 405.

**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 with a grade of C+ (2.300) or better, MKT 405.

**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 with a grade of C+ (2.300) or better, 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 706. Seminar in New Product & Technology Development (3).** Cross-listed as ENTR 706. Provides a forum to the function of idea commercialization. Examines the product development practices of successful, innovative companies and focuses on how customer needs can be translated into product concept testing, product launch strategies, postlaunch product evaluation, and managing innovative teams. Students apply learning through developing and testing a product idea that solves a customer problem.

**MKT 750. Workshop in Marketing (1–4).** Prerequisite: junior standing.

Please see the WSU 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).** A broad and fun 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 the legal and physical characteristics of real estate, zoning and other restrictions on land use, urban development and growth patterns, the real estate sales process, mortgage finance, appraisal, business location decisions, and the basics of real estate investment. (*Note:* non Barton School students do not need special permission to enroll in this course.) 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).** Provides in-depth coverage of the laws and regulations affecting real estate ownership and use. Particular attention is paid to Kansas statutes and case law. Topics covered include ownership interests, property conveyance, mortgages, title assurance, landlord-tenant relationships and public and private land-use controls. (*Note:* non Barton School students do not need special permission to enroll in this course.) Prerequisites: junior standing, RE 310 recommended for students with a declared emphasis in real estate.

**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, 2.250 GPA.

**RE 491. Independent Study/Project (1–3).** Courses may be of two general types. The first consists of doing research, readings or other scholarly investigation in a subject area that is coordinated by a faculty member. The topic and scope would be mutually agreeable to the student and the faculty member. The second consists of doing a specific project for an organization, which might require the student to do research. The student may be embedded in an organization (either with or without pay) and under the direction of an

organizational representative and a faculty member in order to accomplish a specific project. In either case, the course cannot be used to substitute for a regular departmental course. Repeatable for credit. Offered *Cr/NCr* only. Prerequisites: 2.750 GPA in the academic area, junior standing, advanced standing, departmental consent.

#### Courses for Graduate/Undergraduate Credit

**RE 611. Real Estate Finance (3).** Cross-listed as FIN 611. Covers the institutions and instruments used to finance residential and commercial properties, and provides essential knowledge and skills for students who are interested in a career as a commercial banker, mortgage banker or an analyst or investor in mortgage-related securities. Topics include fixed-rate and alternative mortgage instruments, financial analysis and decision making, residential mortgage underwriting, mortgage market regulations, primary and secondary mortgage market structure and institutions, and mortgage-backed securities. Prerequisites: FIN 340 with a grade of C+ (2.300) or better, junior standing, advanced standing.

**RE 614. Real Estate Appraisal (3).** Provides in-depth coverage of the methods used to estimate the value of residential and commercial properties. Students learn about the sales-comparison, cost and income-capitalization approaches for appraising real estate. (*Note:* non Barton School students do not need special permission to enroll in this course.) Prerequisite: junior standing. RE 310 recommended for students with a declared emphasis in real estate.

**RE 618. Real Estate Investment Analysis (3).** Cross-listed as FIN 618. Covers the tools and techniques used to evaluate the financial profitability of real estate investments, as well as real estate decisions affecting businesses. Students learn about discounted cash flow analysis of real estate, the relative advantages of different ownership structures, tax treatment of real estate investments and the effects of leverage; in addition, topics such as lease-versus-own analysis, sale-leasebacks and other corporate real estate issues are discussed. 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 focusing on the challenges and opportunities associated with real estate development projects. Class time is devoted to analyses of actual development projects, with numerous guest lecturers and field trips. Topics covered include market and feasibility analysis, site selection, development financing, ownership structures and marketing strategies. (*Note:* non Barton School students do not need special permission to enroll in this course.) Prerequisites: junior standing and RE 310, or admission into either the Master of Public Administration or Master of Business Administration program; students with a declared emphasis in real estate are *strongly* recommended to take as many other real estate classes as possible before taking RE 619.

**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 WSU Graduate Catalog for courses numbered 800 and above.

# College of Education

**Sharon H. Iorio, dean**  
**104 Corbin Ed. Center • (316) WSU-3300**  
**wichita.edu/education**  
 Shirley Lefever-Davis, senior associate dean

The WSU College of Education comprises four departments whose synergy provides a powerful understanding of life span development and academic innovation in living and learning. It prepares teachers, school professionals, school counselors, educational psychologists, exercise scientists, athletic trainers 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 (COEd) is accredited by:

- The Kansas State Department of Education (KSDE);
- The National Council for the Accreditation of Teacher Education;
- The National Association of School Psychologists;
- The Commission on Accreditation of Athletic Training Education; and
- The Commission on Sport Management Accreditation.

The college offers BA degree programs in teacher education, exercise science, sport management and athletic training.

The exercise science degree program prepares students for careers involving exercise physiology, health promotion, clinical exercise-related fields or graduate education. The Athletic Training Education Program (ATEP) prepares students for entry-level positions in the broad allied health field of athletic training.

The sport management degree program prepares students for careers in a variety of sport settings, including school and college athletics, major and minor league professional sports, fitness centers, recreation services, sporting goods, and sport service providers. The sport management program is a candidate for accreditation by the Commission on Sport Management Accreditation.

## Transfer Credit

Courses completed at a community college or four year institution of higher education other than 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. The COEd has formal agreements with Butler County Community College and Cowley College for 2+2 programs in



Courtesy Photos

which students complete two years at community college and the remaining two years at WSU.

## Degrees and Licensure Programs Offered

### Undergraduate

The college offers teaching and nonteaching programs leading to the bachelor's degree. For a list of programs and required coursework, visit the COEd website: [wichita.edu/education/programs](http://wichita.edu/education/programs).

### Bachelor's Degrees:

- athletic training
- exercise science
- sport management
- teacher education

### Initial Licensure Teaching Programs:

State teacher licensure preparation is offered at the early childhood, elementary, middle, secondary and PreK-12 levels.

The Kansas State Department 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 COEd recommends to KSDE those students who have met all approved program licensure requirements in the following programs:

- 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
- math
- physics
- speech & theatre\*

\*Art and music education degrees are awarded by the College of Fine Arts. French and Spanish may be awarded by the College of Liberal Arts & Sciences, speech/theatre may be awarded by the College of Fine Arts.

### Inter-College Double Major

An inter-college double major allows a student to complete an academic degree and major in one of the professional colleges (Barton School of Business, College of Education, College of Engineering, College of Fine Arts, College of Health Professions) along with a major in the College of Liberal Arts and Sciences. For details see page 28.

### Transition to Teaching Program

The Transition to Teaching program represents an alternative initial licensure program for those students possessing a bachelor's 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.

### Second Bachelor's Degree

A student may obtain a second bachelor's degree in the College of Education. This requires (1) admission to the College of Education, (2) completion of a minimum of 30 credit hours in a program not required for the first bachelor's degree, and (3) completion of all the requirements for graduation from the College of Education.

### Graduate

The College of Education offers two programs leading to the Master of Arts in Teaching (MAT): Transition to Teaching and Early Childhood Residency. Additional degrees include Master of Education (MEd) in counseling, curriculum and instruction, educational leadership, 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. Courses are available to support the continued academic and professional development of teachers and other school professionals. Endorsements, certificates and licensure are also offered at the graduate level.

### Endorsements

In addition to initial licensure, the COEd offers programs leading to endorsement in the following areas: district administrators, school counselors, early childhood teachers, English as a second language teachers, second content area teachers, special education teachers and reading specialists.

### Certificates

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

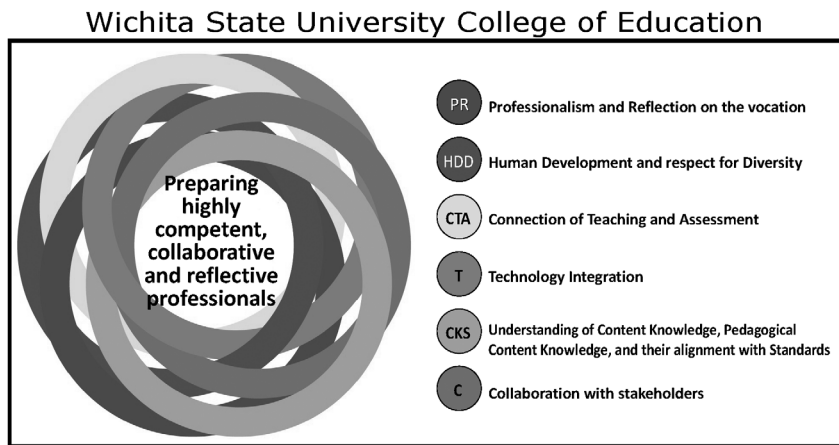
### Licensure

- Building Level
- District Level
- School Counselor
- School Psychologist

### Policies

#### Undergraduate Admission

Students who have declared a major in one of the programs in the College of Education and have the required GPA, 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.



### 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 COEd'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.

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

### 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 who are admitted into the College of Education are placed on probation at the end of any semester when either their cumulative or WSU GPA has fallen below the required 2.500. As long as a student's semester GPA is at least a 2.500, the student is eligible to take classes.

Students will be dismissed at the end of any semester on probation if they fail to earn a semester grade point average of 2.500. Students who have been dismissed for academic reasons should seek the council of the adviser to explore their options. A dismissed student whose GPA qualifies the student for admission to another college

at WSU may apply to the exceptions committee of that college.

### 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.

### WSU General Education Requirements

The College of Education conforms to the policy set forth by the division of academic affairs at Wichita State University. Many College of Education programs incorporate specific general education courses, which are required. Students should refer to the General Education Program Requirements section beginning on page 42 as well as their specific program check sheet.

### 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 completion of 12 credit hours with at least a 2.500 GPA, and 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.

## Graduation Requirements

For graduation from the College of Education, students must satisfactorily complete all program requirements, complete a minimum of 124 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 and WSU grade point average. Students should study any additional requirements that may be required for their particular area of study.

## 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. Basic skills courses:
  - a. ENGL 101 and 102;
  - b. COMM 111;
  - c. MATH 111;

*Note:* Above courses must be completed within a student's first 48 hours.

2. PSY 111;
3. STAT 370;
4. Thirty-five (35) hours of general education courses with a 2.750 GPA or above; (may include up to 10 hrs. of required coursework in the subject major);
5. Standardized Test Requirement

*Note:* A prospective teacher education 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 ten (10) years from the date of his or her application to the teacher education program:

- a. Preprofessional Skills Test (PPST). Minimum required scores—writing, 172; reading, 173; mathematics, 172; *or*
  - b. American College Testing Program (ACT). Minimum required scores—reading, 22; English, 22; mathematics, 22; *or*
  - c. College Assessment of Academic Proficiency (CAAP). Minimum required scores—writing, 55; reading, 56; mathematics, 53; *or*
  - d. College Basic Academic Subjects Examination (CBASE). Minimum required scores—English, 235; reading/writing, 235; mathematics, 235.
6. 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. The social studies minimum score is 235, the science minimum score is 235.

CBASE registration website: [registerblast.com/wsu](http://registerblast.com/wsu) for additional information: [arc.missouri.edu/](http://arc.missouri.edu/)

7. Introduction to the Education Profession, CI 270;
8. Grade Point Average (GPA) (a) Overall: 2.500; (b) WSU: 2.500.

The application packet is available at [wichita.edu/education/ess](http://wichita.edu/education/ess) and the Education Support Services office, 107 Corbin.

## Teacher Education Requirements

Professional education coursework, disciplinary or content area coursework, and extensive field experiences in professional development schools form the structure for all teacher education licensure areas.

### Field Experiences

All initial teacher preparation programs at Wichita State University employ a professional development school model that engages students in field experiences. Beginning in their freshman year, students may enroll in cooperative education where they are paid as school district employees while earning Wichita State University course credit. As students matriculate through the teacher education program, responsibilities during field experiences increase from observation in early field experiences to more active involvement in teaching responsibilities during the final semesters while enrolled in pedagogy coursework. In total, Wichita State University students spend a minimum of four semesters in supervised field experiences in private and/or public school settings.

### Early Childhood Unified (Birth through Grade 3)

Wichita State University provides Kansas state licensure preparation for birth through grade three through the early childhood unified program, preparing teachers to work with typical and atypical developing children birth through grade three in special day schools, inclusive settings, and public school regular education classrooms. The program of study contains courses in general education, teacher education and content courses in reading/language arts/literacy, mathematics, science, social studies, the arts and health/nutrition/physical education offered in the colleges of education, fine arts, and liberal arts and sciences.

### Elementary Education (Kindergarten through Grade 6)

The elementary major prepares students to teach in grades K–6, the range of grades covered in a typical elementary school. The program

of study covers general education, teacher education and content courses in reading/language arts, mathematics, science, social studies, the arts and health/nutrition/physical education offered in the colleges of education, fine arts, and liberal arts and sciences. The selection of courses is made with an academic adviser representing the College of Education and should begin as soon as possible.

### Middle Level (Grades 5–8)

The middle level programs prepare students 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. Each content area includes approximately 30 hours in the liberal arts and sciences beyond 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 the liberal arts and sciences beyond general education.

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

### PreK–12

The teacher education program includes PreK–12 licensure in foreign language, music, art and physical education. Students complete approximately 30 hours of content coursework in their content area beyond general education and professional education requirements.

*Check sheets that list the requirements are available in the Office of Education and Support Services (107 Corbin) and on the COEd website at: [wichita.edu/education/ess](http://wichita.edu/education/ess).*

## Requirements for Teacher Licensure

Upon completion of a bachelor's degree, the college may recommend teacher education candidates for Kansas state initial teacher licensure in one or more areas of teaching.

All WSU graduates applying for teacher licensure in Kansas are required to: (1) pass all examinations established by the Kansas State Department of Education: the Principles of Learning and Teaching (PLT), and the Praxis content(s) examination; (2) have a passing score on the Kansas Performance Teaching Portfolio; (3) meet 2.500 GPA requirements; and (4) receive a B- or better in all methods courses, practica and student teaching.

Teacher education students assume responsibility for knowing and fully understanding their respective program assessment plan and transition point requirements.

## Counseling, Educational Leadership, Educational and School Psychology (CLES)

The department of counseling, educational leadership, 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 leadership, the MEd in educational psychology, the Specialist in Education (EdS) in school psychology, and the Doctor of Education (EdD) in educational leadership.

## Counseling, Educational and School Psychology (CESP)

### Lower-Division Courses

**CESP 150. Workshops in Education (1–2).**

### Upper-Division Courses

**CESP 334. Introduction to Diversity: Human Growth and Development (2).** Provides a comprehensive overview of the theories, methods and content of child development. Learning should come from multiple sources: required and nonrequired 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. Learning Assessment and Evaluation Theory: Evidence-Based Instruction (3).** Prepares students to develop and modify instruction using student performance data and theories of learning. The psychology of learning is examined including such concepts as the nature of learning and memory, learning strategies, individual differences and social factors influencing learning. Principles of measurement and evaluation are examined including measurement instruments, observations, questioning strategies and grading plans. The reciprocal relationship between student performance data and instructional decisions is emphasized. 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

*Note: CESP 701 has been replaced by CLES 801.*

**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 CLES 801 or equivalent, or instructor's consent.

**CESP 750. Workshops in Education (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 placement that integrates theory with a planned and supervised professional experience. With adviser approval, a maximum of 4 credit hours may count to meet degree requirements. May be repeatable for credit with a maximum of 4 hours counting toward a graduate degree. Offered *Cr/NCr* only.

Please see the WSU 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 preselected specialized area of educational administration and supervision. Repeatable for credit with departmental consent. Prerequisite: departmental consent.

**EL 781. Cooperative Education (1-3).** Provides a work-related placement that integrates theory with a planned and supervised professional experience designed to enhance and complement the student's academic program. Offered *CR/NCr* only. With adviser's approval, educational leadership graduate students may use up to 3 hours of *S/U* and *Cr/NCr* credit toward the degree program or to fulfill prerequisite coursework for the EdD in educational leadership. Prerequisites: 3.250 GPA and 12 cumulative hours.

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

## Curriculum & Instruction (CI)

Undergraduate teacher education in curriculum and instruction is built on the guiding principles of the Conceptual Framework for Preparation of Teachers and Other School Personnel: (1) professionalism and reflection on the vocation; (2)

human development and respect for diversity; (3) connection of teaching and assessment; (4) technology integration; (5) understanding of content knowledge, pedagogical content knowledge and their alignment with standards; and (6) collaboration with stakeholders. The program includes general education, professional education, field experiences and a content major. The professional education experience begins with the Introduction to the Profession course and includes four full semesters of field experiences. 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.

Criteria for entering, matriculating and exiting the program, and for field experiences, graduation and licensure are clearly outlined and monitored by faculty and community professional advisory groups.

Requirements for these criteria are detailed under the Policies heading found at the beginning of the College of Education section of this catalog. 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** is being replaced on a trial basis by the following class:

**WSUD 101. Introduction to the University (3).** Designed especially for first-year students in their first semester at WSU, this course prepares students to succeed in college. Helps students form connections with each other, with faculty, with campus services and with the institution as a whole. It assists students in developing intellectually, emotionally and socially. It provides information and training about: college expectations, academic majors, careers and life planning; study skills and test taking, teaching and learning styles, respecting diversity of thought and culture, critical thinking, leadership, university policies and procedures, managing time and money, health and wellness, and the benefits of engagement in student organizations. Encourages and supports students as they adjust to college life and promotes reflective learning. In addition to other course projects, students create an individualized graduation plan through a collaborative process that involves academic advisers, the course instructor and peer mentors assigned to the course. Students who successfully complete this course have greater academic success and an improved rate of graduation compared to students who do not take this class.

**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 270. Introduction to the Education Profession (3).** Students examine the nature of teaching, the roles of collaboration, reflective practice, critical thinking, problem solving and inquiry. Students are engaged in activities using all of these tools. Includes electronic classroom observation component. This course replaced CI 271,

272. Prerequisites: successful completion of basic skills courses.

### 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; become familiar with related terminology (PT, IEP, ECSE, ADHD, EMR, Child Study Team, etc.), the steps used to evaluate and place students with special needs, and approaches that work to maximize the success of all students. Prerequisites: acceptance into the teacher education program and a professional development site program.

**CI 306. Clinical Field Experience: Special Education II (1–4).** An extension of CI 305. Prerequisites: acceptance into the teacher education program and a professional development site program.

**CI 307. Clinical Field Experience: Technology I (1–4).** Students work with teachers using technology as a teaching, learning and/or management tool; gain hands-on experience with computers (management systems, word processing, Internet/email, 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 provides 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 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 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, and for secondary only, completion of CI 424.

**CI 318. Core II Practicum: Literacy Strategies (1).** Provides opportunity for candidates to apply principles and strategies used in effective content literacy instruction, including vocabulary development, reading comprehension and evaluation of print/nonprint texts (including listening and viewing), and expression of ideas (speaking and writing) for a variety of audiences and purposes. Candidates develop multiple literacies as they design, implement and evaluate instruction that integrates purposeful 21st century technologies and meets the needs of culturally, developmentally and linguistically diverse students. Prerequisites: grades of B- or better in CI 320, 321, 423, 424, and CESP 334. Must also receive satisfactory or better rankings in all final observation and disposition evaluation forms by university supervisor/faculty member. Corequisites: CI 317, 427 and CESP 433.

**CI 319. Mathematical Investigations (3).** Based on the NCTM principles and standards for school mathematics focusing on process standards: problem solving, reasoning and proof, communication, connections and multiple representations. Students gain an active understanding of problem posing and problem solving in mathematics, as well as a familiarity with heuristics of problem solving. Course integrates appropriate educational technology tools and instructional strategies for students with special needs including English Language Learners (ELL). Prerequisite: MATH 501.

**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; 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; CESP 334.

**CI 323. Technology Seminar in Elementary Education (1).** Intended to help elementary and early childhood unified education majors develop the technology skills required to be an effective elementary classroom teacher in today's schools. Focuses on word processing, presentation skills, data collection and analysis, interactive and collaborative hardware and software, and the appropriate use of technology in curriculum development and classroom instruction. Replaced CI 431A effective fall 2011. Prerequisite: acceptance into

the teacher education program. Corequisites: CI 311, 320, 321; CESP 334.

**CI 324. Linguistics for Elementary Teachers (3).** In-depth study of the major theories of first and additional language acquisition/development/learning and their implications for K–6 classroom instruction. Prerequisite: acceptance into the teacher education program.

**CI 402E. Instructional Strategies, Assessment and Management (ISAM): Elementary Teaching Early Literacy K–2 (3).** Introduction to the instructional and assessment decisions and processes necessary for meeting curriculum goals and objectives in the K–2 classroom. Students become familiar with various management strategies for building a positive classroom environment in which young children can achieve at their full potential. Students understand instruction, assessment and classroom management in the context of teaching emergent literacy to foster language development, create optimal learning environments, assess and evaluate literacy learning; provide for language development, create optimal learning environments, assess and evaluate literacy learning and provide for differentiation and intervention strategies related to young students. Comprehensive, evidence-based primary literacy programs include modeled, guided and direct instruction; management and organization frameworks, skill and strategy teaching, integration of reading/writing, listening/speaking and viewing/visual representation; and technologies that enhance K–2 literacy instruction and facilitate professional productivity. Prerequisite: CI 323.

**CI 402I. Instructional Strategies, Assessment and Management (ISAM): Teaching Intermediate Literacy 3–6 (2).** Intermediate literacy theory for instructional and assessment decisions and processes necessary for meeting curriculum goals and objectives for the reader to learn in the 3–6 grade classroom. Students become familiar with various classroom management strategies for building a positive classroom environment in which all children can achieve at their full potential. Students understand instruction, assessment and management in the context of teaching the specific subject integrated with all subject areas. Prerequisites: CI 324, 402E.

**CI 402J. Instructional Strategies, Assessment and Management (ISAM): Elementary Social Studies (4).** Introduction to K–6 elementary social studies content, instructional strategies, assessment decisions and classroom management strategies necessary for meeting curriculum goals and objectives in the K–6 classroom. Students understand how effective social studies instruction, assessment and classroom management support student learning in the context of teaching social studies. Prerequisites: CI 311, 320, 321, 323; CESP 334.

**CI 402M. Instructional Strategies, Assessment and Management (ISAM): Elementary Mathematics (3).** Introduction to instructional strategies, assessment decisions and classroom management strategies necessary for meeting mathematics curriculum goals and objectives in the K–6 classroom. Students understand how effective instruction, assessment and classroom management support student learning in the context of teaching mathematics. Prerequisites: CI 319; CESP 433; MATH 501.

**CI 402S. Instructional Strategies, Assessment and Management (ISAM): Elementary Science (4).** Introduction to instructional strategies and processes, assessment decisions and classroom management strategies necessary for meeting science curriculum goals and objectives in the K–6 classroom. Students understand how effective science instruction, assessment and classroom

management support student learning in the context of teaching science. Prerequisites: CI 311, 320, 321, 323; CESP 334.

**CI 411A. Pre Student Teaching: Elementary Core II A (2).** Designed to allow teacher education candidates to spend an extended period of time in an appropriate elementary classroom working with a cooperating teacher to plan, implement and assess instruction aligned with state and/or district standards in early literacy and social studies content. Replaced CI 411J, CI 411S. Prerequisites: successful completion of CI 311, 320, 321, 323 and CESP 334.

**CI 411B. Pre Student Teaching: Elementary Core IIB (2).** Designed to allow teacher education candidates to spend an extended period of time in an appropriate elementary classroom working with a cooperating teacher to plan, implement and assess instruction aligned with state and/or district standards in intermediate literacy, math and science content. Replaced CI 411L and CI 411M. Prerequisites: successful completion of CI 317, 319, 324, 411A; MATH 501.

**CI 412. Pre Student Teaching: Middle Level (2). E-English/Language Arts, J-History/Government, M-Mathematics, S-Sciences.** Designed to allow students to spend an extended period of time in an appropriate classroom setting working with a cooperating teacher to plan, implement, manage and assess instruction aligned with state and/or district standards. Includes practice and application of appropriate educational technology tools and instructional strategies for culturally, developmentally and linguistically diverse students. Prerequisites: grades of B- or better in CI 317, 318, 427, and CESP 433; must also receive satisfactory or better rankings in all final observation and disposition evaluation forms by university supervisor/faculty member. Corequisites: appropriate CI 454 course(s).

**CI 413. Pre Student Teaching: Secondary Level (1–2). C-Journalism, E-English/Language Arts, J-History/Government, M-Mathematics, S-Sciences.** Designed to allow students to spend an extended period of time in an appropriate classroom setting working with a cooperating teacher to plan, implement, manage and assess instruction aligned with state and/or district standards. Includes practice and application of appropriate educational technology tools and instructional strategies for culturally, developmentally and linguistically diverse students. Prerequisites: grades of B- or better in CI 317, 318, 427, and CESP 433; must also receive satisfactory or better rankings in all final observation and disposition evaluation forms by university supervisor/faculty member. Corequisites: appropriate CI 454 course(s).

**CI 423. Instructional Strategies, Assessment and Management: Middle/Secondary General Methods (3).** Addresses concepts and skills related to classroom instruction, assessment, management and differentiation for middle and secondary level students. Course integrates appropriate educational technology tools and instructional strategies for culturally, developmentally and linguistically diverse students. Replaced CI 421 effective fall 2012. Prerequisites: admission to teacher education. Corequisites: CI 320, 321, 424; CESP 334.

**CI 424. Core I Practicum—General Methods (1).** Designed to allow students to spend time in an appropriate middle/secondary classroom setting working with a cooperating teacher to plan, implement, manage and assess instruction aligned with state and/or district standards. Includes practice and application of appropriate educational technology tools and instructional strategies for culturally, developmentally and linguistically diverse

students. Replaced CI 422 effective fall 2012. Prerequisite: admission to teacher education. Corequisites: CI 320, 321, 423; CESP 334.

**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 446. Student Teaching and Classroom Management Seminar: Elementary (2).** Students study and evaluate effective classroom management techniques. Students discuss experiences emerging from student teaching including the planning of school programs, organizing effective environments, assessing instructional strategies and assuming the responsibilities of a teacher. Prerequisites: CI 402E, 402I, 402J, 402M, 402S, 411A, 411B. Corequisite: CI 447 or 647A.

**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, 402S, 402M, all 411 experiences and acceptance into clinical practice. Corequisite: CI 446.

**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. Prerequisite: completion of the student teaching course with a grade of B or better.

**CI 452. Special Studies in Education (1–3).** Primarily for elementary and secondary education majors. Repeatable with adviser's consent.

**CI 454. Instructional Strategies, Assessment and Management: Middle Level/Secondary Content Specific Methods I (3). E-English/Language Arts, J-History/Government, M-Mathematics, S-Sciences.** Addresses concepts and skills related to classroom instruction, assessment, management and differentiation for middle and secondary level students. Course integrates appropriate educational technology tools and instructional strategies for culturally, developmentally and linguistically diverse students. Prerequisites: grades of B- or better in CI 317, 318, 427; CESP 433. Must also receive satisfactory or better rankings in all final observation and disposition evaluation forms by university supervisor/faculty member. Corequisite: appropriate pre student teaching practicum or practica (CI 412 or 413).

**CI 455. Instructional Strategies, Assessment and Management: Middle/Secondary Level Content-Specific Methods II (2). C-Journalism, E-English/Language Arts, J-History/Government, M-Mathematics, S-Sciences.** Engages middle/secondary level candidates in reflective experience emerging from the student teaching

experience, particularly issues surrounding management and motivation. Emphasizes mastery of content-specific concepts and skills related to classroom instruction, assessment, management and differentiation for middle and secondary level students. Course integrates appropriate educational technology tools and instructional strategies for culturally, developmentally and linguistically diverse students. Prerequisites: grades of B- or better in CI 412/413 courses and CI 454; must also receive satisfactory or better rankings in all final observation and disposition evaluation forms by university supervisor/faculty member. Corequisite: appropriate student teaching practicum (CI 461 or 471).

**CI 461. Student Teaching: Middle Level (5–10). E-English/Language Arts, J-History/Government, M-Mathematics, S-Sciences.** Designed to allow middle-level candidates to spend a semester in appropriate classroom settings co-teaching with a cooperating teacher. The candidate plans, implements, manages and assesses instruction aligned with state and/or district standards. The candidate and cooperating teacher, with the approval of the university supervisor, devises a plan for the candidate to assume full responsibility for the classroom(s) for a designated period of time during the semester. Includes practice and application of appropriate educational technology tools and instructional strategies for culturally, developmentally and linguistically diverse students. Prerequisites: grades of B- or better in appropriate CI 412 and 454 courses; must also receive satisfactory or better rankings in all final observation and disposition evaluation forms by university supervisor/faculty member. Corequisites: appropriate sections of CI 455.

**CI 471. Student Teaching: Secondary Level (10). C-Journalism, E-English/Language Arts, J-History/Government, M-Mathematics, S-Sciences.** Designed to allow secondary level candidates to spend a semester in an appropriate classroom setting co-teaching with a cooperating teacher. The candidate plans, implements, manages and assesses instruction aligned with state and/or district standards. The candidate and cooperating teacher, with the approval of the university supervisor, devises a plan for the candidate to assume full responsibility for the classroom(s) for a designated period of time during the semester. Includes practice and application of appropriate educational technology tools and instructional strategies for culturally, developmentally and linguistically diverse students. Prerequisites: grades of B- or better in appropriate CI 413 and 454 courses; must also receive satisfactory or better rankings in all final observation and disposition evaluation forms by university supervisor/faculty member. Corequisites: appropriate sections of CI 455.

**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.

**CI 490. Individual Studies in Education (1–3).**

#### Courses for Graduate/Undergraduate Credit

**CI 501. Professional Writing for Educators (1–3).** Helps students learn the writing skills, techniques and typical procedures required for developing manuscripts for possible publication in the field of education. Addresses manuscripts for a variety of publication outlets.

**CI 505. Science, Technology and Society (1).** 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. Stresses 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. Prerequisite: CI 270.

**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. Prerequisite: CI 270.

**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 614I (undergraduates only).

**CI 614I. ECU Pre Student Teaching: Infants, Toddlers and Families (2).** Candidates participate in pre student 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 a cooperating teacher, 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 614 (undergraduates only).

**CI 615. Learning and Reading Strategies (2-3).** Students are provided with an 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 expand their knowledge of strategies for helping culturally, developmentally and linguistically diverse students comprehend and construct meaning from texts using appropriate education technology and face-to-face instructional techniques. Includes extensive reading of classic and contemporary young adult literature in all genres. 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. Prerequisite: CI 603. Corequisite: CI 617P (undergraduates).

**CI 617P. ECU Pre Student Teaching: Preschool (2).** Candidates participate in pre student teaching field-based experiences in preschool settings that include children from ages 3-5. Candidates work with cooperating teachers, other professionals and a university supervisor to plan, implement and assess services and supports for young children. Prerequisite: CI 603. Corequisite: CI 617 (undergraduates).

**CI 621. Instructional Strategies: Middle-Level Education (3).** Students examine the middle grades school as an organization that takes its design specifically from the analysis of 10-14-year-olds, their characteristics and needs. Students examine many curricular and instructional alternatives for middle grades education and 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 402I, 402J, 402M, 402S, 411B, 614, 617, 617P, 703, 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, 703, successful completion of all Core I and II courses and assessments and acceptance into clinic practice.

**CI 654. Instructional Methods in Middle Level/Secondary Education (1-3). E-English, J-History, M-Mathematics, S-Science.** Acquaints current or potential educators with the concepts and skills necessary to meet the needs of students in middle level and/or secondary education. Focuses on content specific pedagogy as it relates to classroom instruction, management and assessment or adaptations. Prerequisite: teaching license or admission to the Master of Arts in Teaching.

**CI 701. Foundations of Education (2).** Students survey the various foundations areas, including philosophical, historical, social and comparative. This course is prerequisite to subsequent foundations courses. Prerequisite: graduate standing.

**CI 702. Introduction to Exceptional Children (3).** A survey of the characteristics of exceptional learners, including the handicapped and the gifted. Presents service delivery models and current practices. Fulfills certification requirements for teachers and serves as an introductory course in exceptionality for

special education majors, administrators and school psychologists. Prerequisite: bachelor's degree or departmental consent.

**CI 703. 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/diagnosed disabilities. Replaced CI 620. Prerequisites: CI 603, and at least one of the following: CI 402J, 402S, or 402M; or hold an elementary teaching license.

**CI 704. Assessment and Methods: K-1 (3).** Provides knowledge, skills and dispositions for candidates working with families and young children from kindergarten through first grade. Covers theory, methodology, screening, evaluation, assessment and instructional practices, including adaptations and modifications for all young children, including English language learners and those with and without delays/diagnosed disabilities. Prerequisite: CI 603. Corequisite: CI 748.

**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 outcome. 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, CLES 801.

**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 developing 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 are 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. Explores theories of intelligence, identification, characteristics and learning needs, special populations, curriculum differentiation and underachievement. Prerequisites: CI 311, 320, acceptance into teacher education or completion of a licensure program in general education. Corequisite: CI 719.

**CI 724. Introduction to Teaching Strategies for Students With Mild/Moderate Disabilities (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 culturally responsive models of instructional planning, (c) planning and delivering research-validated individualized instruction, (d) monitoring and basing instructional decisions

on performance data, (e) managing safe and conductive 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 4025 or 4545.

**CI 726. Information Technologies in the School Library I (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 nonprint materials in US MARC format, assigning Dewey Decimal classification numbers, assigning Library of Congress subject headings; sources for cataloging records, and 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 733. Assessment and Methods: Grades 2-3 (4).** Provides knowledge, skills and dispositions for candidates working with families and young children in

second and third grade. Covers theory, methodology, screening, evaluation, assessment and instructional practices, including adaptations and modifications for all young children, including English language learners and those with and without delays/diagnosed disabilities. Prerequisites: CI 603, 704. Corequisite: CI 749.

**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, 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. Introduction to Teaching Strategies for Students With Severe/Multiple Disabilities (3).** Examines introductory assessments, curriculum and instruction related to students with severe and multiple disabilities. Includes competencies for (a) developing individual educational plans, (b) assessment for culturally responsive models of instructional planning, (c) planning and delivering research-validated individualized instruction, (d) monitoring and basing instructional decisions on performance data, (e) managing safe and conductive learning environments, and (f) strategies for working with students with moderate to severe needs in general and special education environments. Prerequisites: CI 719, 720.

**CI 743. Transition to Teaching or Residency Internship I (1).** In the transition to teaching or residency licensure program, this internship replaces the required student teaching assignment for the purposes of licensure. Students in the transition to teaching program teach half time or more with a restricted license. Students in the residency program teach at least 20 hours per week under the supervision of a classroom teacher. *Transition to Teaching and Middle Level Secondary prerequisites:* CI 760A, employment by a school district or agency partnership and completion of program requirements for restricted teacher licensure or residency. Corequisite: CI 761A. *ECU Residency prerequisite:* admission to the program.

**CI 744. Transition to Teaching or Residency Internship II (1).** In the transition to teaching or residency licensure program, this internship replaces the required student teaching assignment for the purposes of licensure. Students in the transition to teaching program teach half time or more with a restricted license. Students in the residency program teach at least 20 hours per week under the supervision of a classroom teacher. *Transition to Teaching and MLS Residency prerequisites:* CI 743, 761A, employment by a school district or agency partnership and completion of coursework for restricted teacher licensure or MLS residency. Corequisite: CI 769. *ECU Residency prerequisite:* CI 603, 743. Corequisite: CI 614.

**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 774, 775, 776, 777.

**CI 748. Transition to Teaching or Residency Internship III (1).** In the transition to teaching or residency licensure program, this internship replaces the required student teaching assignment for the purposes of licensure. Students in the transition to teaching program teach half time or more with a restricted license. Students in the residency program teach at least 20 hours per week under the supervision of a classroom teacher. *Transition to Teaching and MLS Residency prerequisites:* CI 744, 769, employment by a school district or agency partnership and completion of coursework for restricted teacher licensure or residency. Corequisite: CI 848. *ECU Residency prerequisites:* CI 617, 744. Corequisite: CI 704.

**CI 749. Transition to Teaching or Residency Internship IV (1).** In the transition to teaching or residency licensure program, this internship replaces the required student teaching assignment for the purposes of licensure. Students in the transition to teaching program teach half time or more with a restricted license. Students in the residency program teach at least 20 hours per week under the supervision of a classroom teacher. *Transition to Teaching and MLS Residency prerequisites:* CI 748, employment by a school district or agency partnership and completion of coursework for restricted teacher licensure or residency. Corequisite: CI 849. *ECU Residency prerequisites:* CI 703, 748. Corequisite: CI 733.

**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 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, 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, 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 756. 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 certificate 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 (2).** Part of the core for a Master of Arts in Teaching. Participants conduct an initial examination of instructional methods, educational trends and effective practices for classroom management. Participants in the Alternative Certification program will have secured (or have been cleared to secure) a position as a para-educator in an accredited school system. Prerequisite: admission to the Transition to Teaching program or Middle Level Secondary Residency program.

**CI 761A. Instructional Planning and Technology (2).** Intended as part of the core for a Master of Arts in Teaching. Addresses issues in instructional planning including: identifying appropriate learner goals, aligning goals with accepted standards, models of instruction, integrating technology into instruction, adapting instruction to meet individual student needs, including English language learners, and differentiated instruction. Concurrent enrollment in CI 743, Transition to Teaching or Residency Internship I, or Cooperative Education is required. Prerequisites: students in this course will have secured a teaching contract or para-educator position in an accredited school system, will have met the prerequisites for admission to the Transition to Teaching or Middle Level Secondary Residency program at WSU and will have completed the summer induction course. 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 life-long learning are emphasized. Prerequisites: CI 760A and 767.

**CI 769. Instructional Strategies, Technology Integration and Assessment (2).** Intended as part of the core for a Master of Arts in Teaching (Transition to Teaching and/or Middle/Secondary Residency Programs). Allows the student to explore a variety of instructional strategies, technologies and assessment techniques while learning how to adapt these strategies and techniques to meet the individual needs of the students. 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, integrated media 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 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 research findings as well as causes for differential success among second-language learners. Includes discussions over readings, collaborative activities and presentations involving application of theory to teaching practice.

**CI 777. ESL Assessment (3).** Examines legal, theoretical and practical considerations in the ESL/BE students. Explores a variety of established principles of language assessment, procedures for identification of language-minority students and applications for these procedures and techniques. Covers level placement, monitoring of language development and exit criteria for language programs. Introduces the desirable qualities of tests: validity, reliability, practicality and beneficial backwash.

**CI 778. TESOL Content Test Preparation (3).** Provides teacher candidates preparation for the licensure exam through summaries of ESOL topics in (a) linguist theories, (b) examination of student language production, (c) research-based teaching strategies, (d) assessment procedures and techniques, (e) cultural and professional matters, and (f) test-taking strategies. Prerequisite: senior standing for undergraduate students.

**CI 780C. Technology and the Classroom: Young Children (2).** Teaches effective use of a variety of hardware, software and peripherals in early childhood classroom settings (ages 3–9, grades PreK–3). Prerequisites: entrance into teacher education, a valid teaching certification or instructor’s consent.

**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. Prerequisite: 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. Prerequisite: 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 graduate 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).** Investigate 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.

**CI 794. Diversity and Culture in a Global Society (3).** Equips students to become multi-instructional leaders who practice cultural and social justice. Provides students with the necessary concepts of diversity to scaffold a paradigm shift from cultural awareness to cultural diplomacy. Enables students to become successful global citizens in the globalized world. Prerequisite: graduate standing or departmental consent.

**CI 795. Change, Creativity and Innovation (3).** Focuses on key theories and elements related to organizational change, the creative process and innovation. Students develop an understanding of creative thinking processes to explore how those processes can impact change and lead to innovation. Prerequisite: graduate standing or departmental consent.

Please see the WSU 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 numerous practical experiences to interact with K-12 students in the public schools.

### 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.

Degree Requirements: a minimum of 124 total hours with an overall GPA of 2.500 in the major.

|   |             |
|---|-------------|
| <i>Required Courses</i> .....                         | <i>hrs.</i> |
| PHYS 213 General College Physics I.....               | 5           |
| CHEM 110 Preparatory Chemistry.....                   | 3           |
| HPS 113 Intro to Exercise Science.....                | 3           |
| HPS 117 First Aid and Community CPR...2               |             |
| HPS 229 Applied Human Anatomy*.....                   | 3           |
| HPS 301 Fun. of Physical Fitness & Ex.....            | 3           |
| HPS 328 Kinesiology & Biomechanics**.....             | 3           |
| HPS 313 Exercise and Sport Nutrition.....             | 3           |
| HPS 331 Care & Prev. of Athletic Injuries...3         |             |
| HPS 440 Concepts in the Prescription of Exercise..... | 3           |
| HPS 460 Motor Learning.....                           | 3           |
| HPS 470 Fitness Practicum.....                        | 3           |
| HPS 490 Physiology of Exercise.....                   | 3           |
| HPS 495 Internship in Exercise Science.....           | 8           |
| HPS 541 Strength Training and Cond.....               | 3           |



|           |  |      |
|-----------|--|------|
| HPS 762   | Statistical Concepts in Human Performance Studies*** | 3    |
| CI 541    | Desktop Publishing I                                 |      |
| or PC 105 | Intro to Computers and App.                          | 3    |
| Total     |  | (57) |

\*BIOL 223 can substitute for HPS 229

\*\* PHYS 213 is recommended, but not required prerequisite

\*\*\*STAT 370, or CESP 704 can substitute for HPS 762

### Minor in Exercise Science

The exercise science minor provides minimum knowledge for careers in the exercise industry. It consists of 18 credit hours including the following courses: HPS 113, 229, 301, 328, 440 and 490; at least 12 hours must be taken at WSU. A minimum GPA of 2.500 in the minor courses is required.

### 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 proficiencies 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 pre-professional 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) is the certifying agency for the National Athletic Trainers' Association (NATA). The mission of the BOC is

to provide exceptional credentialing programs for health care professionals to assure the protection of the public. 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. Athletic training students are eligible to sit for the BOC certification exam upon graduation from a CAATE accredited program.

#### 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 website for athletic training ([wichita.edu/athletictraining](http://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:

- Letter of interest;
- Complete application;
- Three letters of recommendation; and
- 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:

- Completed health examination;
- Immunization verification;
- Personal background check;
- Record of work or volunteer hours;
- Signed technical standards;
- Current CPR certification;
- Purchase of liability insurance;
- Personal interview with Athletic Training Advisory Committee and ATEP faculty; and
- Completed core courses with a B average or better:
  - HPS 114 – Intro. 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

Transfer students are considered on a case-by-case basis. Students wishing to transfer must have completed at least one year of athletic training experience at the college level, completed a care and prevention course or equivalent, a taping section or lab and have clinical hours endorsed by a supervising athletic trainer. In addition, the transfer student must have completed all admission requirements for the preprofessional and professional phase of the program. Students should contact the ATEP coordinator if they have any questions.

#### 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:

|   |           |
|---|-----------|
| Course .....  | hrs.      |
| <b>Basic Skills Core:</b> .....                                 | (12 hrs.) |
| ENGL 100 English Composition, or                                |           |
| ENGL 101 College English I .....                                | 3         |
| ENGL 102 College English II .....                               | 3         |
| COMM 111 Public Speaking .....                                  | 3         |
| MATH 111 College Algebra .....                                  | 3         |
| <b>Fine Arts Elective:</b> .....                                | (3 hrs.)  |
| Fine arts course .....  | 3         |
| <b>Humanities:</b> .....  | (9 hrs.)  |
| One humanities introductory course .....                        | 3         |
| One humanities introductory course .....                        | 3         |
| One fine arts/humanities further study course ..                | 3         |
| <b>Social and Behavioral Sciences:</b> .....                    | (9 hrs.)  |
| PSY 111 General Psychology .....                                | 3         |
| SOC 111 Intro. to Sociology .....                               | 3         |
| S/B further study course .....                                  | 3         |
| <b>Mathematics and Natural Sciences:</b> .....                  | (12 hrs.) |
| BIOL 210 General Biology I .....                                | 4         |
| CHEM 211 General Chemistry I .....                              | 5         |
| Further study course .....                                      | 3         |
| <b>HPS and Athletic Training Core:</b> .....                    | (69 hrs.) |
| BIOL 223 Human Anatomy & Physiology .....                       | 5         |
| HPS 114 Intro to Athletic Training .....                        | 3         |
| HPS 130 Taping and Bandaging in Athletic Training .....         | 1         |
| HP 203 Medical Terminology .....                                | 2         |
| HPS 229 Applied Human Anatomy .....                             | 3         |
| HPS 301 Fundamentals of Physical Fitness and Exercise .....     | 3         |
| HS 301 Clinical Pharmacology .....                              | 3         |
| HPS 317 CPR/AED/First Aid for the Professional Rescuer .....    | 2         |
| HPS 328 Kinesiology & Biomechanics .....                        | 3         |
| HPS 331 Care & Prevention of Athletic Injuries .....            | 3         |
| HS 331 Prin. of Diet and Nutrition .....                        | 3         |
| HPS 350 Upper Extremity Assessment .....                        | 4         |
| HPS 351 Lower Extremity Assessment .....                        | 4         |
| HPS 352 General Medical Conditions in Athletics .....           | 3         |
| STAT 370 Elementary Statistics, or                              |           |
| HPS 762 Statistical Concepts in Human Performance Studies ..... | 3         |

|  |            |
|--|------------|
| HPS 440 Concepts in the Prescription of Exercise .....     | 3          |
| HPS 442 Administration of Athletic Training Programs ..... | 3          |
| HPS 450 Therapeutic Modalities .....                       | 3          |
| HPS 451 Therapeutic Exercise .....                         | 3          |
| HPS 460 Motor Learning .....                               | 3          |
| HPS 490 Physiology of Exercise .....                       | 3          |
| HPS 541 Strength Training & Conditioning .....             | 3          |
| PC 105 Introduction to Computers or                        |            |
| CI 541 Desktop Publishing I .....                          | 3          |
| <b>Practicum:</b> .....                                    | (12 hrs.)  |
| HPS 220 Athletic Training Practicum I .....                | 2          |
| HPS 221 Athletic Training Practicum II .....               | 2          |
| HPS 320 Athletic Training Practicum III .....              | 2          |
| HPS 321 Athletic Training Practicum IV .....               | 2          |
| HPS 420 Athletic Training Practicum V .....                | 2          |
| HPS 421 Athletic Training Practicum VI .....               | 2          |
| <b>Total Credit Hours</b> .....                            | (126 hrs.) |

**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.

**Human Performance Studies (HPS) courses**

**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 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 152. Special Studies in Health, Physical Education and Recreation (1-3).** Group activities in preselected areas of physical education, exercise science or sport management. Offered Cr/NCr only.

**HPS 180. Fitness Instructor Training (2).** Designed to produce group exercise instructors who can teach floor aerobics, cardio-kickboxing, step aerobics, cycling, muscle pump, water aerobics and more. Does *not* include Yoga or Pilates. A nationally-recognized certification test is administered at the conclusion of the course. Prerequisites: *must* have previous experience participating in group exercise classes. Adult CPR certification is required before taking the certification tests.

**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 (2).** 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 (2).** 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).** 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, 229 or equivalent.

**HPS 306. Water Safety Instructor (2). 1R; 2L.** Meets American Red Cross standards for certification in Emergency Water Safety and Water Safety Instructor Training. Students must show proficiency at the American Red Cross Swimmer skill level within three weeks after enrolling. Prerequisite: 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 are also studied. Prerequisites: HPS 201A, B, C, D, 460; admission to teacher education, 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 or 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 313. Exercise and Sport Nutrition (3).** Study of the role of nutrition as a means to enhance performance in exercise and sport. Topics include principles of healthful nutrition, energy metabolism and nutrients, regulation of metabolism by macro and micro nutrients, weight control and analysis of the validity and safety of proposed nutritional ergogenic aids. In addition, regulatory (FDA and FTC) aspects of sports nutrition are reviewed.

**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 (2).** 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 (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 324. ISAM: Physical Education in Elementary grades PreK–5 (3).** Provides the skills and knowledge for teacher candidates to successfully teach elemen-

tary physical education grades PreK–5. Instruction for teaching techniques, teaching progression, skills analysis and development are provided. Students learn effective, authentic assessment of student learning in physical education. There is a study of primary and intermediate grades. Management techniques and age-appropriate activities are practiced. Learning styles are studied and a variety of learning strategies are studied and implemented. Prerequisite: admission to teacher education program.

**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 334. Assessment and Technology for PreK–12 Physical Education (3).** Provides teacher candidates the skills and knowledge needed to learn effective, authentic assessment of student learning in physical education in addition to providing the skills and knowledge to effectively implement technology into PreK–12 health and physical education classes. 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. Technology skills associated with HPER disciplines are developed. Replaces HPS 332, 333 effective fall 2013. Prerequisites: admission to teacher education program and completion of Block 1 of 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 observations and physical activity with persons impaired, disabled or handicapped. Prerequisites: HPS 229 or equivalent, admission to teacher education and completion of pre-professional 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 500.

**HPS 420. Athletic Training Practicum V (2).** 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 (2).** Covers clinical skills and proficiencies relating to organizational, administrative and management skills that formulate the administrative aspects of athletic training. Prerequisites: 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 classroom majors with organizational skills and instructional materials. Not open to students in physical education. Prerequisite: admission to teacher education.

**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 cardiorespiratory 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; 2.500 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 classes 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, 472.

**HPS 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.

**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 BA in exercise science. Students spend the equivalent of full-time employment in an appropriate agency for one full semester. Prerequisites: senior standing, departmental consent, HPS 470, 2.500 minimum GPA overall and for major, admission to College of Education.

**Courses for Graduate/Undergraduate Credit**

**HPS 510. Coaching Principles (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. Prerequisite: completion of

Core I of teacher education program if undergraduate standing, graduate standing at WSU, or instructor's consent.

**HPS 541. Strength Training 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 715. Body Composition and Weight Management (3).** A comprehensive coverage of the theoretical and scientific aspects of body composition assessment and current strategies for effective weight management. The limitations and usefulness of reference and field methods for assessing body composition in research, clinical and health/fitness settings are addressed. The overall intent of this course is not only to provide classroom-based theory regarding body composition assessment, but also hands-on experience and training in applying the different assessment techniques.

**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. Statistical Concepts in Human Performance Studies (3).** Covers descriptive statistics, elementary probability, distributional properties, one- and two-population mean and variance comparisons, ANOVA, linear regression and correlations. In addition, more advanced principles in parametric and nonparametric statistics are emphasized.

**HPS 780. Physical Dimensions of Aging (3).** Cross-listed as AGE 780. 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 degreebound student must be filed before approval of enrollment for cooperative education graduate credit. May be repeated for credit. A maximum of 3 hours (for nonthesis option) or 6 hours (for thesis option) may count toward the graduate degree. Offered Cr/Ncr 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 WSU Graduate Catalog for courses numbered 800 and above.

**Sport Management (SMGT)**

Wichita State's Bachelor of Arts 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 in Sport Management degree must meet all admission requirements by the WSU College of Education. In addition, they must complete an orientation program embedded in SMGT 112.

**Requirements**

|           |  |
|-----------|--|
| Course    | .....hrs.  |
| SMGT 112  | Intro. to Sport Mgmt. ....3  |
| SMGT 210  | Practicum — Sport Admin. or SMGT 447B Internship— Sport Admin. with a corresponding 9 hour adjustment in elective hours .....3 or 12 |
| SMGT 426  | Sport Public Relations.....3   |
| SMGT 428  | Sport Finance .....3   |
| SMGT 446  | Pre Internship Seminar .....1  |
| SMGT 447A | Internship in 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 Prg. ....            | 3 |
| SMGT 475 | Sport in American Culture .....                  | 3 |
| SMGT 520 | Sport Tournament & Event .....                   | 3 |
| SMGT 525 | Sport Facility Management .....                  | 3 |
| SMGT 545 | Sport Governance & Policy .....                  | 3 |
| CI 541   | Desktop Publishing I.....                        | 3 |
| ECON 611 | Economics of Sport.....                          | 3 |

### Minor in Sport Management

The sport management minor provides minimum knowledge for careers in the sport industry. It consists of 18 credit hours including SMGT 112 and five of the following courses: SMGT 426, 428, 461, 465, 466, 475, 520, 525, 545. At least 12 hours must be taken at WSU. A minimum GPA of 2.500 in the minor courses is required.

### Lower-Division Courses

**SMGT 112. Introduction to Sport Management (3).** Introduction to the discipline of sport management and its vast array of career opportunities. Successful management is required in all segments of the sport industry whether professional or amateur, private or public, school-related or club, community or national, and at all levels of competition.

**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. Pre Internship 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, 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).** Examines both the theory and the practical application of sales and promotions in the sports industry. Students learn a process for sales and use that process in a real-life sales exercise. Students are introduced to methods of sales management. There is required reading followed by weekly quizzes over the reading. The class conducts sales projects for local sports organizations for practical

experience and application of theory. A detailed sales presentation is required as part of the final project.

**SMGT 520. Sport Tournament and Event Management (3).** Examines the processes, methods and practices involved in sport event management, including sport tournaments, sports team events and individual sporting events. Students completing this class should feel prepared to initiate and execute a sport event on their own. Prerequisite: SMGT 112 or graduate standing.

**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 or graduate standing.

**SMGT 540. Seminar in Sport Management (3).** Integrates the knowledge base of sport and business as it applies in the practical setting. Prerequisites: 2.500 GPA, junior, senior or graduate standing.

**SMGT 545. Sport Governance and Policy (3).** Discusses the fundamental aspects of governance and management within any sport-related entity. Addresses management, marketing, policy development, facility management, human resources, legal issues, budgeting/finance, purchasing and communication.

**SMGT 590. Independent Study (1–3).** Prerequisite: departmental consent.

**SMGT 711. 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 degreebound student must be filed before approval of enrollment for cooperative education graduate credit. May be repeated for credit. A maximum of 3 hours (for nonthesis option) or 6 hours (for thesis option) may count toward the graduate degree. Offered *Cr/NCr* only.

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

## Music Education

See College of Fine Arts, music education, beginning on page 108.



# College of Engineering

**Vishwanath Prasad, interim dean**  
 100 Wallace Hall • (316) WSU-3400  
[wichita.edu/engineering](http://wichita.edu/engineering)

**Steven Skinner, associate dean, graduate education and assessment**

**Lawrence Whitman, associate dean, undergraduate education**

**Samantha Corcoran, assistant dean**

Modern technological developments in engineering have brought about considerable change in the College of Engineering's curriculum at Wichita State University. The experience-based 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 science, industrial and manufacturing, and mechanical. In addition, the College of Engineering offers a Bachelor of Science in BioEngineering, which is a multidisciplinary program among several departments.

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 and Certificates Offered

### Undergraduate

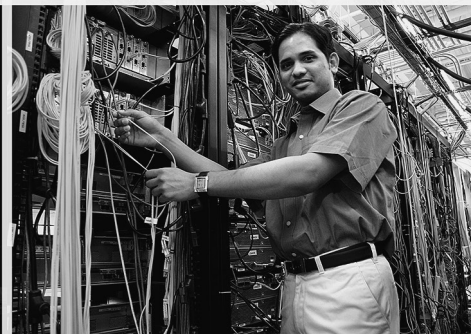
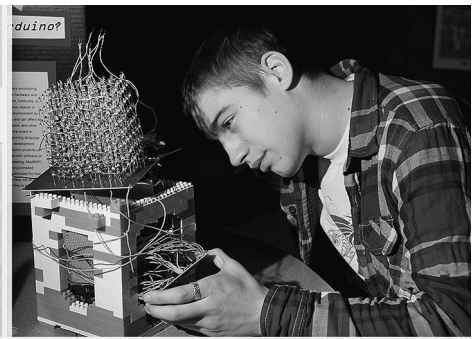
The Bachelor of Science degree programs in aerospace engineering, computer engineering, electrical engineering, industrial engineering, manufacturing engineering, and mechanical engineering are accredited by the Engineering Accreditation Commission of ABET, <http://www.abet.org>.

Bachelor of Science degrees are also offered in computer science, bioengineering, and engineering technology.

### Graduate

A Master of Science (MS) is offered in aerospace, computer networking, computer science, 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,



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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, and design for manufacturing. A certificate in enterprise systems and supply chain management is offered jointly with the Barton School of Business, and a graduate certificate in engineering education is offered jointly with the College of Education.

### 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. 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. 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 approval of the student's department chairperson.

#### Academic Dismissal

Students on academic probation are subject to academic dismissal from the College of Engineering if they fail to attain a cumulative or overall WSU grade point average of 2.000 in the next 12 hours attempted, or a cumulative major grade point

average of 2.000 in the next 9 hours attempted in their major field, and the GPA for the most recent semester or summer session is below 2.000.

## Academic Advising and Enrollment

Students in the College of Engineering are required to receive academic advising from their adviser or department chair before enrolling. Engineering students are strongly urged to register early for courses during published registration dates to avoid closed classes. Late registration or adding engineering courses will be allowed only during the first week of a regular semester or the first three days of a summer session.

Students in the College of Engineering may not enroll in more than 20 hours per semester during the academic year. Summer session enrollments are limited to a maximum of 5 hours for each four-week session or 10 hours during the eight-week session. Students who have completed at least 24 hours at WSU with a WSU grade point average of 3.000 or higher may petition their department chairperson for permission to enroll in excess hours.

Students who are employed full or part time should, in consultation with their academic adviser, reduce their enrollment to a level appropriate to their work load.

Only students admitted to the College of Engineering or the Graduate School will be allowed to enroll in engineering courses at the 300 level or above. Because there are legitimate reasons for qualified nonengineering students to enroll in engineering courses at the 300 level or above, the academic dean will consider petitions for exceptions to the preceding statement.

## Transfer Credit

Students wishing to receive transfer credits for engineering courses taken at other institutions prior to admission to WSU must submit transcripts, 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 2.000 or better on a 4.000 scale.

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) ABET requirements. Guidelines for these are given below:

### WSU General Education Requirements

1. Basic skills courses: All WSU students must complete three courses in communication skills: ENGL 101 or 100 (for non-native speakers), ENGL

102 and COMM 111, each with a grade of C or better and within their first 48 hours.

2. Four introductory courses in the disciplines, to include one course each in the divisions of fine arts, humanities, and social and behavioral sciences, and an additional course in a different discipline in either humanities or social and behavioral sciences.

3. Two additional courses that are not introductory. One is to be a further study course in one of the disciplines in the division in which the introductory courses are taken. The second additional course is PHIL 385 for engineering students, or PHIL 354 for students in computer engineering and computer science.

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 for engineering students, while PHIL 354 is required for students in computer engineering and computer science.

2. Mathematics and natural sciences: 32–34 hours of mathematics and natural sciences must be completed, as prescribed by each department.

3. Engineering 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 I (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 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 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 website.

## Inter-College Double Major

An inter-college double major allows a student to complete an academic degree and major in one of the professional colleges (Barton School of Business, College of Education, College of Engineering, College of Fine Arts, College of Health Professions) along with a major in the College of Liberal Arts and Sciences. For details see page 28.

## ABET Requirements

ABET, <http://www.abet.org>, 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 introductory courses. Engineering topics include subjects in the engineering sciences and engineering design.

All engineering students follow about the same general curriculum for the first two years. All engineering programs of study are designed to meet ABET criteria as well as satisfy WSU general education requirements, and all courses should be selected with the assistance of a College of Engineering 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 student records office two semesters preceding their final semester.

**Graduation grade point average requirements:** The candidate for a degree must attain a 2.000 grade point average in each of the following categories:

1. All college and university work attempted (cumulative grade point average);
2. All work attempted at WSU (WSU grade point average); 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 preprofessional work periods with classroom periods during the junior and senior years. The two most typical plans are illustrated in the following table.

| Year     | 3      | 4      | 5   |
|----------|--------|--------|-----|
| Semester | F S Su | F S Su | F S |
| Plan A   | W C W  | C W C  | C C |
| Plan B   | C W C  | W C W  | C C |

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 have completed 24 credit hours and 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 2.750 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 202. Service Learning in Engineering (1).** An intentional and thought-provoking application of classroom learning to active and engaging engineering work by participating in a group project that meets identified community needs. The course is project based, with a report and reflections. The project is identified by the student and could be mentoring or leading a team of students in an engineering service effort.

**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.

#### Upper-Division Courses

**ENGR 301. The Engineer as Leader (3).** Develops engineering students for leadership roles soon after graduation. Covers leadership theory, leadership in the context of engineering (both formal and informal) and has several invited speakers. Students complete leadership reflections as well as other assignments.

**ENGR 311. Engineering Physics I (4).** Calculus-based introduction to mechanics with an emphasis on applications of importance to engineering students including vectors, kinematics, dynamics, work, energy, heat and wave motion. Prerequisite: high school physics or PHYS 151. Corequisite: MATH 243.

**ENGR 360. Special Topics (4).** New or special topics presented on sufficient demand at the undergraduate level. Prerequisite: instructor’s consent.

### Aerospace Engineering (AE)

The aerospace engineering program is accredited by the Engineering Accreditation Commission of ABET, <http://www.abet.org>. The educational objectives of the 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, a small-aircraft prototype 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, 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:

|  |       |             |
|--|-------|-------------|
| <i>Course</i>  | ..... | <i>hrs.</i> |
| <i>Basic Skills:</i>                                       |       |             |
| ENGL 101/100 & 102 College English I & II                  | ..... | 6           |
| COMM 111 Public Speaking                                   | ..... | 3           |
| PHIL 385 Engineering Ethics                                | ..... | 3           |
| Fine arts/humanities & social/behavioral sciences courses* | ..... | 15          |
| <i>Mathematics/Natural Sciences:</i>                       |       |             |
| MATH 242, 243 & 344 Calculus I, II & III                   | ..... | 13          |
| MATH 555 Differential Equations I                          | ..... | 3           |
| ENGR 311 Engineering Physics I                             | ..... | 4           |
| PHYS 315 University Physics Lab I                          | ..... | 1           |
| PHYS 314 Physics for Scientists II                         | ..... | 4           |
| CHEM 211 General Chemistry I                               | ..... | 5           |
| Natural sciences elective**                                | ..... | 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:

|                                       |       |   |
|---------------------------------------|-------|---|
| AE 227 Engr. Digital Computation      | ..... | 3 |
| IME 222 Engineering Graphics          | ..... | 3 |
| ME 250 Materials Engineering          | ..... | 3 |
| AE 324 Fund. 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 & Control      | ..... | 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 |

\* Refer to graduation requirements at the beginning of this section for details.

\*\* 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. Considers both two- and three-dimensional bodies. Also studies centroids, centers of gravity and moments of inertia.

Prerequisite: PHYS 313, or ENGR 360A, or ENGR 311.  
Corequisite: MATH 243.

**AE 227. Engineering Digital Computation (3).** FORTRAN programming and use of Digital Computing Center facilities; introduction to linear algebra and matrix methods for engineers, selected numerical methods for approximating functions, solution of systems of equations, numerical integration, and numerical determination of the roots of polynomials. Corequisite: MATH 243.

**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. Intended for students who will be working full time on their co-op assignment and need not be enrolled in any other course. May be repeated. Offered *Cr/NCr* only. Prerequisites: 30 hours toward a Bachelor of Science degree in aerospace engineering and approval by appropriate faculty sponsor.

**AE 281P. Co-op Education (1).** Introduces the student to engineering practice by working in industry in an engineering-related job and provides a planned professional experience designed to complement and enhance the student's academic program. Individualized programs must be formulated in consultation with, and approved by, 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 223 (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 373. Dynamics (3).** A study of the kinematics and kinetics of particles and rigid bodies. Includes force-mass-acceleration, work-energy and impulse-momentum methods. Prerequisites: AE 223 (no grade lower than one that generates 2,000 or more credit points per credit hour will be accepted for this course), and MATH 344.

**AE 415. Introduction to Space Dynamics (3).** Fundamentals of orbital mechanics and rigid body dynamics, two-body problems, orbital maneuvers and orbital determination, rigid body kinematics, and kinetics. Prerequisites: AE 227 and AE 373 (no grade lower than one that generates 2,000 or more credit points per credit hour will be accepted for AE 373). 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 502. Aerospace Propulsion I (3).** Survey of aerospace propulsion methods. Production of thrust and consumption of fuel. Rocket performance analysis; liquid chemical and solid propellant rocket engines. Jet engine cycle analysis; turbojet, ramjet, turbofan, and turboprop engines. Analysis of piston engines and propellers. Prerequisites: AE 227, 373, ME 398. Corequisite: AE 424.

**AE 508. Systems Dynamics (3).** Lumped parameter modeling; classical, numerical, transform and state model methods of solution; introduction to systems with feedback; analogies of various physical systems. Prerequisites: AE 373 and MATH 555.

**AE 512. Experimental Methods in Aerodynamics (2).** 4L. A study of experimental methods and test planning, error analysis and propagation, model design, instrumentation and flow visualization. Uses subsonic and supersonic wind tunnels. Prerequisites: AE 333 and 424.

**AE 514. Flight Dynamics and Control (3).** Static stability and control of conventional aircraft and implications in aircraft design, six degrees of freedom, time dependent equations of motion and their linearized solutions. Consideration of stability versus maneuverability and the dynamic modes of motion of the aircraft. Prerequisite: AE 415. Corequisite: AE 424.

**AE 525. Flight Structures I (3).** 2R; 2L. 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 527. Numerical Methods in Engineering (3).** Error analysis. Includes polynomial approximations and power series, iterative solutions of equations, matrices and systems of linear equations, numerical differentiation and integration, approximate solution of differential equations by finite differences. Prerequisite: AE 227. 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, 525.

**AE 607. Flight Control Systems (3).** Classical design methods for stability and control augmentation and guidance systems specifically for aerospace vehicles, including block diagrams, root locus and frequency response. Sensors used in aerospace systems. Flying qualities and performance specifications for closed loop

systems. Includes a review of the aircraft and spacecraft dynamic model derivation. Prerequisite: AE 514.

**AE 625. Flight Structures II (3).** 2R; 2L. 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. Prerequisites: 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 nonlinearities 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 714. Advanced Flight Dynamics I (3).** Review of the equations of motion for aircraft. Nonlinear effects and aircraft response. Stability and control of elastic aircraft. Response to turbulence. Prerequisite: AE 514 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. Prerequisites: 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 733. Advanced Mechanics of Materials (3).** An extension of AE 333. Includes transformation of stress and strain in three dimensions, noncircular torsional members, curved beams, beams with unsymmetric cross sections, energy methods and the finite element method of analysis, stress concentration, theories of failure and fracture mechanics. Prerequisite: AE 333.

**AE 737. Mechanics of Damage Tolerance (3).** An introduction to the mechanics of damage tolerance emphasizing stress analysis oriented fracture mechanics. Includes stress intensity, fracture toughness, residual strength, fatigue crack growth rate, fatigue crack propagation and damage tolerance concepts. Prerequisite: AE 525 or 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 allowables, structural analysis (beams and axially loaded members), design guidelines, introduction to manufacturing methods, repair and nondestructive testing. Prerequisites: AE 333, senior standing.

**AE 759. Neural Networks for System Modeling and Control (3).** Introduces specific neural network architectures used for dynamic system modeling and intelligent control. Includes theory of feed-forward, recurrent, and Hopfield networks; applications in robotics, aircraft and vehicle guidance, chemical processes and optimal control. Prerequisite: AE 607 or ME 659 or EE 684 or instructor's consent.

**AE 760. Selected Topics (1-3).** Prerequisite: instructor's consent.

**AE 773. Intermediate Dynamics (3).** An extension of AE 373. Studies the kinematics and kinetics of particles and rigid bodies for two- and three-dimensional motion. Includes an introduction to vibratory motion, dynamic stability of linear systems and Lagrange's equations. Prerequisite: AE 373.

**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, 373.

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

## BioEngineering (BIOE)

The Bioengineering program is intended for students who want to pursue careers where engineering interfaces with the physical and biological sciences. Bioengineering integrates physical, chemical, mathematical sciences and engineering principles for the study of biology, medicine, behavior or health. Bioengineering advances fundamental concepts, and develops materials, processes, implants, devices and informatics approaches for the prevention, diagnosis and treatment of disease, for patient rehabilitation and for improving health. Bioengineers develop devices and procedures that solve medical and health-related problems by combining their knowledge of biology and medicine with engineering principles and practices. Many do research, along with life scientists, chemists and medical scientists, to develop and evaluate systems and products such as artificial organs, prostheses, instrumentation, medical information systems and health management and care delivery systems. Some specialties include biomaterials, biomechanics, medical imaging, rehabilitation engineering and orthopedic engineering.

**Bioengineering Program Mission:** The mission of the bioengineering program is to provide students a comprehensive education, including integration of the life sciences and engineering principles, to prepare the students to address health needs at the local, national and global levels.

**Program Educational Objectives:** The educational objectives of the bioengineering program are driven by WSU's mission as an urban serving institution, as well as the bioengineering program mission to prepare students to address health needs. Specifically, graduates of the bioengineering program will be able to (1) address problems at the interface of engineering, biology and medicine; (2) pursue professional development, including further study in graduate or professional schools; and (3) assume leadership roles in addressing societal needs at the local, national and global levels.

**Sequence of Courses:** The bioengineering program requires the completion of 133 credit hours for graduation. Specific degree requirements are given below. Students select 12 hours of engineering technical electives, and 3 hours of open technical electives selected from a wide range of courses at WSU. Contact the bioengineering program coordinator for a list of applicable engineering and open technical electives.

**Premed Students:** Curriculum differences for premed students in the bioengineering program consist of the following: (1) BIOL 211, General Biology II, is required for premed students; (2) PHYS 313 and 314 must be taken instead of ENGR 311 and 360B; additionally, the lab components, PHYS 315 and 316 are also required to satisfy premed requirements; (3) CHEM 531 and 532, Organic Chemistry I and II, are required for bioengineering students in the premed curriculum, and will satisfy the bioengineering curriculum organic chemistry component (CHEM 533). Bioengineering students who are in the premedicine curriculum are encouraged to also meet frequently with the WSU premed advisers to learn about other premed requirements. WSU premed advisers are located in the College of Liberal Arts and Sciences Advising Center, 115 Grace Wilkie Hall (978-3700).

Course .....hrs.  
Basic Skills:

|  |    |
|--|----|
| ENGL 101/100 and 102 College English I & II                | 6  |
| COMM 111 Public Speaking                                   | 3  |
| PHIL 385 Engineering Ethics                                | 3  |
| Fine arts/humanities & social/behavioral sciences courses* | 15 |

Mathematics/Natural Sciences:

|  |    |
|--|----|
| MATH 242 & 243 Calculus I & II                   | 10 |
| IME 254 Engineering Probability and Statistics I | 3  |
| MATH 555 Differential Equations I                | 3  |
| ENGR 311 & 360B Engineering Physics I & II       | 8  |
| BIOL 210 General Biology I                       | 4  |
| BIOL 223 Human Anatomy & Physiology              | 5  |
| BIOL 420 Molecular Cell Biology                  | 4  |
| CHEM 211 & 212 General Chemistry I & II          | 10 |
| CHEM 533 Elementary Organic Chemistry            | 3  |
| CHEM 661 Introductory Biochemistry               | 3  |

Engineering Core Courses:

|                             |   |
|-----------------------------|---|
| AE 223 Statics              | 3 |
| EE 282 Circuits I           | 4 |
| ME 398 Thermodynamics I     | 3 |
| IME 255 Engineering Economy | 3 |

Major Courses:

|                                       |   |
|---------------------------------------|---|
| BIOE 452 Biomechanics                 | 3 |
| BIOE 462 Intro. to Biofluids          | 3 |
| BIOE 477 Intro. to Biomaterials       | 3 |
| BIOE 480 Bioinstrumentation           | 3 |
| BIOE 482 Design of Biodevices         | 3 |
| BIOE 585 Bioengineering Practicum     | 3 |
| BIOE Bioengineering Capstone Design   | 3 |
| CS 497B Intro. to Prog. for Engineers | 3 |
| ME 251 Materials Engineering Lab      | 1 |

Technical Electives\*\*

|                                 |    |
|---------------------------------|----|
| Engineering technical electives | 12 |
| Open technical electives        | 3  |

\* Refer to graduation requirements at the beginning of this section for details

\*\*Contact the program coordinator for list of applicable technical elective courses.

**BioEngineering (BIOE)****Upper-Division Courses**

**BIOE 452. Biomechanics (3).** A foundation of mechanics in addressing bioengineering problems. Introduction to the basic concepts and methods of mechanics as applied to biological tissues. Introduces statics, dynamics and mechanics applied to the human body including the following: (1) vectors, moments, equilibrium, (2) kinetics and kinematics including displacement, rotation, acceleration and deformation, (3) stress and strain, (4) equations of motion, (5) impulse and momentum, and (6) mechanical properties of biological tissues. Prerequisites: MATH 243, AE 223.

**BIOE 462. Introduction to Biofluids (3).** Introduction to the conservation laws which form the foundation of fluid mechanics and their application to bioengineering related problems. Topics include dimensional analysis, definition of system, conservation of mass and energy, with and without chemical reactions, and conservation of momentum. Prerequisite: AE 223. Corequisites: BIOL 223, ME 398.

**BIOE 477. Introduction to Biomaterials (3).** Major classes of materials used in medical devices including polymers, metals, ceramics, composites and natural materials are discussed. Biocompatibility, host reactions to biomaterials, immune response, wound healing, biomaterial implantation and acute inflammation, thrombosis, infection, tumorigenesis and calcification of biomaterials, testing and degradation of biomaterials in vivo are covered. Specific biomaterials applications such as cardiovascular devices, drug delivery and tissue engineering are covered. Additionally, biomedical device design and regulatory issues are also discussed. Prerequisites: CHEM 211, PHYS 213 or 313, or ENGR 311.

**BIOE 480. Bioinstrumentation (3).** Introduction to engineering aspects of the detection, acquisition, processing and display of signals from living systems; biomedical sensors for measurements of biopotentials, ions and gases in aqueous solution, force, displacement, blood pressure, blood flow, heart sounds, respiration, and temperature; therapeutic and prosthetic devices; medical imaging instrumentation. Prerequisite: EE 282.

**BIOE 481A. Co-op Education (1).** Introduction to engineering practice by working in industry in an engineering-related job. 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 BioEngineering and approval by the appropriate faculty sponsor.

**BIOE 481P. Co-op Education (1).** Introduction to engineering practice by working in industry in an engineering-related job. 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. Offered Cr/NCr only. Prerequisites: 30 hours toward Bachelor

of Science in BioEngineering and approval by the appropriate faculty sponsor.

**BIOE 482. Design of Biodevices (3).** Discusses the overview of device definitions, selection and use of materials in invitro medical devices and implantable medical devices, product development and documentation, regulation and testing of medical devices, reliability and liability, licensing and patents, manufacturing and quality control, biocompatibility, FDA and ISO 10993 biological evaluations. Provides an overview of the multiple issues in designing a marketable medical device, including the design process from clinical problem definition through prototype and clinical testing to market readiness. Design case studies are discussed. Prerequisite: BIOE 477 or ME 651.

**BIOE 491. Tissue Engineering (3).** Introduction to the strategies and fundamental bioengineering design criteria behind the development of tissue substitutes. Principles of engineering and the life sciences toward the development of biological substitutes that restore, maintain or improve tissue function are covered. Topics include cell growth and differentiation, materials for scaffolding, bioreactor design, clinical applications, regulatory aspects and ethics. Prerequisite: BIOE 477 or ME 651.

**BIOE 497. Special Topics (3).** New or special topics presented on sufficient demand at the undergraduate level. Prerequisite: instructor's consent.

**BIOE 585. Bioengineering Practicum (3).** Focuses on the process of strategic clinical problem solving and innovation through evaluation of real world diagnostic processes, current therapeutic approaches and clinical outcomes. Students work in teams to identify and critically evaluate unmet medical or clinical needs through the use of a biodesign and innovation process, including clinical needs finding through on-site observations, stakeholder assessments, needs statement development and concept generation. For undergraduate students only. Prerequisites: senior standing, program coordinator consent.

**BIOE 590. Independent Study and Research (1-3).** Independent study or research directed by a faculty member affiliated with the bioengineering program. May be repeated for credit. A maximum of 3 credit hours may be applied toward graduation. Prerequisite: consent of supervising faculty member.

**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 electrical and computer engineering programs are accredited by the Engineering Accreditation Commission of ABET, <http://www.abet.org>.

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 65 credit hours in common. The common hours are made up of communication skills (9 hours), math and science courses (29 hours), general education courses (12 hours), engineering core courses (3 hours), and major courses (12 hours). Additional courses include 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**

Course .....hrs.

*Basic Skills:*

|  |    |
|--|----|
| ENGL 101/100 and 102 College English I & II.....                 | 6  |
| COMM 111 Public Speaking.....                                    | 3  |
| PHIL 385 Engineering Ethics.....                                 | 3  |
| Other fine arts/humanities & social/behavioral sciences courses* | 15 |

*Mathematics/Natural Sciences:*

|   |    |
|---|----|
| MATH 242, 243 & 344 Calculus I, II & III..... | 13 |
| MATH 511 Linear Algebra.....                  | 3  |
| MATH 555 Differential Equations I.....        | 3  |
| ENGR 311 Engineering Physics I.....           | 4  |
| PHYS 314 Physics for Scientists II.....       | 4  |
| CHEM 211 General Chemistry I.....             | 5  |
| IME 254 Engr. Probability and 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 194 Introduction to Digital Design.....                                 | 4 |
| CS 211 Problem Solving & Programming in C.....                             | 4 |
| EE 284 Circuits II.....  | 3 |
| EE 383 Signals & Systems.....  | 3 |
| EE 463 Applied Engr. Electromagnetics.....                                 | 3 |
| EE 488 Elec. Machines & Transformers.....                                  | 4 |
| EE 492 Electronic Circuits I.....  | 3 |
| EE 493 or 688 Elect. Circuits II or Pwr Elect.....                         | 4 |
| EE 586 Intro. to Communication Sys.....                                    | 4 |
| EE 585 & 595 Electrical Design Proj. I & II.....                           | 4 |
| EE 684 Intro. Control System Concepts or ME 659 Mech. Control Systems..... | 3 |

Technical electives\*\*.....14

\* Refer to graduation requirements at the beginning of this section for details.

\*\* Must be chosen with adviser's approval from a departmentally approved list. At least 8 of the 14 hours must be from the EECS department. Up to 2 credit hours of co-op can be used as nondepartmental technical electives.

**Computer Engineering**

Course .....hrs.

*Basic Skills:*

|  |    |
|--|----|
| ENGL 101/100 and 102 College English I & II.....                 | 6  |
| COMM 111 Public Speaking.....                                    | 3  |
| PHIL 354 Ethics and Computers.....                               | 3  |
| Other fine arts/humanities & social/behavioral sciences courses* | 15 |

*Mathematics/Natural Sciences:*

|  |    |
|--|----|
| MATH 242 & 243 Calculus I & II.....        | 10 |
| MATH 321/CS 321 Discrete Structures I..... | 3  |
| MATH 511 Linear Algebra.....               | 3  |
| MATH 555 Differential Equations I.....     | 3  |
| ENGR 311 Engineering Physics I.....        | 4  |
| PHYS 314 Physics for Scientists II.....    | 4  |
| CHEM 211 General Chemistry I.....          | 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 194 Introduction to Digital Design.....         | 4 |
| CS 211 Problem Solving & Programming in C.....     | 4 |
| CS 238 Assembly Language Prog.....                 | 3 |
| CS 300 Data Structures & Algorithms I...3          |   |
| CS 394 Intro. to Computer Architecture...3         |   |
| CS 411 Object-Oriented Programming...3             |   |
| CS 464 Computer Networks.....                      | 3 |
| CS 540 Operating Systems.....                      | 3 |
| CS 594 Microprocessor Based System Design.....     | 4 |
| EE 284 Circuits II.....                            | 3 |
| EE 492 Electronic Circuits I.....                  | 3 |
| EE 585 & 595 Electrical Design Project I & II..... | 4 |

Technical electives\*\*.....13

\* Refer to graduation requirements at the beginning of this section for details.

\*\* Must be chosen with adviser's approval from a departmentally approved list. At least 6 of the 13 hours must be from the EECS department. Up to 2 credit hours of co-op can be used as nondepartmental technical electives.

**Computer Science**

Course .....hrs.

*Basic Skills:*

|   |    |
|---|----|
| ENGL 101/100 and 102 College English I & II..                     | 6  |
| COMM 111 Public Speaking.....                                     | 3  |
| PHIL 125 Introductory Logic.....                                  | 3  |
| PHIL 354 Ethics and 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 I & II..... | 6  |
| ENGR 311 Engineering Physics I.....            | 4  |
| PHYS 314 Physics for Scientists II.....        | 4  |
| CHEM 211 General Chemistry I.....              | 5  |
| IME 254 Engr. Probability & Stats. I.....      | 3  |

*Engineering Core Courses:*

|                                  |   |
|----------------------------------|---|
| IME 255 Engineering Economy..... | 3 |
| PHIL 325 Formal Logic.....       | 3 |

*Major Courses:*

|  |   |
|--|---|
| CS 194 Intro to Digital Design.....                | 4 |
| CS 211 Problem Solving and Programming in C.....   | 4 |
| CS 238 Assembly Language Prog.....                 | 3 |
| CS 300 Data Structures & Algorithms I...3          |   |
| CS 394 Intro to Computer Architecture...3          |   |
| CS 410 Programming Paradigms.....                  | 3 |
| CS 411 Object-Oriented Programming...3             |   |
| CS 460 Algorithm Design Method.....                | 3 |
| CS 464 Computer Networks.....                      | 3 |
| CS 510 Programming Language Concepts.....          | 3 |
| CS 540 Operating Systems.....                      | 3 |
| CS 560 Data Structures & Algorithms II...3         |   |
| EE 585 & 595 Electrical Design Project I & II..... | 4 |

|  |   |
|--|---|
| CS 665 Intro. to Database Systems.....     | 3 |
| CS 680 Intro. to Software Engineering..... | 3 |

Technical Electives\*\*.....12

\* 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 nondepartmental technical electives.

**Minor.** The minor provides a valuable addition to other majors and can help a student demonstrate ability in the computer science discipline. Students complete a required minimum of 16 hours of computer science courses. These 16 hours must include CS 210, 211, 300 and two CS courses numbered above 300. CS 350 workshops are not counted toward meeting the minor requirements.

**Computer Science (CS)**

**Lower-Division Courses**

**CS 194. Introduction to Digital Design (4). 3R; 3L.** An introduction to digital 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 210. Introduction to Computer Science (3).** *General education introductory course.* Broad introduction to the discipline of computer science. Covers algorithms, computer hardware, operating systems, introduction to high-level language programming, databases, artificial intelligence and other applications, and social issues. Prerequisite: MATH 111.

**CS 211. Problem Solving and Programming in C (4). 3R; 2L.** First course in programming in a high-level language. Emphasizes analyzing problems, designing solutions and expressing them in the form of a well-structured program in the high-level language C. Prerequisite: MATH 112 or 123.

**CS 238. Assembly Language Programming (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 211.

**Upper-Division Courses**

>**CS 300. Data Structures and Algorithms I (3). 3R; 2L.** *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. Prerequisite: CS 211.

**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 322. Discrete Structures II (3).** A continuation of CS 321. Includes relations, graphs, trees, Boolean algebra and automata. Prerequisite: CS 321.

**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 394. Introduction to Computer Architecture (3).** Introduces multilevel approach to computer architecture, with an emphasis on micro architecture level, instruction set architecture level, and operating system level. Also introduces parallel computer architectures. Prerequisites: CS 194 and 238 or equivalent.

**CS 410. Programming Paradigms (3).** Exposure to computer programming in various styles of languages. Emphasizes programming rather than theory. Prerequisite: CS 300.

**CS 411. Object-Oriented Programming (3).** Concepts of object-oriented programming. Includes data abstraction, classes and objects, methods, inheritance, polymorphic variables, dynamically-bound method calls and data encapsulation. Gives programming experience in an object-oriented programming language. Prerequisite: CS 300.

**CS 444. Introduction to Unix (3).** 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.

**CS 460. Algorithm Design Methodologies (3).** Advanced course on problem modeling and techniques for designing algorithms for real world problems. Projects emphasize program design and development. 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).** 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.

**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/Ncr* only. Prerequisite: departmental consent.

**CS 497. Special Topics (1-3). 1-3R; 1L.** Special topics of current interest in computer science. Prerequisite: departmental consent.

**CS 498. Individual Projects (2-3).** Repeatable for a total of 6 hours of credit. Graded *Cr/Ncr* only. Prerequisite: departmental consent.

#### Courses for Graduate/Undergraduate Credit

**CS 510. Programming Language Concepts (3).** Theoretical concepts in the design and use of programming languages. Formal syntax, including Backus Normal Form (BNF), Extended Backus-Naur Form (EBNF), and syntax diagrams. Semantics, including declaration, allocation and evaluation, symbol table and runtime environment; data types and type checking, procedure activation and parameter passing, modules and abstract data types. Prerequisites: CS 300, MATH 322.

**CS 540. Operating Systems (3).** Fundamental principles of modern operating systems. CPU management including processes, threads, scheduling, synchroni-

zation, resource allocation and deadlocks. Memory management including paging and virtual memory. Storage management and file systems. Prerequisites: CS 238, 300.

**CS 560. Data Structures and Algorithms II (3).** Design and analysis of algorithms and proof of correctness. Analysis of space and time complexities of various algorithms including several sorting algorithms. Data structures include heaps, hashing and binary search trees. Prerequisites: CS 300, 322; STAT 460 or IME 254.

**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 238, 394.

**CS 644. Advanced Unix Programming (3).** Improves skills in C programming under the Unix environment. Covers file I/O, both buffered and unbuffered, working with the Unix file system, concurrent programming with multiple processes and process control. Also includes the use of signals and 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.

**CS 655. Information Delivery on the Internet (3).** Explores the capabilities of providing information on the World Wide Web. Information is typically provided through some sort of website that incorporates static text and the dynamic capabilities of the Web. Learn how to create an interactive website through the use of CGI and Java programming and how to interconnect a website 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.

**CS 665. Introduction to Database Systems (3).** Fundamental aspects of relational database systems, conceptual database design and entity-relationship modeling; the relational data model and its foundations, relational languages and SQL, functional dependencies and logical database design; views, constraints and triggers. Course includes a group project involving the design and implementation of a relational database and embedded SQL programming. Prerequisites: CS 300 and MATH 322.

**CS 680. Introduction to Software Engineering (3).** 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, 410.

**CS 697. Selected Topics (1-3). 1-3R; 1L.** Selected topics of current interest. Repeatable for credit with departmental consent. Prerequisite: departmental consent.

**CS 715. Compiler Construction (3).** First compiler course for students with a good background in programming languages and sufficient programming experience. Covers compiler design, lexical analysis, parsing techniques, symbol tables, scope analysis, type checking and conversion; run-time organization, code generation and optimization. Project-oriented course involves implementation of a full compiler for a simplified but nontrivial procedural language. Prerequisites: CS 238, 510.

**CS 720. Theoretical Foundations of Computer Science (3).** Provides an advanced level introduction to the theoretical bases of computer science. Computer science theory includes the various models of finite state machines, both deterministic and nondeterministic, and concepts of decidability, computability and formal language theory. Prerequisite: CS 322.

**CS 721. Advanced Algorithms and Analysis (3).** Topics include height-balanced trees, graph algorithms, greedy algorithms, dynamic programming, hard problems and approximation algorithms. Prerequisite: CS 560.

**CS 736. Data Communication Networks (3).** Presents a quantitative performance evaluation of telecommunication networks and systems. Includes fundamental digital communications system review; packet communications, queuing theory, OSI, s.25 and SNA layered architectures, stop-and-wait protocol, go-back-N protocol, and high-level data link layer; network layer flow and congestion control, routing, polling and random access, local area networks (LAN); integrated services digital networks (ISDN), and broadband networks. Prerequisites: CS 300, IME 254.

**CS 737. Wireless Networking (3).** Covers topics ranging from physical layer to application layer in the wireless and mobile networking fields. Explores physical layer issues of wireless communications, wireless cellular telephony, ad-hoc networks, mobile IP and multicast, wireless LAN (IEEE 802.11), security, Bluetooth and WAP, etc. Imparts general knowledge about wireless communication technologies and ongoing research activities. Prerequisite: CS 736.

**CS 738. Embedded Systems Programming (3).** Studies the requirements and design of embedded software systems. Application of the C programming language in the implementation of embedded systems emphasizing real-time operating systems, interfacing to assembly and high-level languages, control of external devices, task control and interrupt processing. Prerequisite: CS 594.

**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 VLSM. Introduces different routing protocols. Includes hands-on experience in the CS department's routing and switching lab. Prerequisite: CS 464 or 736.

**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.

**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 are also discussed. Prerequisite: CS 464 or 736 or 764.

**CS 771. Artificial Intelligence (3).** Introduction to some of the fundamental concepts and techniques underlying artificial intelligence. Topics covered include state spaces, heuristic search, game playing, knowledge representation, and resolution in propositional and first-order predicate logic. Prerequisites: CS 300, MATH 322.

**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 3.000 or above.

**CI 797. Special Topics (1–4).** New or special courses presented on sufficient demand. Repeatable for credit. Prerequisite: departmental consent.

**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 WSU Graduate Catalog for courses numbered 800 and above.

## Electrical Engineering (EE)

### Lower-Division Courses

**EE 282. Circuits I (4).** 3R; 2L. Electric circuit principles and methods of analysis. Includes DC circuits, network theorems, capacitance and inductance, AC circuit analysis, phasor plane techniques, complex power and balanced three-phase circuits. Corequisite: MATH 243.

**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, 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: 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. Prerequisite: departmental consent.

**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. Prerequisite: departmental consent.

**EE 488. Electric Machines and Transformers (4).** 3R; 3L. Theory and analysis of transformers, DC machines and AC machines. Includes single-phase and three-phase transformers, DC machines synchronous machines, and induction motors. Prerequisite: EE 282.

**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.

**EE 493. Electronic Circuits II (4).** 3R; 3L. An investigation of the theory and application of discrete and integrated circuits. Includes op-amp construction, frequency response, feedback and stability, power amplifiers and nonlinear integrated circuits. Prerequisite: EE 492.

### 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. Does not count toward a graduate electrical engineering degree. Prerequisite: departmental consent.

**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 PSK and FSK digital communication systems covered as time permits. Prerequisites: EE 383, 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. Prerequisite: EE 488.

**EE 595. Electrical Design Project II (2).** 3L. A continuation of EE 585. Will not count toward a graduate electrical engineering degree. Prerequisite: EE 585.

**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 610. Introduction to Quantum Computing (3).** Introduction to the theory and practice of quantum computing. Topics covered include the basics of quantum mechanics, Dirac notation, quantum gates and circuits, entanglement, measurement, teleportation and algorithms. Prerequisite: MATH 511.

**EE 684. Introductory Control System Concepts (3).** Cross-listed as ME 659. An introduction to system modeling and simulation, dynamic response, feedback theory, stability criteria, and compensation design. Prerequisites: (1) EE 282 and MATH 555, or (2) EE 383.

**EE 688. Power Electronics (4).** 3R; 2L. 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 AC-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 BJT and MOS analog and digital integrated circuits. Includes BJT, BiMOS and MOS fabrication; application specific semi-custom VLSI arrays, device performance and characteristics; and integrated circuit design and applications. Prerequisites: CS 194 and EE 493.

**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, PSK, DPSK, QPSK, FSK, MSK, and other techniques appropriate for communicating digital information in both base-band and band-pass systems; intersymbol interference, effects of noise on system performance, optimum systems and general M-ary 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 controls, computer systems information theory and signal processing. Covers basic concepts and useful analytical tools for engineering problems involving discrete and continuous-time random processes. Discusses applications to system analysis and identification, analog and digital signal processing, data compression parameter estimation, and related disciplines. Prerequisites: EE 383 and 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 782. Digital Signal Processing (3).** Presents the fundamental concepts and techniques of digital signal processing. Time domain operations and techniques include difference equations and convolution summation. Covers Z-transform methods, frequency-domain analysis of discrete-time signals and systems, discrete Fourier transform, and fast Fourier transform. Emphasizes the frequency response of discrete-time systems and the relationship to analog systems. Prerequisite: EE 383.

**EE 784. Digital Control Systems (3).** Studies the effects of sampling and quantization, discrete systems analysis, sampled-data systems and Z-domain and state space design. Prerequisite: EE 684 or ME 659.

**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 792. Linear Systems (3).** Review of mathematics relevant to state-space concepts. Formulation of state-variable models for continuous-time and discrete-time linear systems. Concepts of controllability, observability, stabilizability and detectability. Pole placement and observer design. State transformation techniques and their use in analysis and design of linear control systems. Prerequisite: EE 684 or ME 659.

**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 WSU Graduate Catalog for courses numbered 800 and above.

## Engineering Technology (ENGT)

The Bachelor of Science in Engineering Technology (BSET) program at Wichita State University is a hands-on program based on engineering technology fundamentals, engineering principles, instrumentation, mathematics, science and practical design principles needed to equip students for employment or further education. The focus is on current engineering technology issues and applications used in product design, testing, installation and maintenance to prepare students for careers in manufacturing, construction, health care, education and technical services or sales. The BSET curriculum offers four specialized program tracks for students transferring from technology programs in two-year colleges:

- aircraft maintenance technology;
- engineering technology management;
- mechatronics technology; and
- renewable energy technology.

### College of Engineering Requirements: Engineering Technology

1. PHIL 385, Engineering Ethics (3 hrs.), is a required course for engineering technology students. The course is in humanities under the general education requirements.

2. ENGL 210, Composition: Business, Professional and Technical Writing (3).

3. Mathematics and natural sciences: 6 hours of mathematics above pre-calculus and trigonometry and 3 hours of natural sciences must be completed, as prescribed by the department.

4. **Engineering technology core requirements (28 hrs.):**

|          |  |   |
|----------|--|---|
| IME 222  | Engineering Graphics .....                   | 3 |
| IME 254  | Engr. Probability & Statistics I .....       | 3 |
| IME 255  | Engineering Economy .....                    | 3 |
| IME 258  | Mfg. Methods & Materials I .....             | 3 |
| CS 211   | Problem Solving and Programming in C .....   | 4 |
| ENGT 301 | Intro. to Eng. Technology .....              | 3 |
| ENGT 302 | Applied Mechanics: Statics and Dynamics..... | 3 |
| ENGT 401 | Senior Project I.....                        | 3 |
| ENGT     | Senior Project II.....                       | 3 |

All Engineering technology students must complete these courses, regardless of engineering technology track.

5. Technical electives: At this time, electives will be completed during the student's freshman and sophomore years of college. Electives are not permitted during the student's junior and senior years while enrolled in the BSET program. See departmental adviser with questions.

6. Completion of the Engineer of 2020 program. Details outlined under College of Engineering Requirements, #6, page 78.

### Program Educational Objectives

The Bachelor of Science in Engineering Technology (BSET) degree program is designed to:

- provide students transferring from community and technical colleges an option to continue their education in engineering technology;
- offer students a hands-on and truly interdisciplinary engineering technology education;
- prepare students for employment opportunities related to engineering technology;
- provide employers with high-skilled engineering technologists; and
- prepare students for further studies in engineering, business, education or management.

### Sequence of Courses

The undergraduate program requires a minimum completion of 124 credit hours for graduation, depending on the track chosen, minus advanced placement credit. Eighteen (18) credits of technical elective courses enable a student to graduate with a broad background in engineering technology with a focus in one of four specialty areas: aircraft maintenance technology, engineering technology management, mechatronics technology or renewable energy technology.

The student may transfer up to 64 credits from a community or technical college which include the following:

|   |      |
|---|------|
| Course .....  | hrs. |
| <b>Basic Skills:</b>  |      |
| ENGL 101/100 & 102 College English I & II.....  | 6    |
| COMM 111 Public Speaking .....  | 3    |
| Fine arts .....   | 3    |
| Humanities .....  | 6    |
| Social/Behavioral sciences .....  | 6    |
| Natural sciences.....   | 3    |
| Fine arts, humanities, social/behavioral sciences, or mathematics and natural sciences..... | 6    |
| Math above pre-calculus and trigonometry.....   | 6    |
| Technical electives .....   | 18   |

For further program information, please visit our website: [wichita.edu/engtech](http://wichita.edu/engtech), or contact:

Mel Whiteside  
 Director of Engineering Technology  
 College of Engineering  
 1845 Fairmount Street  
 Wichita, KS 67260-0044

Phone: (316) 978-6552  
 Email: [mel.whiteside@wichita.edu](mailto:mel.whiteside@wichita.edu)

*Note: ENGT courses are currently being reviewed for approval. Course numbers will be assigned after approval.*

### Track: Aircraft Maintenance Technology

|   |   |   |
|---|---|---|
| Required Courses.....   | hrs.  |   |
| Core Courses: See engineering technology core requirements above..... | 28  |   |
| <i>Track requirements:</i>  |   |   |
| ENGT  | Maintenance Regulations & Practices.....                    | 2 |
| ENGT  | Aircraft Engines .....                                      | 3 |
| ENGT 361  | Industrial Controls & Instrumentation.....                  | 4 |
| ENGT 431  | Aerodynamics & Performance .....                            | 2 |
| ENGT 304  | Introduction to Strength & Mechanics of Materials.....      | 3 |
| ENGT  | Avionics Systems .....                                      | 3 |
| ENGT  | Aircraft Structures & Systems.....                          | 3 |
| ENGT  | Aircraft Damage Analysis & Repair.....                      | 3 |
| ENGT  | Nondestructive Testing .....                                | 3 |
| ENGT 330  | Material Applications in Engineering .....                  | 4 |
| ENGT 332  | Aviation Safety & Security.....                             | 2 |
| ENGT  | Aircraft Fatigue & Fracture Mechanics .....                 | 3 |
| ENGT  | Aircraft Reliability, Maintainability & Supportability..... | 3 |
| ENGT  | Aircraft Propulsion Systems .....                           | 2 |
| ENGT 320  | Circuits Technology.....                                    | 4 |
| PHIL 385  | Engineering Ethics.....                                     | 3 |
| ENGL 210  | Composition: Business, Prof. & Technical Writing.....       | 3 |
| Total .....   | (77 hrs.)   |   |

*Note: ENGT courses are currently being reviewed for approval. Course numbers will be assigned after approval.*

### Track: Engineering Technology Management

|   |  |   |
|---|--|---|
| Required Courses.....   | hrs.   |   |
| Core Courses: See engineering technology core requirements above..... | 28   |   |
| <i>Track requirements:</i>  |  |   |
| BLAW 431  | Legal Environment of Business...3                        |   |
| ENGL 210  | Composition: Business, Prof. and Technical Writing.....3 |   |
| ENGT 440  | Engineering Technology Management.....3                  |   |
| ENGT  | Analysis of Decision Processes in Technology .....       | 3 |
| ENGR 301  | The Engineer as Leader .....                             | 3 |
| FIN 340   | Financial Management I.....                              | 3 |
| HRM 466   | Fundamentals of HR Mgmt. ....                            | 3 |
| IB 333  | International Business.....                              | 3 |
| MGMT 360  | Principals of Management.....                            | 3 |
| MGMT 460  | Designing Effective Org. ....                            | 3 |
| MGMT 463  | Building Effective Work Teams...3                        |   |
| MKT 300   | Marketing .....  | 3 |
| PHIL 385  | Engineering Ethics.....                                  | 3 |
| Total .....   | (67 hrs.)  |   |



Note: ENGT courses are currently being reviewed for approval. Course numbers will be assigned after approval.

**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 2.250 are required. Students completing the ETMgt degree receive a minor in business administration.

**Track: Mechatronics Technology**

Required Courses.....hrs.  
 Core Courses: See engineering technology core requirements above.....28  
 Track requirements:

|          |  |           |
|----------|--|-----------|
| ENGT 304 | Introduction to Strength and Mechanics of Materials..... | 3         |
| CS 194   | Introduction to Digital Design.....                      | 4         |
| CS 238   | Assembly Lang. Programming ...                           | 3         |
| CS 394   | Introduction to Computer Architecture.....               | 3         |
| ENGT     | Machine Elements .....                                   | 3         |
| ENGT     | Robotics Technology .....                                | 3         |
| ENGT 303 | Introduction to Fluids.....                              | 3         |
| ENGT 361 | Industrial Controls and Instrumentation.....             | 4         |
| ENGT     | Microcomputer-Based Mech. System .....                   | 3         |
| ENGT 320 | Circuits Technology.....                                 | 4         |
| ENGT     | Electrical Power and Machinery .                         | 4         |
| PHIL 385 | Engineering Ethics.....                                  | 3         |
| ENGL 210 | Composition: Business, Prof. and Technical Writing.....  | 3         |
| Total    | .....  | (70 hrs.) |

Note: ENGT courses are currently being reviewed for approval. Course numbers will be assigned after approval.

**Computer Science Minor.** The CS minor provides a valuable addition to the mechatronics technology major. Students complete 16 hours of computer science courses (which may be applied as MT technical electives). These 16 hours must include CS 210, 211, 300 and two CS courses numbered above 300. CS 350 workshops are not counted toward the minor requirements.

**Track: Renewable Energy Technology**

Required Courses.....hrs.  
 Core Courses: See engineering technology core requirements above.....28  
 Track requirements:

|          |   |   |
|----------|---|---|
| ME 398   | Thermodynamics I .....  | 3 |
| ENGT 303 | Introduction to Fluids.....                                     | 3 |
| ENGT 491 | Applied Fluid Mechanics.....                                    | 3 |
| ME 469   | Energy Conversion.....  | 3 |
| ENGT 360 | Renewable Energy Technology ...                                 | 3 |
| ENGT     | Energy, the Environment and Sustainability .....                | 3 |
| ENGT 490 | Sustainable Power Generation.....                               | 3 |
| ENGT     | Sustainable Heating, Ventilating & Air Conditioning (HVAC)..... | 3 |
| ENGT     | Renewable Energy Mgmt. ....                                     | 3 |

|          |   |           |
|----------|---|-----------|
| ENGR 301 | The Engineer as Leader .....                            | 3         |
| ENGT     | Solar Engineering.....                                  | 3         |
| ENGT     | Fluid Power Technology .....                            | 3         |
| ENGT 320 | Circuits Technology.....                                | 4         |
| ENGT     | Electrical Power and Machinery .                        | 4         |
| PHIL 385 | Engineering Ethics.....                                 | 3         |
| ENGL 210 | Composition: Business, Prof. and Technical Writing..... | 3         |
| Total    | .....   | (77 hrs.) |

**Engineering Technology (ENGT)**

**Upper-Division Courses**

**ENGT 301. Introduction to Engineering Technology (3).** Introduces students to the history, theories, concepts, roles and trends of engineering technology in society and industry. Prerequisite: junior standing or departmental approval.

**ENGT 302. Applied Mechanics: Statics and Dynamics (3).** Study of Newton's Laws of Motion, force systems, mass acceleration, impulse momentum, resultants and equilibrium, centroids of areas and centers of gravity of bodies, trusses, frames, beams, friction and moments of inertia of areas, and bodies. Prerequisite: MATH 252 or ENGT 312.

**ENGT 303. Introduction to Fluids (3). 2R; 2L.** Provides a fundamental study of fluid mechanics in various applications. Studies include closed and open systems, conservation laws, velocity and acceleration fields, deformation of fluid elements, constitutive relations, flow boundary conditions, nonisothermal flows, dynamics of external flows, Euler and Bernoulli equations, turbo machinery and more. Prerequisites: ENGT 302, MATH 252.

**ENGT 304. Introduction to Strength and Mechanics of Materials (3).** Provides students with a foundational knowledge of strength of materials, with an emphasis on applications and problem solving. Includes topics such as simple stresses and strains, shaft torsion, shear force and bending moment diagrams, beam stresses, combined stresses and experimental stress analysis. Prerequisite: ENGT 302.

**ENGT 320. Circuits Technology (4). 3R; 2L.** Studies electric circuit technology principles and their applications. Includes DC circuits, network theorems, capacitance and inductance, AC, circuit analysis, phasor plane techniques, complex power and balanced three-phase circuits. Includes a laboratory. Prerequisite: MATH 242 or 251.

**ENGT 330. Material Applications in Engineering (4). 3R; 1L.** Presents an overview of structures, properties and applications of metals, polymers, ceramics and composites commonly used in industry. Develops problem-solving skills in the areas of materials selection, evaluation, measurement and testing. Experimentally studies material applications used in aircraft structures, including experiments with metals, polymers, ceramics and composites. Prerequisites: CHEM 211, MATH 252.

**ENGT 332. Aviation Safety and Security (2).** Covers safety in aviation design, operation and maintenance, hazardous materials, airport environment issues, and security regulations for aviation. Explores the physiological and psychological factors relating to flight safety, emphasizing cause and effect of airplane accidents and related problem-solving processes. Includes a systems approach to safety program development and management. Prerequisite: junior standing.

**ENGT 360. Renewable Energy Technology (3).** An overview of renewable engineering issues: planet earth

resources and limitations, human population growth, atmospheric emissions and water contamination. Covers the fundamentals of energy conversion, carbon dioxide and other emissions, and the impact of greenhouse gases. Discusses the role of the engineer and the engineering technologist in economics, design, maintenance and life cycle support of renewable systems and components including recycling and waste management. Considers the impact of public policy on renewable technology developments. Includes typical case studies such as LA smog, CFC refrigerants and ozone depletion, NOx emissions and acid rain, and ground water contamination and remediation. Covers projections of future sustainability issues. Prerequisite: ENGT 301.

**ENGT 361. Industrial Controls and Instrumentation (4). 3R; 1L.** Introduces the principles of measurement and data acquisition, transmission and application in industrial and commercial systems. The theory and application of electronic programmable devices such as programmable logic controllers, temperature controllers, counters, etc. Ladder logic and input/output devices are emphasized. Laboratory exercises include loop wiring, calibration, controller configuration and troubleshooting.

**ENGT 401. Senior Project I (3).** Comprehensively covers the student's concentration in engineering technology and its applications. Students work with faculty to determine their senior project. Prerequisite: engineering technology senior standing.

**ENGT 431. Aerodynamics and Performance (2).** Covers theory of flight, aircraft structure and control, wind tunnel lab demonstrations, propulsion, performance and weight and balance. Prerequisite: ENGT 302.

**ENGT 440. Engineering Technology Management (3).** Introduces the management and control of technologically based projects as they apply to engineering. 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, 255.

**ENGT 490. Sustainable Power Generation (3).** Provides the fundamentals of sustainable power generation including solar, geothermal, biomass, wind, hydro, tidal and wave. Covers embedded renewable generation: technical challenges, opportunities and connection in electrical transmission and distribution grids. Prerequisites: ENGT 360, ME 469.

**ENGT 491. Applied Fluid Mechanics (3). 2R; 2L.** Covers fluid properties, fluid statics, fluid flow concepts, dynamic similitude, fluid resistance, ideal flow, compressible flow, and pneumatic and hydraulic applications. Prerequisite: ENGT 303.

**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 engineering for manufacture (BSMfgE). The industrial engineering and manufacturing engineering degree programs are accredited by the Engineering Accreditation Commission of ABET, <http://www.abet.org>.

The department also offers three graduate degree programs: Master of Engineering Management (MEM), MS in industrial engineering, and PhD in industrial engineering. 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 four areas: foundations of six sigma and quality improvement, lean systems, systems engineering and management, 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, Reliability Lab, Ergonomics Lab, and Open Computing Lab. Students in the academic programs offered by the industrial and manufacturing engineering department get ample opportunity to work on real-life problems in local industries as part of course requirements.

### Bachelor of Science Degree in Industrial Engineering

Industrial engineers (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 experimentation tools to problems in designing, planning, implementing and operating systems. These problems are found in a wide variety of service organizations (such as banks, hospitals, social services, and government agencies), project-based firms (such as construction and consulting), and product-based firms (such as processing, manufacturing and electronics). The focus of industrial engineering is systems integration and improvement.

#### Program Educational Objectives

The 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.

Program graduates will:

1. Be employed in jobs related to designing, modeling, analyzing and managing modern complex systems; implementing and improving systems in manufacturing and service sectors at local, regional, national and global levels;
2. Pursue life-long learning such as graduate studies and research, certification from professional organizations, fundamentals of engineering certification, professional engineering license, etc.; and
3. Achieve professional success through the program's emphasis on experiential learning through solving real world problems.

#### 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 industrial engineering program are given in the accompanying table.

|   |      |
|---|------|
| Course .....  | hrs. |
| <i>Basic Skills:</i>  |      |
| ENGL 101/100 and 102 College English I & II.....  | 6    |
| COMM 111 Public Speaking.....   | 3    |
| PHIL 385 Engineering Ethics.....  | 3    |
| Fine arts, social/behavioral sciences, and humanities courses* .....                    | 15   |
| <i>Mathematics/Natural Sciences:</i>  |      |
| MATH 242, 243 & 344 Calculus I, II, & III.....  | 13   |
| MATH 511 Linear Algebra.....  | 3    |
| ENGR 311 Engineering Physics I.....   | 4    |
| PHYS 314 Physics for Scientists II.....   | 4    |
| CHEM 211 General Chemistry I.....   | 5    |
| IME 254 Engr. Probability & Stats. I.....   | 3    |
| <i>Engineering Core Courses:</i>  |      |
| AE 223 Statics.....   | 3    |
| EE 282 Circuits I.....  | 4    |
| IME 255 Engineering Economy .....   | 3    |
| ME 398 Thermodynamics I.....  | 3    |
| <i>Major Courses:</i>   |      |
| CS 211 Problem Solving & Prg. in C (4),<br>or MIS 310 Fund. of Bus. App. Dev. (3) ..... | 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.....   | 3    |
| IME 565 Systems Simulation .....  | 3    |
| IME 590 & 690 Industrial Engr. 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 Engineering for Manufacture

The engineering for manufacture program prepares students to engineer products as well as their production, in an integrated manner. The goal of design and manufacturing activities is the cost effective conversion of raw materials and intermediate products into higher value products through the use of various design, processing, assembly, automation and mass-production techniques. Students in this program learn to appreciate and use the relationships between design, materials selection, processing, productivity, quality and cost to enhance profitability. The strength of this program is its curriculum in three areas—materials and processes, product engineering and assembly, and manufacturing quality and productivity—with an emphasis on aviation in course materials, projects and a capstone design project. Graduates of this program can apply their broad and comprehensive skills in a wide spectrum of industries.

#### Program Educational Objectives

The educational objectives of the engineering for manufacture program are driven by WSU's mission as an urban university. Specifically, the educational objectives are to prepare its graduates to:

1. Be employed in jobs related to designing, modeling, analyzing and managing modern complex systems; implementing and improving systems in manufacturing sectors at local, regional, national and global levels;
2. Pursue life-long learning such as graduate studies and research, certification from professional organizations, fundamentals of engineering certification, professional engineering license, etc.; and
3. Achieve professional success through the program's emphasis on experiential learning through solving real world problems.

#### Sequence of Courses

The BS in Engineering for Manufacture (BSEMF) program requires the completion of 134 credit hours for graduation, minus hours commensurate with advanced placement credit. Students may select 12 hours of technical electives to emphasize the study of advanced engineering concepts and topics in other engineering disciplines that impact design and processing. Selection of appropriate courses allows 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 engineering for manufacture program are given below.

|  |      |
|--|------|
| Course .....   | hrs. |
| <i>Basic Skills</i>  |      |
| ENGL 101/100 and 102 College English I & II.....                 | 6    |
| COMM 111 Public Speaking.....                                    | 3    |
| PHIL 385 Engineering Ethics.....                                 | 3    |
| Other fine arts/humanities & social/behavioral sciences courses* | 15   |
| <i>Mathematics/Natural Sciences:</i>                             |      |
| MATH 242, 243 & 344 Calculus I, II & III.....                    | 13   |
| MATH 555 Differential Equations I.....                           | 3    |
| ENGR 311 Engineering Physics I.....                              | 4    |
| PHYS 314 Physics for Scientists II.....                          | 4    |
| CHEM 211 General Chemistry I.....                                | 5    |
| IME 254 Engr. Probability & Stats. I.....                        | 3    |
| <i>Engineering Core Courses:</i>                                 |      |
| AE 223 Statics .....   | 3    |
| EE 282 Circuits I.....   | 4    |
| IME 255 Engineering Economy .....                                | 3    |
| ME 398 Thermodynamics I .....                                    | 3    |
| <i>Materials and Design:</i>                                     |      |
| IME 222 Engineering Graphics .....                               | 3    |
| ME 250 & 251 Materials Engineering & Lab .....                   | 4    |
| ME 325 Computer Applications.....                                | 3    |
| AE 333 Mechanics of Materials.....                               | 3    |
| ME 439 ME Design I.....  | 3    |
| IME 576 Composites Manufacturing.....                            | 3    |
| ME 639 Applications of Finite Element Methods in ME.....         | 3    |
| ME 665 Selection of Materials for Design and Manufacturing.....  | 3    |
| <i>Manufacturing</i>   |      |
| IME 258 Manufacturing Methods and Materials I .....              | 3    |
| IME 524 Engr. Probability & Stats. II .....                      | 3    |
| IME 553 Production Systems.....                                  | 3    |
| IME 554 Statistical Quality Control.....                         | 3    |
| IME 558 Manufacturing Methods and Materials II .....             | 4    |
| IME 664 Engineering Management .....                             | 3    |
| IME 676 Aircraft Manufacture & Assmb. ...                        | 3    |
| IME 590 Industrial Engr. Design I.....                           | 3    |

*Technical electives*.....12  
 \* Refer to graduation requirements at the beginning of this section for details.

**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, threaded fasteners, blueprint reading and working drawings. Also uses descriptive geometry to find true lengths of lines; spatial relationships between points, lines and planes; intersections of solids, surfaces and conic sections. Prerequisite: MATH 123 or equivalent.

**IME 254. Engineering Probability and Statistics I (3).** Studies the concepts of probability theory, random variables, distributions, moments, sample statistics and confidence intervals. Prerequisite: MATH 243 or 252.

**IME 255. Engineering Economy (3).** Economic comparisons of engineering alternatives considering the time value of money, taxes and depreciation; accounting and its relationship to economic analysis; replacement decisions. Corequisite: MATH 242 or 251.

**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. 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**

**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. Prerequisite: IME 254. Corequisite: IME 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 549. Industrial Ergonomics (3).** A systematic approach to the optimization of the human-task-environment system. Includes work space design, manual materials handling, work related musculoskeletal disorders and environmental factors. Emphasizes applications in industry. Prerequisite: IME 254 or departmental consent.

**IME 550. Operations Research (3).** Models and methods in operations research. Linear and quadratic programming. Network models and algorithms. Integer, dynamic and nonlinear programming. Unconstrained and constrained optimization. Prerequisite: MATH 511. Corequisite: IME 254.

**IME 553. Production Systems (3).** Quantitative techniques used in the analysis and control of production systems. Includes forecasting, inventory models, operation planning and scheduling. Prerequisite: IME 254. Corequisite: IME 255.

**IME 554. Statistical Quality Control (3).** A study of the measurement and control of product quality using statistical methods. Includes acceptance sampling, statistical process control and total quality management. Corequisite: IME 524.

**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. Prerequisite: 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.

**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, ME 250.

**IME 563. Facilities Planning and Design (3).** Quantitative and qualitative approaches to problems in facilities planning and design, emphasizing activity relationships, space requirements, materials handling and storage, and plant layout. Quantitative and qualitative approaches to selection of material handling devices and design of storage systems, and introduction to concepts of supply chain. Prerequisites: IME 452, 550, 553.

**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 either 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. Prerequisite: AE 333 or instructor's consent.

**IME 590. Industrial Engineering Design I (3).** An industry-based team design project using industrial engineering and manufacturing engineering principles; performed under faculty supervision. May not be counted toward graduate credit. Prerequisites: IME 553; must be within two semesters of graduation or departmental consent.

**IME 658. Forming Processes (3).** Introduction to the fundamentals of deformation and techniques for analysis of forming processes. Application to various bulk forming and sheet metal forming processes. Introduction to applied nonlinear finite element analysis and its application for analysis and design of forming processes. Prerequisite: AE 333.

**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, 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 690. Industrial Engineering Design II (3).** Continuation of the design project initiated in IME 590 or the performance of a second industrial engineering design project; an industry-based team design project using industrial and manufacturing engineering principles; performed under faculty supervision. May not be counted toward graduate credit. Prerequisites: IME 590 and departmental consent.

**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. Not available for undergraduate credit. Prerequisite: MATH 243.

**IME 731. Foundations of Optimization (3).** An extensive treatment of the theories and concepts of linear, nonlinear, constrained and unconstrained optimization techniques. Prerequisite: IME 550.

**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, 255.

**IME 749. Ergonomic Assessment Methods (3).** Covers current and commonly used risk and exposure assessment methods used for musculoskeletal disorders in the workplace. Students develop an understanding and working knowledge of how to evaluate and control the risk of work-related musculoskeletal disorders in the design of workplaces. Critical assessments and discussions of risk and exposure assessment techniques are performed relative to the strengths and weaknesses of each technique as well as the evidence for risk control and validity of the various methods. Replaced IME 760A. Prerequisite: IME 549 or instructor's consent.

**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 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 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 759. Ergonomic Interventions (3).** Provides an understanding and working knowledge of how to evaluate and control the risk of musculoskeletal disorders in the design of workplaces and processes. Scientific aspects of intervention design and effectiveness assessment are discussed, including an assessment of the strengths and weaknesses of the intervention research literature. Replaced IME 760B. Prerequisite: IME 549 or instructor's consent.

**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, 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: 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 nontraditional 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 nontraditional 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. Prerequisite: AE 333 or instructor's approval.

**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. Cr/Ncr only. Prerequisites: departmental consent, graduate GPA of 3.000 or above.

**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, adequate safety stock levels and the risk pooling concept, and integrating decision support systems (DDS) in the management of the supply chain. Prerequisite: IME 553.

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

## Mechanical Engineering (ME)

Mechanical engineering is one of the oldest and broadest engineering fields. Mechanical engineers are vital team members in virtually any industrial activity ranging from concept to design, and analysis to manufacturing from aircraft and automotive to consumer products and building equipment. In these jobs, mechanical engineers design products, machines and develop processes for manufacturing. They analyze, test and develop devices, systems and processes to attain the best performance and durability within cost and time constraints. 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.

Students in the mechanical engineering program are prepared specifically for these job possibilities, and are also empowered to continue their education, i.e., graduate school. 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 communication 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 additional specialized knowledge in engineering 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. The undergraduate program in mechanical engineering is accredited by the Engineering Accreditation Commission of ABET, <http://www.abet.org>.

## 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 2.000 or more credit points per credit hour.

|  |      |
|--|------|
| Course .....   | hrs. |
| <i>Basic Skills:</i>   |      |
| ENGL 101/100 and 102 College English I & II.....                 | 6    |
| COMM 111 Public Speaking.....                                    | 3    |
| PHIL 385 Engineering Ethics.....                                 | 3    |
| Other fine arts/humanities & social/behavioral sciences courses* | 15   |

### Mathematics/Natural Sciences:

|   |    |
|---|----|
| MATH 242, 243 & 344 Calculus I, II & III..... | 13 |
|---|----|

|   |   |
|---|---|
| MATH 555 Differential Equations I.....  | 3 |
| ENGR 311 Engineering Physics I.....     | 4 |
| PHYS 314 Physics for Scientists II..... | 4 |
| PHYS 315 University Physics Lab I.....  | 1 |
| CHEM 211 General Chemistry I.....       | 5 |
| Natural Sciences Elective** .....       | 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:

|  |   |
|--|---|
| AE 333 Mechanics of Materials.....             | 3 |
| AE 373 Dynamics.....                           | 3 |
| IME 222 Engineering Graphics.....              | 3 |
| ME 250 Materials Engineering.....              | 3 |
| ME 251 Materials Engineering Lab.....          | 1 |
| ME 325 Computer Applications.....              | 3 |
| ME 339 Design of Machinery.....                | 3 |
| ME 439 Mechanical Engr. Design I.....          | 3 |
| ME 521 Fluid Mechanics .....                   | 3 |
| ME 522 Heat Transfer .....                     | 3 |
| ME 533 Mechanical Engineering Lab.....         | 3 |
| ME 633 Mechanical Engineering Systems Lab..... | 3 |
| ME 659 Mechanical Control Systems.....         | 3 |
| ME 662 Sr. Capstone Design .....               | 3 |

|  |   |
|--|---|
| Mechanical Engineering Elective** .....  | 3 |
| Mechanical Design Elective** .....       | 3 |
| Thermal Design Elective** .....          | 3 |
| Thermal/Fluids Science Electives** ..... | 3 |
| Technical Electives** .....              | 9 |

\* Refer to graduation requirements at the beginning of this section for details.

\*\* Must be chosen with adviser's approval.

## Dual/Accelerated Bachelor's to Master's Degree

The dual/accelerated bachelor's to master's degree (ABMS) is designed to offer outstanding students the opportunity for advancing their careers by pursuing the bachelor's and master's in a parallel program and accelerated time frame. The ABMS also provides more focused advising, preparing the student for graduate study during their sophomore and junior year. The ABMS program develops a close working relationship between the student and a graduate adviser early in the student's academic career. Eligibility requires ME majors to be within 30–45 hours of graduating and have a WSU GPA of 3.250 or better.

## Mechanical Engineering Honors Track

### Admission Requirements

1. Students must be admitted to the Emory Lindquist 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 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: IME 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, ENGR 311.

**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 selection, 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, 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. May be repeated. Offered Cr/NCr only. Prerequisites: junior standing and approval by the appropriate faculty sponsor.

**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. May be repeated. Offered Cr/NCr only. Prerequisites: junior standing and approval by the appropriate faculty sponsor.

#### 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 521. Fluid Mechanics (3).\*** Fluid statics. Basic equations of fluid mechanics. Study of flow in closed conduits and over immersed bodies. Includes compressible flow, turbomachinery and measurements in fluid mechanics. Prerequisites: ME 398, MATH 555 and AE 373.

**ME 522. Heat Transfer (3).\*** Temperature fields and heat transfer by conduction, convection and radiation. Steady and transient multidimensional conduction, free and forced convection, and combined heat transfer. Discusses various analytical methods, analogies, numerical methods and approximate solutions. Prerequisite: ME 521.

**ME 533. Mechanical Engineering Laboratory (3). 2R; 3L.** Introduces the basics of engineering measurements. Discusses related theory, followed by applications in such areas as strain, sound, temperature and pressure measurements. Format includes lectures, recitation (which presents the concept of the experiment to be performed and the required data analysis), and laboratories. Analyzes the data obtained from measuring systems set up and operated in the laboratory to demonstrate and reinforce fundamental concepts of engineering mechanics. Prerequisites: EE 282, AE 333. Corequisite: ME 522.

**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, 522 or equivalent.

**ME 602. 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 398, 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, plate 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 339 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, 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 651. Biomaterials (3).** Introduction to biomaterials and biotechnology for both undergraduate and graduate students focusing on biomaterials (e.g., metals and alloys, composites, polymers and ceramics), biodevices, basic fabrication and characterization techniques, and their general properties and applications. Prerequisite: ME 250.

**ME 659. Mechanical Control Systems (3).\*** Cross-listed as EE 684. Modeling and simulation of dynamic systems. Theory and analysis of the dynamic behavior of control systems, based on the laws of physics and linear mathematics. Concerns classical methods of feedback control systems and design. Prerequisites: (1) EE 282 and MATH 555, or (2) 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 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 709. Injury Biomechanics (3).** Offers insight into the trauma problem and methods used to quantify and reduce it. Research methods used in injury biomechanics and their limitations are discussed including tests with human volunteers, cadavers, animals, mechanical crash test dummies and computer models. Provides a basic understanding of injury mechanisms and tolerances for the different body parts, including head, spine, thorax and extremities. Presents both automotive and aircraft impact safety regulations on occupant protection and related biomechanical limits. Students are exposed to and gain experience in using mathematical/numerical/computer models for injury biomechanics. Replaced ME 750T. Prerequisite: 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, 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, 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 739. 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 751. Selected Topics (1-3).** New or special topics are presented on sufficient demand. Repeatable for credit when subject material warrants. Prerequisite: departmental consent.

**ME 755. Intermediate Thermodynamics (3).** Laws of thermodynamics, introduction to statistical concepts of thermodynamics, thermodynamic properties, chemical thermodynamics, Maxwell's relations. Prerequisite: ME 502 or departmental consent.

**ME 758. 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 rotor-craft 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. EE 792, Linear Systems, 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 762. Polymeric Composite Materials (3).** Designed to provide students with an understanding and knowledge about 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 stereo mechanics, 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/N/Cr only. Prerequisites: graduate standing, departmental consent, graduate GPA of 3.000 or above.

Please see the WSU 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.





# College of Fine Arts

**Rodney Miller, dean**  
112 Jardine Hall • (316) 978-3389  
[wichita.edu/finearts](http://wichita.edu/finearts)

Wendy Hanes, *assistant dean*

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 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.

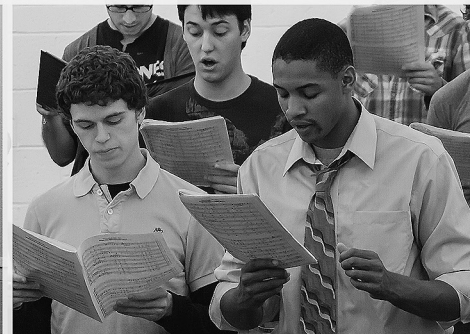
### Graduate

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.

### Special Academic Area Cooperative Education

The College of Fine Arts participates in the university cooperative education internship program.



*Courtesy Photos*

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 26).

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 2.000 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 2.000 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 2.000 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

The College of Fine Arts conforms to the policy set forth by the division of academic affairs at Wichita State University. Some College of Fine Arts programs incorporate specific general education courses, which are required. Students should refer to the General Education Program Requirements section beginning on page 42 as well as their specific program check sheet.

## Inter-College Double Major

An inter-college double major allows a student to complete an academic degree and major in one of the professional colleges (Barton School of Business, College of Education, College of Engineering, College of Fine Arts, College of Health Professions) along with a major in the College of Liberal Arts and Sciences. For details see page 28.

## 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 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 Cr/NCr only. Prerequisite: satisfactory academic standing prior to the first job assignment.

## School of Art and Design

[wichita.edu/artdesign](http://wichita.edu/artdesign)  
**Royce Smith, 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.

## Degrees Offered

The School of Art and Design offers three undergraduate degrees. The Bachelor of Arts in art (BA) degree is a general liberal arts degree and offers the student the opportunity to pursue an emphasis in art or art history. The Bachelor of Fine Arts in art (BFA) degree is a professional degree offering students an emphasis in art education or one of four studio arts areas—ceramics, painting/drawing, printmaking and sculpture. The Bachelor of Fine Arts in graphic design is a professional degree offering students studies in graphic design. The school offers minors in art, art history and graphic design to students outside the school. All degree programs are described in detail in the following section.

## 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.

## Foundation Studies

The Foundation Studies curriculum prepares students with broad technical, conceptual and visual literacy skills that are basic to all areas of art and design. The curriculum is required of all art and design majors, although students interested in the Bachelor of Arts in art, art history emphasis take a slightly narrowed set of courses. Please see the appropriate program section of the catalog for more details on the specific courses required for each degree.

Prior to completing ARTF 202, Mid-Program Review, all art and design students are designated Art/Pre-Art & Design majors.

Upon completion of ARTF 202, Mid-Program Review, students declare a degree path with major emphasis and are eligible for appropriate upper-division coursework. Changing major codes within art and design after completing ARTF 202, Mid-Program Review, requires approval by the art and design faculty in the new major area.

## Transfer Students

Upon acceptance to Wichita State, students must: (1) arrange a meeting with the art and design student records coordinator, at (316) 978-7701; (2) submit a portfolio of artwork from the courses to be transferred using WSU Art and Design's online portal, [wsufinearts.slideroom.com](http://wsufinearts.slideroom.com). Transfer portfolios assist the department in matching the art courses a transfer student has already taken with WSU courses to ensure a smooth transition to the School of Art and Design.

Deadlines for each semester are as follows: fall, September 1; spring, January 23. Transfer portfolios must be submitted by January 23, 2014 to be applied in time for advising. In addition, transfer portfolios submitted by this date will automatically be considered for scholarships

(those received after January 23 will have to apply for scholarships on their own the following year). All transfer portfolios are submitted online at [wsufinearts.slideroom.com](http://wsufinearts.slideroom.com). This online application portal will compile applicants' portfolios, saving partial submissions to allow for return to the portfolio as often as necessary until the application is completed.

Transfer portfolios and applications received after the semester deadline will not be reviewed until the following semester. In such cases students may still be admitted to the School of Art and Design, but with proposed transfer credits subject to the next portfolio review.

### 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 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.

### 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.

### Minimum Grade Requirements

Art and design students must receive a grade of C (2.000 credit points) or better in all art and design courses applied toward their degree requirements. This policy also applies to transfer credits in art and design being applied toward degree requirements.

### Fees

As part of university fees, the College of Fine Arts charges students a fee per credit hour for certain materials, supplies and services that must be provided for the class rather than purchased individually. More information about fees can be found in the Financial Information section of this catalog.

### 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.

### 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.

## School of Art and Design Minor 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, creative writing, English, history, medieval and renaissance studies, and women's studies in the Fairmount 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).

### Minor in Graphic Design

A minor in graphic design is available to any student whose major area is outside the School of Art and Design. The minor consists of a minimum of 15 hours in graphic design courses. After completing an introductory sequence (ARTG 216, 234 and 235) and one upper-division course (ARTG 490) within the graphic design curriculum, the student selects an additional course from a select list (including ARTG 232, Digital Photography Studio I; ARTG 316, Typography II; ARTG 490 Graphic Design Applications; ARTG 5300, Basic Letterpress; or a course in art and design chosen in consultation with an adviser). Recommended plans of study are available in the school office, 302 McKnight East.

## School of Art and Design Degree Requirements

### Bachelor of Arts in Art—Art Emphasis

The Bachelor of Arts (BA) in art degree with an art emphasis is designed 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 graphic design, photography or one or more areas of studio art. 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, Mid-Program Review.

### Degree Requirements

A minimum total of 124 hours is required for the BA in art—art emphasis and includes 52 credit hours of art and art history 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 146).

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, including at least 9 hours of upper-division work. Students whose area of emphasis is graphic design photography 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, history, modern and classical languages, philosophy, psychology, religion, sociology or women's studies. Completion of the certificate in Medieval and Renaissance studies or film 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, graphic design, painting, photography, printmaking and sculpture.

Course .....hrs.  
 General Education.....(42 hrs.)  
     Basic Skills .....12  
     Fine Arts .....3  
     Humanities .....6  
     Social and Behavioral Sciences.....6  
     Natural Sciences and Mathematics.....6  
     Further Study and Issues & Perspectives .....9  
 Foundation Studies Curriculum\* .....13 hrs.  
     ARTF 102 Introduction to Art & Design  
     ARTF 136 Foundation 2-D Design  
     ARTF 145 Foundation Drawing  
     ARTF 189 Foundation 3-D Design  
     ARTF 202 Mid-Program Review  
 Art History .....15 hrs.  
     ARTH 121 & 122 Survey of Art History I & II  
     ARTH 300-level, 2 courses  
     ARTH 500-level, 1 course  
 Art Distribution Requirements.....9 hrs.  
     2-D selection (from ARTS 250, 251, 252 or 261)  
     3-D selection (from ARTS 270, 272, 282 or 283)  
     Design selection (from ARTG 216,  
     234 or 238)

Art and Design Emphasis Area.....15 hrs.  
 A sequence of courses in a selected discipline,  
 at least 9 hours at the 300+ level

Minor in a discipline other than art and design or  
 language proficiency.....15 hrs.

Electives based on plan of study .....15 hrs.  
 Additional coursework in art or other disciplines  
 that complement the student’s plan of study

\*The foundation studies requirements must be completed by the time students have completed 60 credit hours 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.  
 Note: 45+ upper-division hours are required for graduation. Model programs of study are available in the School of Art and Design office and at [finearts.wichita.edu/design](http://finearts.wichita.edu/design).

**Bachelor of Arts in Art–  
 Art History Emphasis**

The Bachelor of Arts (BA) in art degree with an art history emphasis 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.

**Degree Requirements**

A minimum total of 124 hours is required for the BA in art—art history emphasis and includes 37 credit hours of art and art history courses listed below. In addition to the university scholastic, residence and general education requirements, candidates for the degree must complete the 37 hours of art and art history courses with a minimum grade point average of 2.500 and demonstrate through coursework 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 may 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 ARTF 202, Mid-Program 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.

Course .....hrs.  
 General Education.....(42 hrs.)  
     Basic Skills .....12  
     Fine Arts .....3  
     Humanities .....6  
     Social and Behavioral Sciences.....6  
     Natural Sciences and Mathematics.....6  
     Further Study and Issues & Perspectives .....9

Foundation Studies Curriculum\* .....10 hrs.  
     ARTF 102 Introduction to Art & Design  
     ARTF 136 Foundation 2-D Design  
     ARTF 145 Foundation Drawing  
     ARTF 202 Mid-Program Review

Art History .....27 hrs.  
     ARTH 121 Survey of Art History I  
     ARTH 122 Survey of Art History II  
     Four courses at the 300 level  
     ARTH 387 Theories of Art History and Culture  
 (An upper-division course in the theory of art can be substituted for this requirement.)  
     Two courses at the 500 level

Electives .....45 hrs.  
 Electives include the language requirement and courses selected from any university program, including art and design, that fulfill the plan of study.

\*The foundation studies requirements must be completed by the time students have completed 60 credit hours 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.

Note: 45+ upper-division hours are required for graduation. Model programs of study are available in the School of Art and Design office and at [finearts.wichita.edu/design](http://finearts.wichita.edu/design).

**Bachelor of Fine Arts in Art–  
 Art Education Emphasis**

The Bachelor of Fine Arts (BFA) in Art degree with an art education emphasis is designed 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 develop competencies in general studies, professional education and a range of studio art skills. Students must select a specialty in the studio arts from ceramics, painting, printmaking, sculpture, graphic design or art history. The professional education component is dealt with in a practical context, relating 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. There is a four-semester sequence of field work involving a one hour per week assignment during the first semester that increases to an all-day assignment during the fourth semester.

Beginning with the fourth or fifth semester, the curriculum includes five transition points for all teacher candidates. The first point is admission to teacher education. 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 in 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 four 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: PPST, ACT, CAAP and the CBASE, (registration website is [registerblast.com/wsu](http://registerblast.com/wsu)). For additional information see: [arc.missouri.edu/](http://arc.missouri.edu/). Minimum scores required on these national tests are listed in the College of Education section. Application packets are available at [wichita.edu/education/ess](http://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.

**Student Teaching**

The student teaching year involves two semesters, pre student teaching followed by student teaching. 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 pre student 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.

**Degree Requirements**

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 (13 hours), art history (12 hours), art specialization (9 hours), art education emphasis (18 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.

|  |           |
|--|-----------|
| Course .....   | hrs.      |
| General Education .....  | (42 hrs.) |
| Basic Skills (includes MATH 111 or 112) .....                                  | 12        |
| Fine Arts .....  | 3         |
| Humanities .....   | 6         |
| Social and Behavioral Sciences.....  | 6         |
| (includes PSY 111)   |           |
| Natural Sciences and Mathematics .....   | 6         |
| (includes STAT 370)  |           |
| Further Study and Issues & Perspectives .....                                  | 9         |
| Professional Education Sequence .....  | 16 hrs.   |
| CI 270 Intro to the Education Profession                                       |           |
| 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 Diversity: Human Growth & Development                        |           |
| CESP 433 Learning Assessment and Evaluation Theory: Evidence-Based Instruction |           |
| Art Foundation Curriculum* .....   | 13 hrs.   |
| ARTF 102 Introduction to Art & Design  |           |
| ARTF 136 Foundation 2-D Design   |           |

- ARTF 145 Foundation Drawing
- ARTF 189 Foundation 3-D Design
- ARTF 202 Mid-Program Review

Art History .....12 hrs.  
 ARTH 121 & 122 Survey of Art History I & II  
 ARTH 300 level, 1 course  
 ARTH 347 Art Since 1945

Art Education Program Studies.....27 hrs.  
 ARTG 232 Digital Photography Studio I  
 ARTS 240 Introduction to Life Drawing  
 ARTS 250 Introductory Oil Painting, or  
 ARTS 251 Intro Watercolor Painting, or  
 ARTS 252 Intro Acrylic Painting  
 ARTS 270 Basic Ceramics Studio or  
 ARTS 272 Hand Building 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 hrs.  
 Three courses numbering 300 or above from one area not listed above: ceramics, painting/drawing, printmaking, sculpture, graphic design, photography or art history

Art Education Emphasis.....18 hrs.  
 ARTE 310 Elementary Art Ed.  
 ARTE 410 Middle Level Art Ed.  
 ARTE 414 Secondary Art Ed.  
 ARTE 459 Student Teaching in Elementary Art  
 ARTE 462 Student Teaching in the Secondary School: Art  
 ARTE 517 Student Teaching Seminar in Art

\*The foundation studies requirements must be completed by the time students have completed 60 credit hours 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.

Note: 45+ upper-division hours are required for graduation. Model programs of study are available in the School of Art and Design office and at [finearts.wichita.edu/design](http://finearts.wichita.edu/design).

**Bachelor of Fine Arts in Art—Studio Art Emphasis**

The Bachelor of Fine Arts (BFA) in art degree with an emphasis in studio 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.

**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, collagraph and papermaking. The program provides a wide exposure to traditional and contemporary techniques.

**BFA in Art – Sculpture Emphasis**

The Bachelor of Fine Arts (BFA) 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, nontraditional 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.

**Degree Requirements**

A minimum total of 126 hours is required for the BFA in art—studio art emphasis and includes 84 credit hours of art and art history courses listed below. Students must also meet the university’s scholastic, residence and general education requirements for graduation.

|   |           |
|---|-----------|
| Course .....                                  | hrs.      |
| General Education .....                       | (42 hrs.) |
| Basic Skills .....                            | 12        |
| Fine Arts .....                               | 3         |
| Humanities .....                              | 6         |
| Social and Behavioral Sciences.....           | 6         |
| Natural Sciences and Mathematics.....         | 6         |
| Further Study and Issues & Perspectives ..... | 9         |
| Foundation Curriculum* .....                  | 13 hrs.   |
| ARTF 102 Introduction to Art & Design         |           |
| ARTF 136 Foundation 2-D Design                |           |
| ARTF 145 Foundation Drawing                   |           |
| ARTF 189 Foundation 3-D Design                |           |
| ARTF 202 Mid-Program Review                   |           |

|                                   |         |
|-----------------------------------|---------|
| Art History .....                 | 15 hrs. |
| ARTH 121 Survey of Art History I  |         |
| ARTH 122 Survey of Art History II |         |
| ARTH 300 level, one course        |         |
| 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 Studio        |         |
| ARTG 216, 234 or 238 graphic design |         |

|  |         |
|--|---------|
| Studio Art Emphasis .....  | 29 hrs. |
| <small>(All courses are in the emphasis area except Professional Practices, Intermediate &amp; Advanced Drawing)</small> |         |
| 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. |
| Courses should complement the introductory art and emphasis area courses. |        |

\*The foundation studies requirements must be completed by the time students have completed 60 credit hours 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.

Note: 45+ upper-division hours are required for graduation. Model programs of study are available in the School of Art and Design office and at [finearts.wichita.edu/design](http://finearts.wichita.edu/design).

**Bachelor of Fine Arts in Graphic Design**

The Bachelor of Fine Arts (BFA) 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.

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, websites 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.

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 Mid-Program Review. A limited number of students are accepted into the program based on portfolio review during ARTF 202, Mid-Program Review. Students admitted into the program are required to complete the graphic design emphasis coursework during the four consecutive semesters of their junior and senior years. They are also required to enroll in ARTG 354, Professional Practices in Graphic Design each of those semesters for a total of four credits.

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 (13 hours), art history (12 hours), art distribution requirements (9 hours), graphic design program studies (34 hours), and graphic design electives (15 hours).

**Degree Requirements**

A minimum total of 125 hours is required for the BFA in graphic design and includes 67 credit hours of art and art history courses listed below. Students must also meet the university’s scholastic, residence and general education requirements for graduation.

|   |           |
|---|-----------|
| Area- .....   | hrs.      |
| General Education .....                             | (42 hrs.) |
| Basic Skills .....                                  | 12        |
| Fine Arts .....                                     | 3         |
| Humanities .....                                    | 6         |
| Social and Behavioral Sciences.....                 | 6         |
| Natural Sciences and Mathematics.....               | 6         |
| Further Study and Issues & Perspectives .....       | 9         |
| Foundation Curriculum* .....                        | 13 hrs.   |
| ARTF 102 Introduction to Art & Design               |           |
| ARTF 136 Foundation 2-D Design                      |           |
| ARTF 145 Foundation Drawing                         |           |
| ARTF 189 Foundation 3-D Design                      |           |
| ARTF 202 Mid-Program Review                         |           |
| Art History .....                                   | 12 hrs.   |
| ARTH 121 & 122 Survey of Art History I & II         |           |
| ARTH 300 level, 1 course                            |           |
| ARTH 300–500 level, 1 course                        |           |
| Art Distribution Requirements.....                  | 9 hrs.    |
| 2-D selection (from ARTS 250, 251, 252, 261 or 262) |           |
| 3-D selection (from ARTS 270, 272, 282 or 283)      |           |
| Design selection (ARTG 234)                         |           |
| BFA Graphic Design Program Studies .....            | 9 hrs.    |
| ARTG 216 Typography I                               |           |
| ARTG 235 Graphic Design Studio II                   |           |
| ARTG 238 Graphic Materials and Processes            |           |

|   |         |
|---|---------|
| <i>Graphic Design Emphasis</i> .....          | 25 hrs. |
| ARTG 316 Typography II                        |         |
| ARTG 334 Graphic Design Studio III            |         |
| ARTG 335 Graphic Design Studio IV             |         |
| ARTG 337 Drawing for Visual Comm.             |         |
| ARTG 354 Professional Pract. in GD (4 smstr.) |         |
| ARTG 434 Graphic Design Studio V              |         |
| ARTG 435 Graphic Design Studio VI             |         |
| ARTG 490 Graphic Design Applications          |         |

*Graphic Design Electives*..... 15 hrs.  
Graphic design electives should be chosen with the approval of a graphic design adviser. In addition to any graphic design course, students may also choose electives from other courses offered in the School of Art and Design including studio arts, art education and art history. Students may also choose classes from other programs within the university including communications, business, entrepreneurship, marketing and theatre.

\*The foundation studies requirements must be completed by the time students have completed 60 credit hours 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.

Note: 45+ upper-division hours are required for graduation. Model programs of study are available in the School of Art and Design office and at [finearts.wichita.edu/design](http://finearts.wichita.edu/design).

## Art and Design Courses

### Foundation (ARTF) Courses

#### Lower-Division Courses

**ARTF 102. Introduction to Art and Design (3).** 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, 145.

**ARTF 103. Introduction to Art and Design: Laboratory (1).** Taught in conjunction with ARTF 102. Corequisites: ARTF 102, 136, 145.

**ARTF 136. Foundation 2-D Design (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 communication. Instructional process includes lecture, critique and supervised studio practice. Prerequisite: ARTF 136.

**ARTF 145. Foundation Drawing (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. Mid-Program Review (1).** Designed to assist students in preparing a plan of study for upper-division coursework in one of three undergraduate degrees, to provide structured advising on reaching career goals near the mid-point of undergraduate study, and to provide preprofessional experience through preparing and/or mounting a portfolio or dossier for faculty evaluation in meeting expected mid-program competencies. Offered Cr/NCr. Prerequisites: completion of the foundation program (ARTF 102, 136, 145, and 189), completion of three of the general education basic skills requirements, and the completion of/concurrent enrollment in the fourth; completion of/concurrent enrollment in ARTH 121, and 122; completion of/concurrent enrollment in two introductory courses from different media areas, from—ARTS 2D (250, 251, 252, 261); ARTS 3D (270, 272, 282, 283); and/or ARTG (216, 234, 238).

### Art Education (ARTE) Courses

#### Lower-Division Courses

**ARTE 150. Art Education 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 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: art education major and successful completion of Mid-Program Review or instructor's consent.

**ARTE 311. Art Education Curriculum in the Elementary School (2).** Studies developmental characteristics of the elementary-age student and the development of the art program with respect to materials, skills, and knowledge content.

**ARTE 313. Fiber Exploration (3).** Focuses on fiber experiences appropriate for the classroom on the intermediate or secondary level. Explores various kinds of looms weaving, braiding, and twisting techniques that result in a fabric or web. Explores simple dye techniques.

**ARTE 350. Art Workshop (1-3).** Repeatable for credit. Area covered is determined at the time course is offered.

**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, reading, comprehension, 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 precedes 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 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. Microcomputer 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 microcomputer software and hardware. Students apply the Macintosh computer to art curriculum and instruction. Prerequisite: ARTE 310 or equivalent.

**ARTE 459. Student Teaching in Elementary Art (4-6).** Prerequisites: acceptance into Core III student teaching semester, ARTE 410, CI 328, CESP 433; 2.500 GPA overall. Corequisites: ARTE 462, 517.

**ARTE 462. Student Teaching in the Secondary School: Art (4–6).** Prerequisites: acceptance into Core III student teaching semester, ARTE 410, CI 328, CESP 433; 2.500 GPA overall. Corequisites: ARTE 459, 517.

**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 and acknowledged 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 (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 750. Art Workshop (1–3).** Repeatable for credit. Area to be covered is determined at the time course is offered.

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

## Graphic Design (ARTG) Courses

### Lower-Division Courses

**ARTG 110. Vector Applications (1).** Introduction to using vector drawing applications like Adobe Illustrator to create artwork.

**ARTG 111. Pixel-Based Applications (1).** Introduction to using pixel-based applications like Adobe Photoshop to create artwork.

**ARTG 112. Layout Applications (1).** Introduction to using layout applications like Adobe InDesign to create artwork.

**ARTG 200. Introduction to Computer Graphics (3).** Introduces computer graphic programs in the Macintosh computer environment. Prerequisites: ARTF 136, 145 or instructor's consent.

**ARTG 216. Typography I (3).** Introduces typography, including history, comping skills, stylistic considerations, grid structures, working with copy and visual and informational hierarchical arrangement upon a single page. Prerequisites: completion of the foundation program (ARTF 102, 136, 145, 189, 202).

**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 Photography Studio I (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, application of design principles in communication problems, mark/symbol making and basic layout principles. Prerequisites: completion of the foundation program (ARTF 102, 136, 145, 189, 202).

**ARTG 235. Graphic Design Studio II (3).** Studies graphic design theory, philosophy, history and approaches to creative problem solving including brainstorming, concept generation and application of solutions. Prerequisites: completion of the foundation program (ARTF 102, 136, 145, 189, 202).

**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, 136, 145, 189, 202).

**ARTG 281. Cooperative Education (1–8).** Allows students to participate in the cooperative education program. Graded *Cr/NCr* only.

### Upper-Division Courses

**ARTG 316. 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 or ARTG 216 and instructor's consent.

**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. Prerequisite: ARTG 231.

**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. Prerequisites: ARTG 235, 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. Repeatable for credit. Prerequisites: ARTG 316, 334.

**ARTG 337. Drawing for Visual Communication (3).** Applied drawing for graphic design. Prerequisite: acceptance to the graphic design BFA program or instructor's consent.

**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 354. Professional Practices in Graphic Design (1).** Research into and practical application of professional practices, portfolio development, business skills and career planning specific to the field of graphic design. Requires attendance at professional design events and creation/maintenance of a professional portfolio. Repeatable for credit. This course replaces ARTG 353 and 453 effective fall 2013. Prerequisite: acceptance to the graphic design BFA program.

**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.

**ARTG 435. Graphic Design Studio VI (3).** Use of media and formats to create visually cohesive advertising and promotional campaigns. Prerequisite: ARTG 434.

**ARTG 437. Drawing for Visual Communication II (3).** Concentration in editorial and narrative illustration emphasizing visualization and creative problem solving while exploring a variety of color media and techniques. Prerequisite: 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 481. Cooperative Education (1–8).** See ARTG 281.

**ARTG 490. Graphic Design Applications (3).** Focuses on emerging technologies for various media. Repeatable for credit. Prerequisite: acceptance to the graphic design BFA program or instructor consent.

**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 remainder. 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. Prerequisite: ARTG 431 or 432.

**ARTG 530. Seminar in Graphic Design (3).** Supervised study and research. Requires weekly consultation and reports. Repeatable for credit. Prerequisite: instructor's 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 A.D.

>**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/NCr 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 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 387. 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 481. Cooperative Education (1–8).** See ARTH 281.

### 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 WSU Graduate Catalog for courses numbered 800 and above.

## Studio Art (ARTS) Courses

### 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 240. Introduction to Life Drawing (3).** Introduction to drawing the human form emphasizing critical inquiry and analytical observation. Includes the study of skeletal and muscular structure. Students develop an understanding of the structure of the figure and demonstrate a degree of facility in its representation from observation and from imagination. Structured homework assignments. Lab fee. Prerequisites: ART 145, 146.

**ARTS 245. Digital Studio (3).** Introduction to processes, tools, history and contemporary practice of creating artworks with and for computers and software. Includes drawing, printing, video and web-based media.

**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.

**ARTS 261. Introductory Printmaking (3).** Focus on intaglio, relief, silkscreen 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 on connections between printmaking, graphic design, photography and new approaches to print media. Prerequisite: ARTS 261 or instructor's consent.

**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 reliefs. Emphasizes the creative use of clay to make a personal statement. Explores various surface treatments and firing techniques. Emphasizes issues of content and one's ideas. Required for upper-level courses.

**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 nonmajors.

**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. Alternative approaches as well as traditional methods are encouraged. Experimentation and creative problem solving are important to all aspects of the curriculum.

**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. Alternative approaches as well as traditional metal and wood constructions are encouraged. Experimentation and creative problem solving are important to all aspects of the curriculum.

### Upper-Division Courses

**ARTS 341. Life Drawing Studio (3).** Advanced analysis and interpretation of the human figure through individualized projects and assignments in multiple art and design applications. Emphasizes individual development, technical advancement and personalized interpretation. Repeatable for credit. Prerequisites: ARTF 202, ARTS 240.

**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.

**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 l'oeil, 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.

**ARTS 360. Intermediate Intaglio Print I (3).** Builds on skills developed in ARTS 261. Provides exploratory print experiences in collagraph, relief, monoprint and paper technology. Encourages color printing in monoprint and intaglio. Prerequisites: ARTF 145, ARTS 261, 262.

**ARTS 361. Intermediate Lithography Print I (3).** Introduction to lithography printing from aluminum plates and limestone. Focuses on black and white printing using drawn methods. Prerequisite: ARTS 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.

**ARTS 363. Intermediate Lithography Print II (3).** Printmaking techniques and materials are similar to those in ARTS 361, but this course emphasizes more involvement with color printing. The format is generally larger, with a more involved focus on multiple plate/stone techniques and photo litho processes. Mixing of techniques is encouraged. Prerequisite: ARTS 361.

**ARTS 366. Printmaking Techniques—Lithography and Silkscreen (3).** Building on the principles covered in ARTS 261, this course encourages mastery of technique, image development and creative growth. Designed to further the development of traditional and contemporary techniques of lithography and silkscreen. Repeatable for credit. Prerequisite: ARTS 261.

**ARTS 367. Printmaking Techniques—Intaglio and Relief (3).** Building on the principles covered in ARTS 261, this course encourages mastery of technique, image development and creative growth. Designed to further the development of traditional and contemporary techniques of intaglio and relief. Repeatable for credit. Prerequisite: ARTS 261.

**ARTS 369. Intermediate Printmaking Studio (3).** Designed to focus on the exploration of concepts and the aesthetic development of the print media. Investigates the historical and contemporary application of the *multiple*, while developing an understanding of both its function and aesthetics within our culture. Repeatable for credit. Prerequisite: ARTS 261.

**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. Repeatable for credit. Prerequisite: ARTS 270.

**ARTS 371. Intermediate Ceramics Studio II (3).** Second course in intermediate 300-level series. Builds and expands on information in ARTS 370. Prerequisite: ARTS 370.

**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 and research related to historical as well as contemporary studies of clay vessels and sculptural forms. Prerequisite: ARTS 272 or 282.

**ARTS 373. Intermediate Ceramics Studio III (3).** Third course in intermediate 300-level series. Builds and expands on ARTS 371. Introduces clay bodies, glazes and firing methods through lecture and demonstration. Prerequisite: ARTS 371.

**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.

**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, CO<sub>2</sub> 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.

**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 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, 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, 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 554. Advanced Painting (4).** For the professionally-oriented student. Emphasizes independent study. Preparation for ARTS 557. Repeatable for credit. Prerequisites: ARTS 358 and portfolio review.

**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 560. Advanced Intaglio (4).** Students may specialize in any of the various intaglio, relief, collagraph, paper-casting techniques while emphasizing personal aesthetic development. Preparation for ARTS 567. Repeatable for credit. Prerequisite: ARTS 362.

**ARTS 561. Advanced Lithography (4).** Students may specialize in any of the various lithography techniques while developing a personal aesthetic direction. Preparation for ARTS 567. Repeatable for credit. Prerequisites: ARTS 361, 363.

**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. Prerequisites: ARTS 560 or 561, completion of/concurrent enrollment in ARTS 495, and/or instructor's consent.

**ARTS 570. Advanced Ceramics (4).** Builds on ARTS 373. Investigates advanced studies of clay bodies, glazes and firing methods. Emphasis on self-directed study and critical analysis. Preparation for ARTS 577. Repeatable for credit. Prerequisites: ARTS 373 and/or instructor's consent.

**ARTS 572. Advanced Hand Building (4).** First course in advanced 500-level series of hand building. Builds and expands on ARTS 372. Students investigate means of expression through various hand-building techniques. Through critical analysis, students develop a personal statement with clay. Investigates advanced studies of clay bodies, glazes and firing methods. Preparation for ARTS 577. Repeatable for credit. Prerequisites: ARTS 372 and/or instructor's consent.

**ARTS 574. Advanced Study of Kiln Methods (3).** Advanced study of kiln firing, design and construction with emphasis on creative research. 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, 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: departmental consent.

**ARTS 580. Advanced Sculpture (4).** Sculpture in any medium, emphasizing individual development and creativity. Preparation for ARTS 587. Repeatable for credit. Prerequisites: ARTS 282, 283, 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. Prerequisites: ARTS 282, 283, 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 282, 283, 580, completion of/concurrent enrollment in ARTS 495, and/or instructor's consent.

**ARTS 590. Studio Art Topics (3).** Addresses new topics that change as special opportunities arise and new and experimental course topics develop. The goal of these courses is to enhance and expand on current studio art courses.

**ARTS 595. Galleries and Exhibitions (3).** Professional, practical, theoretical aspects of managing, organizing, marketing, funding and designing art exhibitions through installations in student art galleries, readings and lectures. Includes experiential assignments. Repeatable for credit. Replaced ARTS 350W, 550R. Prerequisite: ARTF 202 or faculty approval.

**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.

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

## School of Music

[finearts.wichita.edu/music](http://finearts.wichita.edu/music)  
Russell D. Widener, 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 nonmajor 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 10 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 (nonmajors), 231 and 232; juniors and seniors, MUSA 112 (nonmajors), 431, 432 and 434\*; and graduate students, MUSA 712 (nonmajors), 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.

\*Performance majors or designated students only may enroll in 434 or 734.

**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 BME 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.

\*See BME degree requirements for specific recital requirements in those degree plans.

**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 Undergraduate 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**

|  |  |
|--|--|
| <i>Area</i> .....                                | <i>hrs.</i>                                      |
| Applied Music.....                               | (20 hrs.)  |
| Chief performing medium (piano, organ) ...       | 16   |
| Other performing medium.....                     | 4  |
| <i>or</i>  |  |
| Chief performing medium (non keybd.).....        | 8  |
| Keyboard performing medium .....                 | 8  |
| Other performing media.....                      | 4  |
| Theory and Composition.....                      | 40   |
| MUSC 127–129, 128–130, 227–229, 228–230,         | 259, 260, 523, 531, 560, 561, 641, 660, 671, 672 |
| History and Literature of Music.....             | 12   |
| MUSC 113, 334, 335, and 3 hours of upper-        | division electives in music history or           |
| literature or MUSC 162                           |  |
| Conducting .....                                 | 4  |
| MUSP 307 or 308 and 651 or 691                   |  |
| Ensembles*§ .....                                | 8–10   |
| Recital attendance (four smstr of MUSP 105) .... | 0  |
| Senior Recital (MUSP 400).....                   | 1  |

\*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**

|                                  |   |
|----------------------------------|---|
| MUSA 313J Basic Jazz Piano ..... | 2 |
|----------------------------------|---|

|                                    |    |
|------------------------------------|----|
| MUSC 240 Jazz Music Theory 3 ..... | 2  |
| MUSC 241 Jazz Aural Skills 3 ..... | 2  |
| MUSC 242 Jazz Music Theory 4 ..... | 2  |
| MUSC 243 Jazz Aural Skills 4.....  | 2  |
| MUSC 345 Jazz Arranging .....      | 2  |
| MUSC 346 Styles of Jazz .....      | 3  |
| MUSC 120 Jazz Improv 1 .....       | 2  |
| MUSC 121 Jazz Improv 2 .....       | 2  |
| MUSE 511 Jazz Pedagogy .....       | 2  |
| MUSC 348 History of Jazz .....     | 3  |
| <i>Total</i> .....                 | 24 |

**BM in Performance–Instrumental Emphasis**

|   |   |   |
|---|---|---|
| <i>Area</i> .....                                 | <i>hrs.</i>                                 |   |
| Applied Music.....                                | (28 hrs.)                                   |   |
| Chief performing medium.....                      | 24  |   |
| Second performing medium (four smstrs.)....       | 4   |   |
| Theory .....                                      | 22  |   |
| MUSC 127–129, 128–130, 227–229, 228–230,          | 523, 561 or 641                             |   |
| 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 307 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/ | semester for four semesters, MUSP 105)..... | 0 |

\*See degree check sheets for specified ensembles.  
§ Ensembles are counted by semester.

**BM in Performance–Keyboard Emphasis**

|  |                                      |
|--|--------------------------------------|
| <i>Area</i> .....                            | <i>hrs.</i>                          |
| All Programs                                 |                                      |
| Applied Music                                |                                      |
| Chief performing medium (see specific major) |                                      |
| Second performing medium .....               | 4                                    |
| Theory .....                                 | 22                                   |
| MUSC 127–129, 128–130, 227–229,              | 228–230, 523, 561, 345 or 641 or 753 |
| History and Literature of Music.....         | 9                                    |
| MUSC 113, 334 and 335                        |                                      |
| Conducting .....                             | 4                                    |
| MUSP 307 or 308                              |                                      |
| Ensembles*§ (see specific major)             |                                      |
| Recital Attendance                           |                                      |
| MUSP 105 (enrollment for four semesters      |                                      |
| in a specified number of recitals).....      | 0                                    |

\*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 |

(Four semesters of accompanying required for all Bachelor of Music piano majors and 4 hours of appropriate ensemble. Keyboard scholarship recipients are required to enroll in accompanying or an ensemble each semester they hold a scholarship.)

|  |   |
|--|---|
| MUSP 300, Junior Recital (piano) ..... | 1 |
| MUSP 400, Senior Recital (piano) ..... | 1 |

\*See degree check sheets for specified ensembles.  
§ Ensembles are counted by semester.

### Piano Accompanying Emphasis

|  |    |
|--|----|
| Applied Piano .....                            | 16 |
| Second performing medium.....                  | 4  |
| Applied Piano Accompanying.....                | 12 |
| MUSP 223, 224, 423 and 424                     |    |
| Italian, English, German, French Diction.....  | 4  |
| MUSP 121, 122, 221, 222                        |    |
| MUSP 207–407, Piano Repertoire .....           | 4  |
| MUSP 580, Piano Pedagogy.....                  | 2  |
| MUSC 726, Voice Literature.....                | 3  |
| MUSC 685, String Literature and Materials..... | 2  |
| Ensembles*§ .....                              | 8  |

(Four semesters of accompanying required for all Bachelor of Music piano majors and 4 hours of appropriate ensemble. Keyboard scholarship recipients are required to enroll in accompanying or an ensemble each semester they hold a scholarship.)

|  |   |
|--|---|
| MUSP 300, Junior Recital (piano) ..... | 1 |
| MUSP 450 and 451, (Senior)             |   |

Accompanying Recital.....2  
\*See degree check sheets for specified ensembles.  
§ Ensembles are counted by semester.

### Piano Pedagogy Emphasis

|  |    |
|--|----|
| Applied Piano .....                        | 24 |
| Second performing medium.....              | 4  |
| MUSP 207–407, Piano Repertoire .....       | 6  |
| MUSP 580, Piano Pedagogy.....              | 2  |
| MUSP 581, Piano Teaching Materials.....    | 2  |
| MUSC 782 and 783, Piano Literature.....    | 6  |
| MUSP 790, Special Topics (designated)..... | 4  |
| Ensembles*§ .....                          | 8  |

(Four semesters of accompanying and 4 hours of appropriate ensemble required for all Bachelor of Music piano majors. Keyboard scholarship recipients are required to enroll in accompanying or an ensemble each semester they hold a scholarship.)

|  |   |
|--|---|
| 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 ..... | 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 hrs.) |
| Voice .....  | 24        |
| Piano (two semesters) .....  | 2         |
| Study in another instrument may be substituted if student meets piano proficiency requirement. |           |
| Theory .....   | 16        |
| MUSC 127–129, 128–130, 227–229, 228–230  |           |
| History and Literature of Music.....   | 9         |
| MUSC 113, 334 and 335  |           |
| Performance studies.....   | 3         |
| MUSP 211E or 411E, Opera Lab   |           |
| MUSP 308, Choral Conducting  |           |
| Literature and Diction.....  | 9         |
| MUSP 121, 122, 221, 222,   |           |
| MUSP 625, Voice Pedagogy   |           |
| MUSC 726, Voice Literature   |           |
| Ensembles*§ .....  | 10        |
| Electives .....  | 3         |

Choose from:  
MUSP 211E \*\*or 411E\*\*, 340  
MUSC 623, 624  
DANC 227\*\* or 210\*\*  
THEA 243, 254

|  |    |
|--|----|
| Recital attendance (specified number of recitals per semester for four smstr., MUSP 105) ..... | 0  |
| Junior Recital (MUSP 300) .....  | 1  |
| Senior Recital (MUSP 400).....   | 1  |
| Foreign language.....  | 10 |
| ITAL 111 plus choose 5 hours from  |    |
| ITAL 112, FREN 111 and/or 112  |    |
| GERM 111 and/or 112  |    |

\*See degree check sheets for specified ensembles.

\*\*If not taken in performance studies

§ Ensembles are counted by semester.

### BM with Elective Studies in Business

|  |           |
|--|-----------|
| Area .....                                   | hrs.      |
| Applied Music.....                           | (20 hrs.) |
| Chief performing medium.....                 | 16        |
| Second performing medium (four smstr.) ..... | 4         |
| Theory .....                                 | 20        |
| MUSC 127–129, 128–130, 227–229, 228–230,     |           |
| 561, 641 or 753 or 345                       |           |
| History and Literature of Music.....         | 9         |
| MUSC 113, 334, and 335                       |           |
| Conducting .....                             | 4         |
| MUSP 307 or 308 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 smstr., MUSP 105) ..... | 0  |
| Business Requirements .....  | 21 |
| ECON 201, 202 (6); ACCT 210, MGMT 360  |    |

(6); FIN 340 (3); MKT 300 & BLAW 431 (6)

\*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 hrs.) |
| Chief performing medium.....                   | 16        |
| Second performing medium (four smstr.) .....   | 4         |
| Theory .....                                   | 20        |
| MUSC 127–129, 128–130, 227–229, 228–230,       |           |
| 561, 641 or 753 or 345                         |           |
| History and Literature of Music.....           | 9         |
| MUSC 113, 334, 335                             |           |
| Conducting; MUSP 307 or 308 and 651 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 smstr., MUSP 105) ..... | 0  |
| Journalism Requirements .....  | 21 |
| COMM 130 (3), 301 (3), 401 (3), 500 (3), 550   |    |
| (3), 630 (3), 675 (3)  |    |

\*See degree check sheets for specified ensembles.

§ Ensembles are counted by semester.

### BM with Elective Studies in Journalism Advertising/Public Relations Emphasis

|  |           |
|--|-----------|
| Area .....                                   | hrs.      |
| Applied Music.....                           | (20 hrs.) |
| Chief performing medium.....                 | 16        |
| Second performing medium (four smstr.) ..... | 4         |
| Theory .....                                 | 20        |
| MUSC 127–129, 128–130, 227–229, 228–230,     |           |
| 561, 641 or 753 or 345                       |           |
| History and Literature of Music.....         | 9         |
| MUSC 113, 334 and 335                        |           |
| Conducting .....                             | 4         |
| MUSP 307 or 308 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 smstr., MUSP 105) ..... | 0  |
| Journalism requirements .....  | 24 |
| COMM 130 (3), 301 (3), 304 (3), 324 (3),   |    |
| 502 or 525 (3), 550 (3), 630 (3), 675 (3)  |    |

\*See degree check sheets for specified ensembles.

§ Ensembles are counted by semester.

### BM with Elective Studies in Journalism Broadcasting Emphasis

|  |           |
|--|-----------|
| Area .....                                   | hrs.      |
| Applied Music.....                           | (20 hrs.) |
| Chief performing medium.....                 | 16        |
| Second performing medium (four smstr.) ..... | 4         |
| Theory .....                                 | 20        |
| MUSC 127–129, 128–130, 227–229, 228–230,     |           |
| 561, 641 or 753 or 345                       |           |
| History and Literature of Music.....         | 9         |
| MUSC 113, 334, 335                           |           |

Conducting ..... 4  
 MUSP 307 or 308 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 smstr., MUSP 105)..... 0

Journalism requirements ..... 24  
 COMM 130 (3), 301 (3), 304 (3), 332 (3), 422 (3), 604 (2), 630 (3), 675 (3)

\*See degree check sheets for specified ensembles.  
 § Ensembles are counted by semester.

**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 111, 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 Requirements for Graduation section of the Undergraduate Catalog.

**Bachelor of Music Education—Instrumental**

*Area* ..... hrs.

*Music Requirements*

Applied Music..... (16 hrs.)  
 primary medium..... 14  
 secondary medium..... 2  
 Students must be enrolled in applied music during the semester of their senior recital.

General Music..... (33–37 hrs.)  
 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 307, 651  
 Additional Requirements..... 2  
 MUSP 207, 407 (piano majors only)

Ensembles\*§ ..... 7

Recital attendance (two smstr. of MUSP 105).... 0

Senior Recital (MUSP 400)..... 1

*Music Education Requirements*

Introduction ..... 3  
 MUSE 171, 271

Core I ..... 9  
 CESP 334; CI 311, 321; MUSE 617, 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, 686, or 790S 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 hrs.)  
 primary medium..... 14  
 secondary medium..... 2  
 Students must be enrolled in applied music during the semester of their senior recital.

General Music..... (33–37 hrs.)  
 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 307 or 308 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)..... 0

Senior Recital (MUSP 400)..... 1

*Music Education Requirements*

Introduction ..... 3  
 MUSE 171, 271

Core I ..... 9  
 CESP 334; CI 311, 321; MUSE 617, 611

Core II ..... 10  
 CESP 433; MUSE 303, 305, 323

Core III ..... 12  
 MUSE 405, 451, 469

Additional Requirements..... 4  
 MUSE 241, 242, 342

\*See degree check sheets for specified ensembles.  
 § Ensembles are counted by semester.

**Bachelor of Special Music Education**

*Area* ..... hrs.

*Music Requirements*

Applied Music..... (16 hrs.)  
 primary medium..... 14  
 secondary medium..... 2  
 Students must be enrolled in applied music during the semester of their senior recital.

General Music..... (33–37 hrs.)  
 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 307 or 308 and 651 or 691  
 Additional Requirements..... 4-10  
 MUSP 207, 407, 580, or 581 (piano mjrs. only)

Ensembles\*§ ..... 7-9

Recital attendance (two smstr. of MUSP 105).... 0

Senior Recital (MUSP 400)..... 1

*Music Education Requirements*

Introduction ..... 3  
 MUSE 171, 271

Core I ..... 9  
 CESP 334; CI 311, 321; MUSE 617, 611

Core II ..... 10  
 CESP 433; MUSE 303 or 304, 305, 309, 323, or 324

Core III ..... 14  
 MUSE 405, 451, 452, 469

Additional Requirements..... 4-10  
 Instrumental Majors: MUSE 235, 236, 237, 238, 239, 240, 342, 686, 790S or MUSP 620  
 Vocal & Keyboard mjrs: MUSE 241, 242, 342

\*See degree check sheets for specified ensembles.  
 § Ensembles are counted by semester.

**Bachelor of Arts in Music**

Students who wish to earn a Bachelor of Arts (BA) in music are required to complete courses in the Fairmount College of Liberal Arts and the College of Fine Arts as indicated in the music degree check sheets and to elect 50 music hours as specified in the following areas and course listings.

Candidates for the degree must also complete a minor in a discipline other than music,

or proficiency in a foreign language at a level equivalent to 5 hours beyond the 112 course.

|   |      |
|---|------|
| Area .....  | hrs. |
| Group I   |      |
| Music Literature and History .....  | 12   |
| MUSC 113, 334, 335, and 162, or 3 hours of upper-division electives in music history or literature.       |      |
| Group II  |      |
| Music Theory .....  | 22   |
| MUSC 127–129, 128–130, 227–229, 228–230, 523, 561, 641  |      |
| Group III   |      |
| Conducting MUSP 307 or 308 .....  | 2    |
| Group IV  |      |
| Applied Music .....   | 8    |
| Group V   |      |
| Ensembles*§ .....   | 7    |
| Group VI  |      |
| Electives from the areas of music literature, music theory, applied music, conducting and ensembles ..... | 9    |
| Group VII   |      |
| Recital attendance .....  | 0    |
| Four semesters, MUSP 105  |      |

\*See degree check sheets for specified ensembles.

§ Ensembles are counted by semester.

### 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, applied music (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 musicianship and develops strategies for leading music activities in a variety of scenarios. Learn observation techniques 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. Wind & Percussion Methods I—Woodwind Emphasis (1).** Prepares the prospective instrumental music instructor to effectively teach band instruments in the public school setting. Includes discussions of teaching techniques, identification of problems peculiar to each instrument, care and minor repair, instructional materials and the development of playing skills on at least two woodwind instruments. Students demonstrate proficiency on at least two woodwind instruments.

**MUSE 239. Wind & Percussion Methods II—Brass Emphasis (1).** Prepares the prospective instrumental music instructor to effectively teach band instruments in the public school setting. Includes discussions of teaching techniques, identification of problems peculiar to each instrument, care and minor repair, instructional materials and the development of playing skills on at least two brass instruments. Students demonstrate proficiency on at least two brass instruments.

**MUSE 240. Wind & Percussion Methods III—Percussion Emphasis (1).** Prepares the prospective instrumental music instructor to effectively teach band instruments in the public school setting. Includes discussions of teaching techniques, identification of problems peculiar to each instrument, care and minor repair, instructional materials and the development of playing skills on at least two percussion instruments. Students demonstrate proficiency on at least two percussion instruments.

**MUSE 241. String Rehearsal Methods (1).** Prepares the prospective instrumental music instructor to effectively teach band instruments in the public school setting. Includes discussions of teaching techniques, identification of problems peculiar to each instrument, care and minor repair, instructional materials and the development of playing skills on at least two string instruments. Students demonstrate proficiency on at least two string instruments.

**MUSE 242. Wind and Percussion Rehearsal Methods (1).** Wind and percussion techniques and materials for grades 4–12. Required of majors in choral/keyboard program and choral/keyboard majors in special music education program.

**MUSE 243. Wind & Percussion Methods Lab—Rehearsal Emphasis (1).** Provides experience in teaching and rehearsing the beginning/intermediate band and orchestra. Includes experiences in teaching and assessing new concepts and skills. Using peer teaching, students have opportunities to develop tone, technique, balance, blend and tuning, while rehearsing pieces from method books and concert music. Corequisite: MUSE 240.

**MUSE 271. Introduction to Music Education (2).** Demonstrate familiarity with the scope and program of K–12 music education. Articulate a current music education philosophy while developing leadership skills for a variety of music activities and teaching scenarios. Prerequisite: 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. Pre Student Teaching (1).** 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 323. Fundamentals of Vocal Music for Secondary Schools (2).** 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 308 and music education major or instructor's consent.

**MUSE 324. Fundamentals of Instrumental Music for Secondary Schools (2).** Covers techniques and materials for teaching instrumental music in middle schools and senior high schools. Emphasizes instrumental organization and administration, pedagogical practices, laboratory experiences, guiding student behavior, evaluation and professional responsibilities. Grades 6–12.

**MUSE 342. Survey of Choral Techniques and Literature (2).** Studies basic techniques of ensembles and examines literature for large and small ensembles. Includes song leading. Required for all music education majors. Grades 6–12. Prerequisite: MUSP 307 or 308.

**MUSE 351. 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 (1).** 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. Includes content area reading modules. Prerequisites: MUSE 303 and 323; also 309 for special music education majors.

**MUSE 451. Student Teaching in the Elementary School: Music (4–6).** Prerequisites: acceptance into teacher education, CI 328, CESP 433, methods in the subject area. Corequisites: CI 457 and student teaching seminar.

**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), Pre Student Teaching, CESP 433. Corequisite: student teaching seminar.

**MUSE 469. Student Teaching: Secondary Music (4–6).** Prerequisites: acceptance into teacher education, methods in the subject area, CI 312 and 328, CESP 433, 2.500 GPA in the major. Corequisites: CI 457 and student teaching seminar.

**MUSE 481. Cooperative Education (1–8).** See MUSE 281.

#### 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 dysfunctioning 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 617. 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. Students develop lessons and assessments appropriate for a comprehensive literacy-based music program based on national and state music standards representing appropriate and varied music education philosophies. Replaced both MUSE 317 and 790V. Prerequisite: MUSE 303 or 304, or instructor's consent.

**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 752. Music Workshop (1–2).** Repeatable for credit.

**MUSE 761. Kodály Methods Level One (3).** Kodály curriculum designed for grades K–1. Transcriptions of 50 folk songs with teaching activities appropriate

for young learners. Introduction of music literacy components. Replaced MUSE 751N. Concurrent enrollment with MUSE 762 recommended.

**MUSE 762. Kodály Solfege Level One (2).** Includes one- and two-part materials in major and minor tonalities. Demonstrated ability to conduct folk song literature appropriate for beginning singers. Replaced MUSE 751Q. Prerequisite: prior or concurrent enrollment in MUSE 761.

**MUSE 763. Kodály Methods Level Two (3).** Kodály curriculum designed for grades 2–4. Song analysis for 50 additional folk songs and appropriate literacy activities for general music programs. Added emphasis on folk dance and listening lessons for masterworks. Replaced MUSE 751O. Prerequisites: MUSE 761, 762 or instructor's consent. Concurrent enrollment with MUSE 764 recommended.

**MUSE 764. Kodály Solfege Level Two (2).** Adds chromatic, whole tone and modes. Demonstrated ability to conduct folk song literature up to four parts. Replaced MUSE 751T. Prerequisite: MUSE 762.

**MUSE 765. Kodály Methods Level Three (3).** Kodály curriculum designed for grades 4–12. Expansion of song repertoire with emphasis on activities which develop choral singing independence and music theory skills. Replaced MUSE 751Y. Prerequisites: MUSE 763, 764 or instructor's consent. Concurrent enrollment with MUSE 766 recommended.

**MUSE 766. Kodály Solfege Level Three (2).** Includes advanced materials from a variety of literature. Demonstrated ability to conduct expanded literature appropriate for public and private school choral programs. Replaced MUSE 751V. Prerequisites: MUSE 762, 764.

**MUSE 767. Kodály Applications (2).** Provides individually supervised research and application opportunities for the advanced student who has completed an OAKE endorsed Kodály certification program. Repeatable for credit. Prerequisites: MUSE 761, 762, 763, 764, 765, 766, or OAKE endorsed Kodály certification.

**MUSE 781. 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 with, and approved by, appropriate faculty sponsors and cooperative education coordinators. May be repeated for credit. Offered Cr/NCr only. Note: a maximum of 4 S/U or Cr/NCr hours may be counted toward a graduate degree and must be taken in consultation with the graduate adviser for an approved graduate plan of study. Prerequisite: satisfactory academic standing prior to the first job assignment.

**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 WSU Graduate Catalog for courses numbered 800 and above.

## Music Performance (MUSP)

### Applied Music—Private Study (MUSA)

#### Lower-Division Courses

**MUSA 112. Applied Music Instruction for Nonmajors (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 434. Applied Music Instruction (4).** For performance, pedagogy and accompanying 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 Nonmajors (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

|                    |                  |
|--------------------|------------------|
| A Bassoon          | P Piano          |
| B Cello            | Q Viola da Gamba |
| C Clarinet         | R String Bass    |
| D Euphonium        | S Trombone       |
| E Flute            | T Trumpet        |
| F French Horn      | U Tuba           |
| G Classical Guitar | V Viola          |
| J Guitar           | W Violin         |
| K Harp             | X Saxophone      |
| L Oboe             | Y Voice          |
| M Organ            | Z Electric Bass  |
| N Percussion       |                  |



## Applied Music—Class Instruction (MUSA)

### Lower-Division Courses

**MUSA 113P. Piano Class. Level 1 (1).** Nonpiano music majors. Class piano prepares the student to pass the piano proficiency exam. Required of all music majors. Repeatable for credit. Prerequisite: class placement interview.

**MUSA 114P. Piano Class. Level 2 (1).** Nonpiano music majors. Repeatable for credit. Prerequisite: class placement interview.

**MUSA 115P. Piano Class. Level 3 (1).** Nonpiano music majors. Repeatable for credit. Prerequisite: class placement interview.

**MUSA 116P. Piano Class. Level 4 (1).** Nonpiano music majors. Repeatable for credit. Prerequisite: class placement interview.

**MUSA 117P. Piano Class (1).** Nonpiano 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).** Nonpiano music majors. Prerequisite: class placement interview. Repeatable.

**MUSA 119P. Piano Class (1).** Piano majors. Prerequisite: class placement interview. Repeatable.

**MUSA 120P. Piano for Fun—Nonmajors (2).** Nonmajors. 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.

## Music Performance—General (MUSP)

### Lower-Division Courses

**MUSP 105. Recital Attendance (0).** 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 check sheet at the time of enrollment. Repeatable.

**MUSP 121. Italian Diction (1).** For the vocal performer. Includes a comprehensive study of Italian consonant and vowel sounds.

**MUSP 122. English Diction (1).** For the vocal performer. Includes 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 150. Music Performance Workshop (1–4).** Repeatable for credit.

**MUSP 207. Piano Repertoire (1).** Gives performing and listening experience to piano majors. Repeatable for credit.

**MUSP 210–211–212–213–214. Ensembles (0-1).** (A) Orchestra, (B) Symphonic Wind Ensemble or Concert Band, (D) Women's Glee Club, (E) Opera Lab, (F) A Cappella Choir, University Singers, Concert Chorale, (J) Piano Accompaniment, (K) Opera Theater, (L) Madrigal Singers, Chamber Singers, (M) Jazz Combo, (N) Woodwind Ensemble, (O) Saxophone Quartet, (P) Brass Chamber Ensemble, (R) Percussion Ensemble, (S) String Ensemble and String Chamber Ensemble, (T) Jazz Arts Ensembles I and II, (U) Music Theater Performance, (V) Guitar Ensemble, (W) International Choir, (X) New Music Ensemble. Repeatable for credit. Prerequisite: audition required.

**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 repertoire with orchestral accompaniment. Repeatable for credit. Prerequisite: audition required.

**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 repertoire with orchestral accompaniment. Repeatable for credit. Prerequisite: audition required.

**MUSP 221. German Diction (1).** For the vocal performer. Includes a comprehensive study of German consonant and vowel sounds.

**MUSP 222. French Diction (1).** For the vocal performer. Includes a comprehensive study of French consonant and vowel sounds.

**MUSP 223–224. Applied Piano Accompanying (2–2).** Individual private study of standard accompaniment literature. Prerequisites: successful completion of two semesters of piano study and sophomore standing.

**MUSP 250–251. Applied Piano Concerto (2–2).** Gives students concerto performance experience. Prerequisites: sophomore standing and admittance to the BM performance program.

**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/N/Cr only.

### Upper-Division Courses

**MUSP 300. Junior Recital (1).** Required for BM piano majors, performance or accompanying emphasis. Prerequisite: departmental consent.

**MUSP 307. Instrumental Conducting (2).** Fundamentals of baton technique, elementary score reading and musical leadership. Practical experience in conducting laboratory and classroom groups. Replaced MUSP 217. Prerequisites: MUSC 128, 130.

**MUSP 308. Choral Conducting (2).** Fundamentals of conducting, score reading and rehearsal techniques. Practical experience conducting classroom groups. Replaced MUSP 218. Prerequisites: MUSC 128, 130.

**MUSP 330. Musical Theatre Workshop I (2).** Cross-listed as THEA 330. An interdisciplinary practicum class with opportunities for student performers to refine rehearsal and performance skills necessary to musical theatre. Students prepare songs and scenes and staging from the musical theatre repertory culminating in a workshop performance. Admission is by audition.

**MUSP 340. Vocal Coaching (1).** Vocal coaching offers intense focus on diction and the dramatic, musical and stylistic interpretation of musical theatre, art song and opera literature. Prerequisites: upper-class or graduate-level majors only, and instructor's consent.

**MUSP 400. Senior Recital (1).** Prerequisite: departmental consent.

**MUSP 407. Piano Repertoire (1).** Gives performing and listening experience to piano majors. Repeatable for credit.

**MUSP 410–411–412–413–414. Ensembles (1).** See MUSP 210–211–212–213–214.

**MUSP 411E. Opera Lab (1).** See MUSP 211E.

**MUSP 411K. Opera Theatre (1).** See MUSP 211K.

**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 repertoire with orchestral accompaniment. Repeatable for credit. Prerequisite: audition required.

**MUSP 423–424. Applied Piano Accompanying (4–4).** Individual private study of standard accompaniment literature. Prerequisite: successful completion of solo recital.

**MUSP 450–451. Accompanying Recital (1–1).** Required for BM piano majors, accompanying emphasis. Prerequisite: departmental consent.

**MUSP 481. Cooperative Education (1–8).** See MUSP 281.

**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 operetta, 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 tutorial techniques for violin and viola, including the teaching of mini-lessons for instructor and class critique. Prerequisite: violin or viola performance capability or instructor's consent.

**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 307 or 308 or equivalent.

**MUSP 680. Woodwind Pedagogy (2).** A comprehensive study of woodwind instrument techniques, concepts and materials of studio instruction for the advanced student. Includes 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. Includes 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. Includes 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, ear training and types of choral composition for the advanced student. Prerequisite: MUSP 307 or 308 or equivalent.

**MUSP 707. Piano Repertoire (1).** Performing and listening experience for piano performance majors. Repeatable for credit.

**MUSP 710–711–712–713–714. Ensembles (0-1).** (A) Orchestra, (B) Symphonic Wind Ensemble or Concert Band, (D) Women's Glee Club, (E) Opera Lab, (F) A Cappella Choir, University Singers, Concert Chorale, (J) Piano Accompaniment, (K) Opera Theater, (L)

Madrigal Singers, Chamber Singers, (M) Jazz Combo, (N) Woodwind Ensemble, (O) Saxophone Quartet, (P) Brass Chamber Ensemble, (R) Percussion Ensemble, (S) String Ensemble and String Chamber Ensemble, (T) Jazz Arts Ensembles I and II, (U) Music Theater Performance, (V) Guitar Ensemble, (W) International Choir, (X) New Music Ensemble. Repeatable for credit. Prerequisite: audition required.

**MUSP 711E. Opera Lab (1).** See MUSP 211E.

**MUSP 711K. Opera Theatre (1).** See MUSP 211K.

**MUSP 712K. Opera Theatre (2).** See MUSP 212K.

**MUSP 714K. Opera Theatre (4).** See MUSP 414K.

**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 725. Voice Pedagogy II (2).** Builds on the basics explored in Voice Pedagogy, giving particular attention to a deeper understanding of voice science, vocal literature, pedagogical techniques and materials which prepare students to teach advanced and collegiate students. Prerequisite: MUSP 625 or instructor's consent.

**MUSP 750. Music Performance Workshop (1–4).** Repeatable for credit.

**MUSP 760. Group Piano Practicum (2).** Supervised group piano teaching for graduate students. Prerequisites: MUSP 580, 581.

**MUSP 761. Studio Piano Practicum (2).** Supervised studio teaching for graduate students. Prerequisites: MUSP 580, 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 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.

**MUSP 790Q. Special Topics in Music and Foreign Language (1–5).** Cross-listed as MCLL 790Q (College of Liberal Arts & Sciences). Allows undergraduate and graduate students to take courses in the modern foreign languages together with individualized instruction in the translation and diction of poetical texts set to music. Course may be used to satisfy the foreign language

requirement of the Bachelor of Music in performance—vocal emphasis. Repeatable for credit. Prerequisite: departmental consent.

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

**Musicology—Composition (MUSC)****Lower-Division Courses**

**MUSC 060. Fundamentals of Music (1).** Intended for those who do not read music and/or who need additional help in the fundamentals of music. Includes staff, clefs, keys, meter, tempo, notes, rests and other basic knowledge.

**>MUSC 113. Introduction to Music Literature (3).** *General education introductory course.* 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 1 (2).** Develops skills used in jazz improvisation, teaching memorization and group jazz styles.

**MUSC 121. Jazz Improv, Level 2 (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 melodic, rhythmic perception. Includes recognition and dictation of diatonic harmonic structures. Instruction assisted

by computer. Partially fulfills State Certification and Teacher Education Regulation gl-1-80: "the ability to teach reading skills appropriate to the level of the student and to the subject content." Prerequisite: MUSC 129.

>MUSC 160. **The Heritage of Western Music (3).** *General education introductory course.* Acquaints the nonmajor 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 introductory 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 3 (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 3 (2).** 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 4 (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 4 (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, 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).** *General education further study course.* Survey of the evolution of musical styles and practices in the Western world through 1750. Includes lectures, reference readings and studies representative examples of music. Prerequisites: MUSC 113, 227, or instructor's consent.

>MUSC 335. **History of Music II (3).** *General education further study course.* 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, 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, 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 nonmajors.

MUSC 348. **History of Jazz (3).** A chronological survey of the major styles and artists of jazz, from African influences to the present.

MUSC 390. **Special Topics in Music Theory and Musicology (1-3).** For individual or group instruction. Repeatable with department consent.

>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 560. **Applied Composition (2).** Individual study in advanced musical composition emphasizing writing for small ensembles in the smaller forms. For theory—composition majors. Repeatable. Prerequisites: MUSC 260 and consent of theory-composition area faculty and musicology-composition coordinator, to continue as a theory-composition major.

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 598. **Organ Literature (1).** Performance and discussion of works for the instrument of all periods; study of organ design and construction; 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 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 782-783. Piano Literature (3-3).** Survey of the historical eras of professional piano repertory.

**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 WSU Graduate Catalog for courses numbered 800 and above.

**School of Performing Arts**  
[finearts.wichita.edu/performing](http://finearts.wichita.edu/performing)  
 Linda Starkey, 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 performing arts/design and technical theatre, Bachelor of Fine Arts (BFA) in performing arts/musical theatre, Bachelor of Fine Arts (BFA) in performing arts/theatre performance, and a Bachelor of Arts (BA) in performing arts.

All candidates for the BFA and BA degrees must complete 45+ hours of upper-division courses.

**Degree Programs**

**Bachelor of Arts in Performing Arts**

General requirements: total hours for graduation 120 hours minimum, overall GPA 2.000, 2.500 in major; must complete 42 hours of general education and must have 45 hours of upper division credits.

|  |    |
|--|----|
| <i>Performing Arts Core curriculum</i> .....               | 9  |
| THEA 243 Acting I  |    |
| Movement class (stage movement, dance)                     |    |
| Technical theatre class (costuming, stagecraft, lighting)  |    |
| Non-English language or minor from outside department..... | 15 |
| <i>General Education</i> .....                             | 42 |

|   |    |
|---|----|
| <i>Dance concentration, additional requirements</i> |    |
| DANC 201, 301, 401, 501.....                        | 12 |
| DANC 210, 310, 410, 510.....                        | 12 |
| DANC 235, 335, 435, 535.....                        | 12 |
| DANC 225, 325, 415, 580, 690.....                   | 9  |
| Electives* .....                                    | 9  |

|   |          |
|---|----------|
| <i>Music Theatre concentration, additional requirements</i> |          |
| THEA 180, 254, 260, 342, 330, 530, 555, 610.....            | 17       |
| DANC 210, 230, 235, 240.....                                | 12       |
| MUSA 232Y.....  | 4 smstr. |
| MUSA 113P.....  | 1 smstr. |
| MUSA 432Y.....  | 2 smstr. |
| MUSP 212.....   | 2 smstr. |
| Electives* .....  | 10       |

|   |    |
|---|----|
| <i>Theatre concentration, additional requirements</i>   |    |
| THEA 143, 180A, 180B, 180C, 244, 253, 254, 272, 342, 345, 359, 375, 450, 623, 624, 728, advanced technical class..... | 39 |
| Electives* .....  | 15 |

\*Based on plan of study, with adviser approval

**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 3 technique in modern dance, ballet and jazz, and two semesters of level 4 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, it should not 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 in the professional arena.

**Bachelor of Fine Arts in Performing Arts-Dance**

General requirements: total hours for graduation 124 minimum, overall GPA 2.000 (2.500 in major); must complete 42 hours of general education and must have 45 hours of upper-division credits.

Requirements 82 hours minimum, including:

|  |         |
|--|---------|
| <i>Core curriculum courses</i> .....                           | 9 hrs.  |
| THEA 243 Acting I  |         |
| Movement or dance class  |         |
| Technical theatre class (costuming, stagecraft, lighting)..... | 12 hrs. |
| <i>Modern dance technique*</i> .....                           | 12 hrs. |
| DANC 201 Modern Dance 1  |         |
| DANC 301 Modern Dance 2  |         |
| DANC 401 Modern Dance 3  |         |
| <i>Ballet technique*</i> .....                                 | 15 hrs. |
| DANC 210 Ballet 1  |         |
| DANC 310 Ballet 2  |         |
| DANC 410 Ballet 3  |         |
| <i>Jazz technique*</i> .....                                   | 15 hrs. |
| DANC 235 Jazz 1  |         |
| DANC 335 Jazz 2  |         |
| DANC 435 Jazz 3  |         |
| <i>Plus 6 hrs. in one of the following disciplines.....</i>    | 6 hrs.  |
| DANC 501 Modern Dance 4  |         |
| DANC 510 Ballet 4  |         |
| DANC 535 Jazz Dance 4  |         |
| <i>Plus all of the following courses.....</i>                  | 22 hrs. |
| DANC 225 Dance History: Ancient Civilization to Early 1900s    |         |
| DANC 325 Dance History: 20th & 21st Centuries                  |         |
| DANC 305 Choreography 1  |         |
| DANC 315 Music for Dance                                       |         |
| DANC 405 Choreography 2  |         |

DANC 415 Dance Kinesiology  
 DANC 505 Choreography 3  
 DANC 580 Senior Project

*Performance (course may be repeated).....3 hrs.*

DANC 320 Dance Performance

*Recommended electives:*

THEA 143 Art of the Theatre  
 THEA 218 Stage Movement  
 THEA 244 Stagecraft  
 THEA 253 Costuming for Stage/Film  
 THEA 254 Stage Makeup  
 THEA 345 Stage Lighting  
 DANC 240 Tap 1  
 DANC 340 Tap 2  
 DANC 227 Mime/Physical Theatre 1  
 DANC 230 Musical Theatre Dance 1  
 DANC 330 Musical Theatre Dance 2  
 DANC 545 Methods of Teaching Dance

*\*Placement and advancement by audition and/or faculty consent only*

### Dance Minor

A minor in dance consists of the following:

*Basic Dance Technique.....9 hrs.*

9 hours dance technique (3 each discipline)  
 DANC 201 or 301 Modern 1 or 2  
 DANC 210 or 310 Ballet 1 or 2  
 DANC 235 or 335 Jazz 1 or 2

*Dance Technique (further study) .....6 hrs.*

6 hours in two disciplines  
 DANC 301 or 401 Modern 2 or 3  
 DANC 310 or 410 Ballet 2 or 3  
 DANC 335 or 435 Jazz 2 or 3

*Dance History .....3 hrs.*

DANC 225 Dance History Ancient  
 Civilization to Early 1900s  
 DANC 325 Dance History: 20th & 21st  
 Centuries

*Elective .....3 hrs.*

At least 3 hrs. from the following electives:  
 DANC 130A, 130B, 130V, 140, 225, 227  
 230, 315, 320, 340, 415

### Lower-Division Courses

>DANC 140. **Art of the Dance (3).** *General education introductory course.* An exploration overview of American dance between 1890 and 1990. Emphasizes lecture, discussion, reading materials, dance videos and films. Very little physical application in the dance studio. Open to everyone. Not counted toward a dance major.

DANC 150. **Dance Workshop (1-4).** Repeatable for credit.

DANC 201. **Modern Dance Technique 1 (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 1 (3).** Introduces basic technique, positions, basic steps, proper body alignment, classroom structure, 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 1 (3).** An introductory course in crafting nonverbal 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 nonverbally. Enhances both acting and dancing skills.

DANC 230. **Musical Theatre Dance 1 (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 1 (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 1 (3).** Introduces the principles of tap dance including rhythm, clarity of sound, syncopation and weight shift.

### Upper-Division Courses

DANC 301. **Modern Dance 2 (3).** Continuation of DANC 201 emphasizing movement phrases. Intermediate level. Repeatable for credit. Prerequisite: instructor's consent or by audition.

DANC 305. **Choreography 1 (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 2 (3).** Continuation of DANC 210. Intermediate level. Repeatable for credit. Prerequisite: instructor's consent or by audition.

DANC 315. **Music for Dance (3).** Study of tempo, meter and quality of sound as applied to movement. Exploration of appropriate music repertoire for dance. Study of musical form and style periods and applications to performance and choreography.

DANC 320. **Dance Performance (1).** Cross-listed as THEA 180E, 380E. 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 2 (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 2 (3).** Continuation of DANC 235 at intermediate level. Repeatable for credit. Prerequisite: instructor's consent or by audition.

DANC 340. **Tap 2 (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 3 (3).** Continuation of DANC 301. Upper-intermediate level. Repeatable for credit. Prerequisite: instructor's consent or by audition.

DANC 405. **Choreography 2 (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 3 (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 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 3 (3).** Continuation of DANC 335 at a higher level of technical skill. Includes advanced kinetic memory, flexibility, isolation, sophisticated syncopation and reflex. Repeatable for credit. Prerequisites: DANC 235, 335 and/or instructor's consent.

### Courses for Graduate/Undergraduate Credit

DANC 501. **Modern Dance 4 (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 3 (3).** Focuses on the choreographic process. Students create choreographic studies for more than one dancer using elements studied in Choreography 1 and 2 and exploring different choreographic approaches. Further exploration may include environmental, chance and collaborative choreographies and multimedia approaches. Prerequisites: DANC 405. Corequisite: appropriate level modern dance or ballet technique class.

**DANC 510. Ballet 4 (3).** Continuation of DANC 410. Advanced level. Emphasizes professional technique and performance quality. Repeatable for credit. Prerequisite: instructor's consent or by audition.

**DANC 535. Jazz Dance 4 (3).** Advanced level. Continuation of DANC 435. 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 605. Choreography for the Musical Theatre (3).** Introduces the process of choreography for the musical theatre from casting the chorus in a musical to staging a solo to choreographing an ensemble of 30 dancer/ singers. Includes interpreting the score and script for dance, staging nondancers, and other projects to develop the craft of choreography for the musical stage. Prerequisite: 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.

## Music Theatre

### Bachelor of Fine Arts in Performing Arts—Music 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. Admittance into the program is by competitive auditions held twice a year. 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.

#### Degree requirements:

General requirements: total hours for graduation 124 minimum, overall GPA 2.000, 2.500 in major (3.000 for scholarship consideration); must complete 42 hours of general education and must have 45 hours of upper-division credits.

Requirements 82 hours including:

*Core curriculum courses* .....9 hrs.

- THEA 243 Acting I
- Movement or dance class
- Technical theatre class (costuming, stagecraft, lighting)

*Theatre Requirements* .....14 hrs.

- THEA 260 History of Musical Theatre
- THEA 254 Stage Makeup
- THEA 342 Advanced Acting

- THEA 643 Styles in Acting
  - THEA 610 Directing the Musical
- Choose one from the following:*  
(included in the core curriculum)
- THEA 244 Stagecraft
  - THEA 253 Costuming for the Stage/Film
  - THEA 345 Stage Lighting
  - THEA 272 Stage Management
- Dance Requirements* .....24 hrs.  
(included in the core curriculum)
- DANC 235 Jazz 1
  - DANC 335 Jazz 2
  - DANC 240 Tap 1
  - DANC 340 Tap 2
  - DANC 201 Modern Dance 1
  - DANC 210 Ballet 1
  - DANC 310 Ballet 2
  - DANC 230 Musical Theatre Dance 1
  - DANC 330 Musical Theatre Dance 2

*Music Requirements* .....26 hrs.

- MUSC 127 Theory I
- MUSC 128 Theory II
- MUSA 232Y Voice (four semesters)
- MUSA 432Y Voice (two semesters)
- MUSC 129 Aural Skills I
- MUSC 130 Aural Skills II
- MUSA 113P Piano Level 1
- MUSA 114P Piano Level 2
- MUSP 340 Vocal Coaching (two semesters)
- MUSP 212F Choir (two semesters)

*Interdisciplinary Requirements* .....9 hrs.

- THEA 630 Musical Theatre & Opera Audition
- THEA 180E Musical Theatre Performance (freshman seminar)
- THEA 330 Musical Theatre Lab
- THEA 530 Musical Theatre Scene Study
- THEA 555 Senior Project

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 24.

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. Students receiving scholarships are required to perform as cast. All majors must obtain departmental 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.

## Theatre (THEA)

Theatre offers a broad academic program, balanced by the extensive production schedule of the university theatre—Main Stage and Second Stage.

### 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/design and technical theatre, a BFA in performing arts/theatre performance, and a BA in performing arts. 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.

### Bachelor of Fine Arts in Performing Arts—Design and Technical Theatre

General requirements: total hours for graduation 124 minimum, overall GPA 2.000, 2.500 in major; must complete 42 hours of general education and must have 45 hours of upper division credits.

*Core curriculum courses* .....9 hrs.

- THEA 243 Acting I
- Movement class (stage movement, dance)
- Technical theatre class (costuming, stagecraft, lighting)

*Requirements for Major* .....35 hrs.  
(in addition to one course that applies to the 9-hour core)

- THEA 143 The Art of the Theatre
- THEA 180A Practicum: Stagecraft
- THEA 180B Practicum: Costume
- THEA 180C Practicum: Management
- THEA 244 Stagecraft
- THEA 253 Costuming for the Stage and Film
- THEA 254 Stage Makeup
- THEA 272 Stage Management
- THEA 345 Stage Lighting
- THEA 359 Directing I
- THEA 380A Practicum: Stagecraft
- THEA 380B Practicum: Costume
- THEA 380C Practicum: Management
- THEA 450 Contemporary Theatre and Drama
- THEA 623 Theatre History I
- THEA 624 Theatre History II
- THEA 728 Playscript Analysis

*Additional requirements for design/technical option* .....28 hrs.  
 THEA 300 Drafting for Theatre  
 THEA 344 Scene Design I  
 THEA 451 Portfolio Review  
 THEA 544 Advanced Stagecraft  
 THEA 546 Scene Painting  
 THEA 647 Scene Design II  
 THEA 649 Stage Lighting II & Theatre Sound  
 THEA 653 History of Costume  
 THEA 657 Costume Design I  
 ARTF 145 Foundation Drawing  
 THEA 375 Directed Projects in Theatre  
 THEA 675 Directed Study

*Electives from the following:* .....10 hrs.  
 ARTH 121 Survey of Art History I  
 ARTH 122 Survey of Art History II  
 THEA 180D Practicum: Performance  
 THEA 221 Oral Interpretation  
 THEA 222 Improving Voice and Diction  
 THEA 241 Improvisation and Theatre Games  
 THEA 326 Expressive Voice for Stage  
 THEA 331 Dialects for the Stage  
 THEA 380D Practicum: Performance  
 THEA 510 Design Project  
 THEA 516 Playwriting I  
 THEA 517 Playwriting II  
 THEA 559 Directing II  
 THEA 590 Special Topics  
 THEA 610 Directing the Musical  
 THEA 643 Styles in Acting  
 THEA 651 Scene Study  
 Or any upper-division theatre elective

### Bachelor of Fine Arts in Performing Arts—Theatre Performance

General requirements: total hours for graduation 124 minimum, overall GPA 2.000, 2.500 in major; must complete 42 hours of general education and must have 45 hours of upper division credits.

*Core curriculum courses* .....9 hrs.  
 THEA 243 Acting I  
 Movement class (stage movement, dance)  
 Technical theatre class (costuming, stagecraft, lighting)

*Requirements for Major* .....35 hrs.  
 (in addition to one course that applies to the 9-hour core)  
 THEA 143 The Art of the Theatre  
 THEA 180A Practicum: Stagecraft  
 THEA 180B Practicum: Costume  
 THEA 180C Practicum: Management  
 THEA 244 Stagecraft  
 THEA 253 Costuming for the Stage and Film  
 THEA 254 Stage Makeup  
 THEA 272 Stage Management  
 THEA 345 Stage Lighting  
 THEA 359 Directing I  
 THEA 380A Practicum: Stagecraft  
 THEA 380B Practicum: Costume  
 THEA 380C Practicum: Management  
 THEA 450 Contemporary Theatre and Drama  
 THEA 623 Theatre History I  
 THEA 624 Theatre History II  
 THEA 728 Playscript Analysis

*Additional requirements for performance option* 27 hrs.  
 THEA 180D Practicum: Performance  
 THEA 221 Oral Interpretation  
 THEA 222 Improving Voice and Diction  
 THEA 241 Improvisation and Theatre Games  
 THEA 326 Expressive Voice for Stage  
 THEA 331 Dialects for the Stage  
 THEA 342 Advanced Acting  
 THEA 380D Practicum: Performance  
 THEA 455 Senior Jury  
 THEA 643 Styles in Acting  
 THEA 651 Scene Study

*Electives from the following:* .....11 hrs.  
 THEA 365 Stage Combat  
 THEA 385 Theatre as Mirror of Today's America  
 THEA 516 Playwriting I  
 THEA 517 Playwriting II  
 THEA 559 Directing II  
 THEA 590 Special Topics  
 THEA 675 Directed Study  
 FA 301 Intro to Entrepreneurship in the Arts

Or any upper-division theatre elective

### 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, THEA 380E. An interdisciplinary practicum class for students cast in a musical theatre production. Admission is by audition. Students gain rehearsal and performance experience in a Main Stage 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, talk-backs with artists and critical evaluations, students gain valuable first-hand knowledge of the various genres of performance. In addition to WSU's theatre, dance and musical theatre productions, students gain historic perspectives during discussions and lectures from artists working in the field.

THEA 218. **Stage Movement (3).** Fundamental movement course for the student performer. Emphasis is on developing within the actor an understanding of his/her body as an instrument of expression and communication, and enhancing the actor's ability to use his/her physical instrument. Encompasses exercises and explorations based on a variety of techniques for developing body and spatial awareness and use.

>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 (3).** **Lab arr.** Study in making, painting and using scenery for the stage. Practical work on university Main Stage and Second Stage productions. Includes a two-hour lab.

THEA 253. **Costuming for the Stage and Film (3).** **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 or in a film. Includes approaches to rendering the costume design, basic pattern-making, fabric selection and dyeing. Practical experience with university theatre Main Stage 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, ARTF 145.

THEA 326. **Expressive Voice for Stage (3).** Develops the individual's ability to express thought and emotion on the stage through the effective use of the voice. Uses exercises, drills, and poetic and dramatic readings to improve the quality, flexibility and effectiveness of the speaking voice. Prerequisite: THEA/COMM 222.

**THEA 330. Musical Theatre Laboratory (2).** Cross-listed as MUSP 330. An interdisciplinary course with opportunities for student performers to refine techniques by performing scenes from a variety of musical genres including operetta, 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 permission of the instructors.

**THEA 331. Dialects for the Stage (3).** Familiarizes the student with certain regional American and foreign dialects. Intended to be a practical guide for the student actor who is called upon to reproduce a particular dialect for performance. Prerequisite: THEA/ COMM 222.

**THEA 342. Advanced Acting (3).** Continued development of methods established in THEA 243 with additional emphasis on contemporary vocal and movement techniques. Prerequisites: THEA 243 and sophomore standing.

**THEA 344. Scene Design I (3).** Fundamentals of scene design. Emphasizes strong work in perspective rendering, drafting techniques and scale, and playscript and spatial analysis.

**THEA 345. Stage Lighting (3). 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 Main Stage and Second Stage productions.

**THEA 359. Directing I (3). Lab. 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 365. Stage Combat (3).** Foundation course in the art of theatrical violence. Emphasis is placed on safety, learning the skills and techniques of unarmed stage combat including partnering skills, safe execution of slaps, punches, falls and developing an understanding of the dramatic structure of a stage fight. Prerequisites: sophomore standing, one prior movement class (Modern 1, Jazz 1, Stage Movement or Mime).

**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 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.

**THEA 380E. Musical Theatre Performance (1).** Cross-listed as DANC 320, THEA 180E. 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, concerns and similarities. Focuses on issues arising because of diversity of culture, nationalities, race, gender, ethnicity, class, age, religion and politics.

**>THEA 450. Contemporary Theatre and Drama: Topics (3).** *General education further study course.* Investigates the major developments and directions in theatre and drama since 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 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, 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, pre student 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 student designs for specific productions for either Main Stage or Experimental Theatre. Repeatable twice for credit if taken in different design areas. Prerequisite: instructor's consent.

**>THEA 516 & >THEA 517. Playwriting I and II (3 & 3).** *General education further study courses.* Cross-listed as ENGL 517 and 518. The writing of scripts for performance. Emphasizes both verbal and visual aspects of playwriting. If possible, the scripts are given in-class readings by actors. Prerequisite: instructor's consent.

**THEA 530. Musical Theatre Scene Study (2).** An interdisciplinary practicum course with opportunities for student performers to refine interdisciplinary techniques by performing scenes from a variety of musical theatre genres including operetta, book musicals and rock musicals. Advanced students may explore opportunities to gain experience in directing and choreographing under faculty guidance and supervision. Prerequisites: junior or senior musical theatre, dance or voice majors only; and/or permission of the instructors.

**THEA 544. Advanced Stagecraft (3). Lab. arr.** Explores advanced construction techniques for the fabrication of stage scenery and stage properties. Such operations

may include welding, vacuum forming, carpentry and working with a variety of new materials. Students complete a research project and presentation/demonstration of research findings. Independent projects relating to materials and techniques studied are pursued in arranged labs. Prerequisite: THEA 244.

**THEA 546. Scene Painting (3).** Presented with a lecture demonstration-studio arrangement. Explores various theatre painting materials and techniques enabling the student to develop skill as a scenic artist. Prerequisite: THEA 244.

**THEA 555. Senior Project (1).** Cross-listed as MUSP 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.

**THEA 559. Directing II (3). Lab. arr.** Staging and rehearsal techniques emphasizing the problems of the period and stylized play. Prerequisites: THEA 359 or departmental consent and junior standing.

**THEA 590. Theatre: Special Topics (1-3).** Designed to expand and strengthen the experience of the student academically and professionally. Study of developments in theatre that go beyond, or are related to, courses already offered gives students a much richer preparation for their field of study. Topics include new technology, new materials, contemporary explorations in performance, and in-depth study of production methods.

**THEA 610. Directing the Musical (3).** An interdisciplinary course using interdepartmental expertise (theatre, dance, music) to teach the student how to produce a musical. Prerequisite: instructor's consent.

**THEA 622. Academic Theatre Practicum (2).** The investigation and exploration of the theatrical act in the classroom situation within the university community. Reinforces researching, writing, directing and performing skills. Enrolled students, functioning as a company, produce and perform for various disciplines on campus. Repeatable once for credit.

**>THEA 623. Theatre History I (3).** *General education further study course.* The history of theatrical activity as a social institution and an art form from its beginnings to the 17th century. Includes representative plays, methods of staging and theatrical architecture of various periods.

**>THEA 624. Theatre History II (3).** *General education further study course.* History of theatrical activity as a social institution and an art form from the 17th century to the present. Includes representative plays, methods of staging and theatrical architecture of various periods.

**THEA 630. Musical Theatre & Opera Audition (3).** Cross-listed as MUSP 790E. A practicum course which develops techniques and audition repertory singers 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.

**THEA 643. Styles in Acting (3).** Training in, and development of, the special techniques required for period or stylized plays with special emphasis on Greek, Shakespearean and Restoration styles. Prerequisites: THEA 243, 342, junior standing.

**THEA 647. Scene Design II (3).** Continuation of THEA 344 with more advanced work in designing settings



for the stage and including studies in scenographic techniques and exercises in model building. Students design settings for a production having a single set, a production requiring a simultaneous setting and a production using multiple settings. Requires no laboratory work in theatre production. Prerequisites: THEA 244, 344.

**THEA 649. Stage Lighting II and Theatre Sound (3).** Continues the study and application of the theories and techniques of THEA 345, emphasizing advanced concepts of design, and provides an introduction to theatre sound production. Prerequisite: THEA 345.

**THEA 651. Scene Study (3).** The synthesis of all previous acting courses. Studies scenes in depth as preparation for performance. Course goal is the presentation of fully realized characterizations in those scenes studied, integrating the elements of the actor's craft learned in the prerequisite courses. Prerequisites: THEA 643 and junior standing.

**THEA 653. History of Costume (3). Lab. arr.** Historical survey and individual research of dress from ancient Egypt to present day emphasizing social, political, economic and religious influences. Theory and practice of adapting period styles to the stage. Prerequisite: THEA 253 or departmental consent.

**THEA 657. Costume Design I (3).** Covers the techniques of costume design for the stage. Students strengthen and expand their knowledge of techniques in costume design for the stage, film and television. Prerequisites: ARTF 145, THEA 253.

**THEA 675. Directed Study (2-4).** Cross-listed as COMM 675. Individual study or projects. Repeatable for credit with departmental consent. Prerequisite: departmental consent.

**THEA 728. Playscript Analysis (3).** Develops students' abilities to analyze playscripts from the point of view of those who face the task of staging them. Focuses on studying and testing practical methods of analysis developed by outstanding theatre directors, teachers and

critics. Collective analysis and individual projects are part of the coursework. Prerequisite: THEA 623 or 624.

**THEA 780. Theatre Internship (3-15).** Advanced theatre production work as arranged by students in directing, acting, scenery and lighting; costume design and construction, or theatre management with a professional theatre company. Work is evaluated by graduate faculty. Total of internship activity applicable toward graduation is 15 hours. Prerequisite: junior standing or departmental consent.

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

The following abbreviations are used in the course descriptions; R stands for lecture and L for laboratory. For example, 4R; 2L means 4 hours of lecture and 2 hours of lab. Arr. means arranged time.



# College of Health Professions

**Peter A. Cohen, dean**  
400 Ahlberg Hall • (316) WSU-3600  
[wichita.edu/chp](http://wichita.edu/chp)

**Stephen Arnold, associate dean**  
**Mary Koehn, associate dean**

The College of Health Professions was established in 1970. Programs of study are offered in advanced education in general dentistry, communication sciences and disorders, dental hygiene, health services management and community development, medical laboratory sciences, 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.

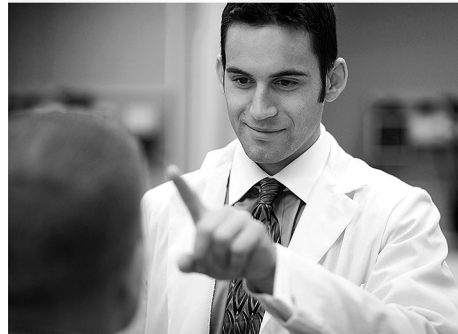
Programs in the college are accredited through the following agencies: the Council on Academic Accreditation of Audiology and Speech-Language Pathology of the American Speech-Language-Hearing Association, the Commission on Dental Accreditation of the American Dental Association, the Commission on Accreditation 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.

## Licensing

Many state and national licensing and governing organizations will not grant a license, certification, registration or other similar document to practice one's chosen profession if one has been convicted of a felony, and in some cases a misdemeanor. Prospective applicants are encouraged to consult with their chosen professional governing or licensing organization for more detailed information before applying.

## 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



*Courtesy Photos*

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 the disability, and the disability has been documented by appropriate professionals.

## Degrees and Certificates Offered

### Undergraduate

Of the programs offered at the undergraduate level, six lead to bachelor's degrees—communication sciences and disorders, dental hygiene, health sciences, health services management and community development, medical laboratory sciences, and nursing.

### Graduate

Three programs lead to the master's degree—aging studies, communication sciences and disorders, and physician assistant. Four programs lead to the doctoral degree—audiology, communication sciences and disorders, nursing and physical therapy. Admission to all of these programs requires a bachelor's degree and the fulfillment of additional requirements.

*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.

A *master's program (MA) in aging studies* is offered in the department of public health sciences. The program provides a basic foundation of knowledge, education and skills to prepare graduates to move into positions of health services geared toward the growing population of senior consumers. The program is designed for students with minimal previous training in aging studies.

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 pre-professional 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 pre-professional major, students can typically complete the program in three 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: postbaccalaureate or postmaster's. Postbaccalaureate graduates are eligible to apply for state Advanced Registered Nursing Practitioner (ARNP) status and the appropriate national certification examination in their specialization. Postmaster'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.

The *postdoctoral certificate in advanced education in general dentistry* is also offered through the College of Health Professions.

More information on graduate programs is available in the WSU Graduate Catalog.

## Certificates

The College of Health Professions offers the following certificates: educational interpreter development certificate program: signing exact English\*; graduate certificate in public health; postmaster'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 CSD for current program status.

\*\*Contact the School of Nursing graduate program for latest information.

## Inter-College Double Major

An inter-college double major allows a student to complete an academic degree and major in one of the professional colleges (Barton School of Business, College of Education, College of Engineering, College of Fine Arts, College of Health Professions) along with a major in the College of Liberal Arts and Sciences. For details see page 28.

## Policies

### Undergraduate Admission

Degree-bound students who select a health professions major are admitted to the College of Health Professions as preprofession 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, aging studies, and dental hygiene, the required GPA is 2.750; for the baccalaureate in medical laboratory sciences the required GPA is 2.500; and for the baccalaureate in health services management and community development, and health sciences, 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:** Pre-professional majors in health services management and community development, and health services must maintain an overall cumulative and WSU grade point average of at least 2.250. Pre-professional majors in medical laboratory sciences and communication sciences and disorders must maintain an overall cumulative and WSU grade point average of at least 2.500; pre-professional majors in dental hygiene and nursing must maintain a grade point average of at least 2.750; pre-professional 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 sciences or 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 laboratory sciences, 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. For prenursing students, advising is coordinated through the School of Nursing Advising Office in 541 Ahlberg Hall. Please call (316) 978-5708 to schedule an appointment. For all School of Health Sciences preprofessional students and School of Oral Health students, advising is coordinated through CHP Advising Student Services in 402 Ahlberg Hall. Please call (316) 978-3304 to schedule an appointment. Once students are admitted into their degree program, academic advising is provided by the program faculty.

### 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 laboratory sciences, 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 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 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 laboratory sciences, 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 averages 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. Exceptions 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 nonmajors 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 health services management and community development, the Bachelor of Science in Health Science, and the Bachelor of Science—medical laboratory sciences.

The School of Health Sciences offers the Master of Arts in communication sciences and disorders, Master of Arts in aging studies, 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)

### Lower-Division Courses

**>HS 290. Foundational Human Anatomy and Physiology (5).** *General education introductory course.* Designed to give students a foundational understanding of the anatomy and physiology of the human body. Emphasizes the basic anatomy of each body system and develops an understanding of normal human physiologic processes of each system. Students are challenged to begin thinking clinically so as to prepare them for a future in health professions. In correlation with lectures, lab sessions are required weekly to provide a hands-on understanding of the content. Students may receive credit for only one of the following: HS 290 or BIOL 223.

### 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 a 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. Prerequisite: BIOL 223, or 534, or HS 290.

### Courses for Graduate/Undergraduate Credit

**HS 570. Neuroscience for Health Professionals: Peripheral Nervous System (1).** First in a series of four courses developed for students preparing for health professions programs in a variety of settings (e.g., nursing, physician assistant, physical therapy, medical degrees), or advanced degrees in the sciences (e.g., biology, exercise science, biochemistry) who have a desire to expand their background in neuroscience before entering these fields. Replaced HP 570B. Prerequisite: instructor's consent.

**HS 571. Neuroscience for Health Professionals: Ascending and Descending Pathways (1).** Second in a series of four courses developed for students preparing for health professions programs in a variety of settings (e.g., nursing, physician assistant, physical therapy, medical degrees), or advanced degrees in the sciences (e.g., biology, exercise science, biochemistry) who have a desire to expand their background in neuroscience before entering these fields. Replaced HP 570C. Prerequisite: HS 570 or instructor's consent.

**HS 572. Neuroscience for Health Professionals: Brainstem and Cerebellum (1).** Third in a series of four courses developed for students preparing for health professions programs in a variety of settings (e.g., nursing, physician assistant, physical therapy, medical degrees), or advanced degrees in the sciences (e.g., biology, exercise science, biochemistry) who have a desire to expand their background in neuroscience before entering these fields. Replaced HP 570D. Prerequisites: HS 570, 571.

**HS 573. Neuroscience for Health Professionals: Forebrain (1).** Fourth in a series of four courses developed for students preparing for health professions programs in a variety of settings (e.g., nursing, physician assistant, physical therapy, medical degrees), or advanced degrees in the sciences (e.g., biology, exercise science, biochemistry) who have a desire to expand their background in neuroscience before entering these fields. Replaced HP 570E. Prerequisites: HS 570, 571, 572.

**HS 600. Advanced Clinical Anatomy (5).** Structured to present the human body using a regional approach. Emphasis on learning gross anatomy with a clinical mindset. In addition to lectures, the students use projected cadavers, skeletal specimens, radiographic films and anatomical models. Designed for those students who desire to pursue a degree within health professions and who would like to deepen their knowledge of human anatomy and its application to clinical scenarios. Prerequisite: BIOL 223 or HS 290.

**HS 631. Normal and Clinical Nutrition (4).** Studies human nutritional needs in normal development and the life cycle. 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, parenteral and enteral nutrition, and surgical conditions. Studies nutritional assessment, data interpretation, care planning, record keeping and client communications. Prerequisites: general chemistry, anatomy and physiology.

**HS 700. Gross Anatomy (6).** 3R; 9L. Study of the structure of the human body emphasizing integration of anatomical information with human functional abilities. Prerequisites: four semesters of biological sciences and instructor's consent.

**HS 710. Applied Clinical Pharmacology (3).** Discusses clinical applications of selected drug classes commonly prescribed in the primary care setting as well as the follow-up management of common chronic diseases. Discusses pharmacological managements 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. Prerequisites: 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.

## Health Professions—General (HP)

### Lower-Division Courses

**HP 101. An Introduction to the University** is being replaced on a trial basis by the following class:

**WSUH 101. Introduction to the University (3).** Designed especially for first-year students in their first semester at WSU, this course prepares students to succeed in college. Helps students form connections with each other, with faculty, with campus services and with the institution as a whole. It assists students in developing intellectually, emotionally and socially. It provides information and training about: college expectations, academic majors, careers and life planning; study skills and test taking, teaching and learning styles, respecting diversity of thought and culture, critical thinking, leadership, university policies and procedures, managing time and money, health and wellness, and the benefits of engagement in student organizations. Encourages and supports students as they adjust to college life and promotes reflective learning. In addition to other course projects, students create an individualized graduation plan through a collaborative process that involves academic advisers, the course instructor and peer mentors assigned to the course. Students who successfully complete this course have greater academic success and an improved rate of graduation compared to students who do not take this class.

**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 *Cr/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.

**>HP 330. Cancer: Perspectives and Controversies (3).** *General education issues and perspectives course.* Historical and contemporary information regarding trends, distribution and causes of cancer. Discusses pertinent issues and controversies about cancer from the perspectives of cancer prevention and treatment, economics, sociology, psychology and politics. Prerequisite: BIOL 104, 106 or 223.

### Courses for Graduate/Undergraduate Credit

**HP 570. Selected Topics (1–4).** Lecture/discussion; focuses on a discrete area content relevant to the health disciplines. In-depth study of a particular topic or concept, including didactic and current research findings and technological advances relevant to the topic. Repeatable to a maximum of 6 credit hours with program consent, upper-division status.

**HP 750. Workshop in Health Professions (1–4).** An opportunity for intensive study of special topics related to health profession practice, education or research.

## 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 Evelyn Hendren Cassat Speech-Language-Hearing Clinic (telephone: (316) 978-3289, email: slhclinic@wichita.edu). Fees are charged for these services.

## Minimum Grade Requirement

Admission to courses is possible with a minimum grade of C (2,000 points per credit hour) in each stated prerequisite or its judged equivalent, or with departmental consent, unless otherwise specified in the course description.

## Undergraduate Major

The preprofessional, undergraduate major places primary emphasis on the general area of communication sciences and disorders. The major, consisting of 52–53 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 who intend to pursue a graduate degree in this field (MA or AuD) 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; November 1st for spring semester admission.

Admission requirements include:

1. An overall GPA of 2.750; and
2. The completion of the following courses with a grade that generates at least 3,000 credit points per credit hour in each course: CSD 111, 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.

### Curriculum:

| Course   | .....hrs.                                |
|----------|--|
| CSD 111  | Disorders of Human Communication.....3   |
| CSD 210  | Physics of Sound <i>or</i>               |
| PHYS 210 | Physics of Sound.....3                   |
| CSD 251  | Auditory Development and Disorders.....2 |
| CSD 260  | Signing Exact English I <i>or</i> .....2 |
| CSD 270  | American Sign Language I.....3           |

|              |  |              |
|--------------|--|--------------|
| CSD 301      | Basic Anatomy and Physiology of the Speech Mechanism ..... | 2            |
| CSD 302      | Basic Anatomy and Physiology of the Auditory System.....   | 2            |
| CSD 304      | Early Language Development.....                            | 3            |
| CSD 304L     | Early Language Devel. Lab .....                            | 0            |
| CSD 306      | Applied Phonetics .....                                    | 3            |
| CSD 306L     | Applied Phonetics Lab .....                                | 0            |
| CSD 351      | Intro to Auditory Assessment .....                         | 3            |
| CSD 416      | Intro to Language Disorders.....                           | 3            |
| CSD 417      | Intro to Lang. Disorders Lab .....                         | 1            |
| CSD 425      | Intro to Clinical Processes .....                          | 1            |
| CSD 504      | Aural Rehabilitation .....                                 | 3            |
| CSD 506      | Acoustic & Perceptual Phon.....                            | 3            |
| CSD 514      | Speech-Sound Disorders.....                                | 3            |
| CSD 515      | Speech-Sound Disorders Lab.....                            | 1            |
| CSD 517      | Communication in Aging .....                               | 3            |
| CSD 518      | Deaf Culture.....  | 3            |
| CSD 519      | Genetic & Organic Syndromes ....                           | 3            |
| CSD 521      | Genetic & Organic Syndromes Lab.....                       | 1            |
| CSD 605      | Neuroscience of Speech & Language: Basic Processes.....    | 4            |
| <i>Total</i> | .....  | (52–53 hrs.) |

**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.

**Honors Program**

Scholarship and research are encouraged at the undergraduate level. Students who meet the qualifications should explore adding the honors program to their undergraduate major. Students who are not CSD majors and are involved in the Emory Lindquist Honors Program, please contact the CSD department to enroll in these courses.

Admission requirements include:

1. Admission to the CSD undergraduate major or D/HH concentration;
2. An overall GPA of 3.500 in CSD coursework;
3. A one-page, double-spaced letter describing reasons for applying to the honors track, goals, and potential benefits to participating in the program; and
4. A CSD faculty member to mentor the final project.

Students admitted to the CSD honors track must complete the following:

1. Maintain a 3.500 cumulative GPA in CSD coursework;
2. Complete honors assignments in CSD 416H, 490H, 506H, 514H, 517H, 519H or 605H (minimum 12 credit hours);
3. Actively participate in facilitated meetings with other CSD honors students; and

4. Complete and present a mentored scholarship activity during the last year of the program.

**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 57 credit hours. Students wishing to enroll in this concentration must meet the admission requirements for the undergraduate major.

*Curriculum:*

|               |  |             |
|---------------|--|-------------|
| <i>Course</i> | .....  | <i>hrs.</i> |
| CSD 111       | Disorders of Human Communication .....                     | 3           |
| CSD 210       | Physics of Sound <i>or</i>                                 |             |
| PHYS 210      | Physics of Sound.....                                      | 3           |
| CSD 240       | Introduction to Deaf and Hard of Hearing .....             | 2           |
| CSD 251       | Auditory Development and Disorders.....                    | 2           |
| CSD 260       | Signing Exact English I.....                               | 2           |
| CSD 270       | American Sign Language I.....                              | 3           |
| CSD 301       | Basic Anatomy and Physiology of the Speech Mechanism ..... | 2           |
| CSD 302       | Basic Anatomy and Physiology of the Auditory System .....  | 2           |
| CSD 304       | Early Language Development ....                            | 3           |
| CSD 304L      | Early Language Development Lab.....                        | 0           |
| CSD 306       | Applied Phonetics .....                                    | 3           |
| CSD 306L      | Applied Phonetics Lab .....                                | 0           |
| CSD 351       | Intro. to Auditory Assessment ....                         | 3           |
| CSD 360       | Signing Exact English II.....                              | 2           |
| CSD 370       | American Sign Language II.....                             | 3           |

|                    |  |           |
|--------------------|--|-----------|
| CSD 416            | Intro. to Language Disorders .....                         | 3         |
| CSD 417            | Intro. to Language Disorders Lab .....                     | 1         |
| CSD 504            | Aural Rehabilitation .....                                 | 3         |
| CSD 514            | Speech-Sound Disorders .....                               | 3         |
| CSD 515            | Speech-Sound Disorders Lab .....                           | 1         |
| CSD 518            | Deaf Culture .....   | 3         |
| CSD 519            | Genetic & Organic Syndromes ...                            | 3         |
| CSD 521            | Genetic & Organic Syndromes Lab.....                       | 1         |
| CSD 522            | Deaf Heritage .....  | 2         |
| CSD 605            | Neuroscience of Speech and Language: Basic Processes ..... | 4         |
| <i>Total Hours</i> | .....  | (57 hrs.) |

**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, 301, 302, 304, 304L, 306, 306L, 517, 519, 521.

**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.

*Note: The certificate was suspended beginning the 2012-2013 academic year. Please consult the department website for details on curriculum and current program status.*

**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. Physics of Sound (3). 2R; 1L.** *General education issues and perspectives course.* Cross-listed as PHYS 210. Introduction to 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 symptomatology of auditory disorders and pathologies.

**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 304. Early Language Development (3).** 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. Corequisite: 304L.

**CSD 306. Applied Phonetics (3).** 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. 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, 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, 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, nonmanual 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, 381.

**CSD 351. Introduction to Auditory Assessment (3).** History and scope of the field. Surveys audiometry 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 416. Introduction to Language Disorders (3).** Introduces language disorders and children who do not acquire language typically. Studies language and behavioral characteristics of children with specific language impairment, mental retardation, learning disabilities, autism, hearing impairment and acquired language disorders. Prerequisites: CSD 304 with a grade of B (3.000 points per credit hour) or better, 304L, or instructor's consent. Corequisite: CSD 417.

**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 with a grade of B (3.000 points per credit hour) or better, 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-analyses, 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 504. Aural Rehabilitation (3).** Discussion and labs concerning the role of speech-language pathologists and audiologists in evaluation and treatment of hearing-impaired children, adolescents, adults and their families. Students focus on understanding psychological, social, educational and occupational impacts of hearing loss; 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. Replaced CSD 764 effective spring 2012. Prerequisite: CSD 351 or instructor's consent.

**CSD 506. 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. Replaced CSD 706 effective summer 2012. Prerequisites: PHYS/CSD 210; CSD 301 and 302 with grades of B (3.000 points/credit hr.) or better.

**CSD 514. Speech-Sound Disorders (3).** Discusses basic methods and procedures for identifying, assessing, analyzing and remediating speech-sound disorders. Practice in phonetic transcription of highly unintelligible speech samples. Prerequisites: CSD 306 with a grade of B (3.000 points/credit hour) or better, 306L, or instructor's consent. Corequisite: CSD 515.

**CSD 515. Speech-Sound Disorders Lab (1).** Laboratory experience compliments the topics covered in CSD 514 and includes classroom and clinic observations. Prerequisites: CSD 306 with a grade of B (3.000 points/credit hour) or better, 306L or instructor's consent. 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 519. Genetic and Organic Syndromes (3).** Introduces human genetics and the impact of chromosomal and structural anomalies of communication disorders. Assessment and remediation of cleft palate speech. Prerequisites: CSD 301, 302 with grades of B (3,000 points/credit hour) or better. Corequisite: CSD 521.

**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 are 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 with grades of B (3,000 points/credit hour) or better. 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 570. Accent Modification (3).** Primarily for the non-native speaker of American English wanting to improve pronunciation. Focuses upon causes of foreign accent. Analyzes speech patterns and designs an individual program in accent modification. Provides intensive practice. Not for the student who is beginning the study of English.

**CSD 605. Neuroscience of Speech and Language: Basic Processes (4).** A consideration of basic neuroanatomy and neurophysiology necessary for obtaining an understanding of the representation of speech and language in the human central nervous system and of conditions resulting from neurological impairment. Prerequisites: CSD 301 with a grade of B (3,000 points/credit hour) or better, senior standing.

**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 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 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 WSU Graduate Catalog for courses numbered 800 and above.

**Medical Laboratory Sciences (MLS)**

The medical laboratory scientist's role in the health care team is to perform laboratory procedures accurately and precisely in order to aid in the prevention, diagnosis and treatment of diseases. Most medical laboratory scientists are employed in medical laboratories in settings such as hospitals, clinics, reference labs and physicians' offices. The medical laboratory scientist 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. The bachelor degree may also be used as a foundation for graduate study in health professions.

**Bachelor of Science in Medical Laboratory Sciences**

The Bachelor of Science program in medical laboratory sciences requires a total of 131 hours, including 72 hours of premedical laboratory sciences curriculum in the basic sciences, social sciences, humanities and communication. The university-based program includes structured lecture and laboratory experiences on the WSU campus, plus 20 weeks in affiliated clinical laboratories. The program is affiliated with clinical laboratories in Kansas, Oklahoma and Colorado.

Upon successful completion of the program, students are granted the Bachelor of Science in medical laboratory sciences and are eligible to sit for national certification examinations.

*Preprofessional Curriculum*

|  |                |
|--|----------------|
| Course   | .....hrs.      |
| Basic Skills   | .....(12 hrs.) |
| ENGL 101&102 College English I and II.....   | 6              |
| COMM 111 Public Speaking.....  | 3              |
| MATH 111 College Algebra.....  | 3              |
| Fine Arts and Humanities   | .....(12 hrs.) |
| One introductory course from a fine arts discipline  | .....3         |
| One introductory course from each of two humanities disciplines  | .....6         |
| A further study course from same discipline as introductory course or an issues and perspectives course in fine arts or humanities | .....3         |
| Social and Behavioral Sciences   | .....(9 hrs.)  |
| Two introductory courses from different social and behavioral sciences disciplines   | .....6         |

|   |              |
|---|--------------|
| 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.....   | (38-40 hrs.) |
| BIOL 210 General Biology I  | .....4       |
| BIOL 223 Human Anatomy and Physiology   | .....5       |
| BIOL 220 Intro. to Microbiology   | .....4       |
| CHEM 211 General Chemistry I*   | .....5       |
| CHEM 212 General Chemistry II*  | .....5       |
| Two of the following three courses  |              |
| CHEM 533 Elem. Organic Chem.  | .....3       |
| MLS 411M Clinical Biochemistry  | .....3       |
| HS 400 Intro. to Pathophysiology  | .....4       |
| MLS 405 Medical Immunology  | .....3       |
| MLS 493 Molecular Diagnostics   | .....3       |
| HP 203 Medical Terminology  | .....2       |

\*May substitute CHEM 514 and 523, Inorganic and Analytical Chemistry (7 hours), if prerequisites are met. Check with adviser.

**Admission to Professional Curriculum**

Applications should be submitted to the medical laboratory sciences program by April 1 for summer or fall entry, and by November 1 for spring entry.

To qualify as a candidate for admission to the professional phase, the student must:

1. Be admitted to WSU;
2. Be in the process, or have completed, the preprofessional requirements;
3. Submit application to department;
4. Submit three letters of recommendation;
5. Have a minimum GPA of 2.500; and
6. Complete a professional goal statement.

Acceptance into the professional phase of the program is determined by the medical laboratory sciences admissions committee.

|   |               |
|---|---------------|
| Professional Curriculum.....                            | 59 total hrs. |
| Course  | .....hrs.     |
| MLS 400 Clinical Lab Management/Education               | .....3        |
| MLS 450 Clinical Chemistry I and lab                    | .....4        |
| MLS 451 Clinical Chemistry I Lab                        | .....1        |
| MLS 452 Analysis of Body Fluids                         | .....3        |
| MLS 456 Clinical Chemistry II                           | .....3        |
| MLS 457 Clinical Chemistry II Lab                       | .....1        |
| MLS 459 Applied Clinical Chemistry                      | .....3        |
| MLS 460 Hematology I                                    | .....3        |
| MLS 461 Hematology I Lab                                | .....1        |
| MLS 466 Hematology II                                   | .....3        |
| MLS 467 Hematology II Lab                               | .....1        |
| MLS 469 Applied Hematology                              | .....3        |
| MLS 470 Immunohematology I                              | .....3        |
| MLS 471 Immunohematology I Lab                          | .....1        |
| MLS 476 Immunohematology II                             | .....3        |
| MLS 477 Immunohematology II Lab                         | .....1        |
| MLS 479 Applied Immunohematology                        | .....3        |
| MLS 480 Immunological Techniques for Clinical Diagnosis | .....2        |
| MLS 489 Applied Clinical Techniques                     | .....3        |
| MLS 490 Clinical Microbiology I                         | .....3        |

|         |   |   |
|---------|---|---|
| MLS 491 | Clinical Microbiology I Lab .....             | 1 |
| MLS 494 | Special Topics in Clinical Microbiology ..... | 3 |
| MLS 496 | Clinical Microbiology II .....                | 3 |
| MLS 497 | Clinical Microbiology II lab .....            | 1 |
| MLS 498 | Applied Clinical Microbiology .....           | 3 |

### MLT to BSMLS 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 laboratory sciences program should contact the department office for information concerning degree completion. Other MLS 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 health and professional liability insurance. Students must provide evidence of a completed physical examination, including a tuberculin skin test, rubella, rubeola titer, Tdap and hepatitis immunization prior to their clinical assignments in the affiliate laboratories.

### Lower-Division Courses

**MLS 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

**MLS 310. Clinical Laboratory Services (1).** An overview of the services and information provided by the clinical laboratory. Emphasizes basic procedures and interpretation of data. Prerequisite: limited to physician assistant students in professional program.

**MLS 400. Clinical Laboratory Management/ Education (3).** A study of the principles and methodologies of laboratory management and supervision and teaching techniques applicable to the clinical laboratory sciences. Prerequisite: program consent.

**MLS 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.

**MLS 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.

**>MLS 430. Impact of Disease Upon Global Events (3).** *General education issues and perspectives course.* Designed to provide a background for discussions of pathological determinants/trends that influence events in history including those involving emerging and re-emerging diseases.

**MLS 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.

**MLS 451. Clinical Chemistry I Laboratory (1).** 3L. 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.

**MLS 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.

**MLS 456. Clinical Chemistry II (3).** 3R. Includes advanced instrumentation principles and techniques, acid-base balance, advanced enzymology, endocrinology and toxicology. Emphasizes relationships existing between substances of the body and procedural development and evaluation. Prerequisite: MLS 450.

**MLS 457. Clinical Chemistry II Laboratory (1).** 3L. 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: MLS 456, concurrent enrollment, or program approval.

**MLS 459. Applied Clinical Chemistry (3).** Application of clinical chemistry procedures and techniques in the analysis of body fluids in a clinical laboratory setting. Offered *Cr/NCr* only. Prerequisites: MLS 450, 456, program consent.

**MLS 460. Hematology I (3).** Emphasizes the theory underlying basic procedures performed in the hematology laboratory and the relationship between these procedures and the diagnosis of disease. Prerequisites: BIOL 223 and program consent.

**MLS 461. Hematology I Laboratory (1).** 3L. Emphasizes performance of the basic procedures used in the hematology laboratory, including complete blood counts, normal and abnormal differentials, and miscellaneous hematology tests. Pre- or corequisites: MLS 460 and/or program consent.

**MLS 466. Hematology II (3).** Emphasizes the clinical significance of laboratory data and its correlation with pathologic conditions. Includes in-depth discussions of anemias and leukemias. Prerequisites: MLS 460, 461, program consent.

**MLS 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: MLS 466 and program consent.

**MLS 469. Applied Hematology (3).** Application of the theory and technical skills of hematology in a clinical laboratory. Offered *Cr/NCr* only. Prerequisites: MLS 467, program consent.

**MLS 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: MLS 405 or equivalent or instructor's consent.

**MLS 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: MLS 405 or equivalent and MLS 470 or concurrent enrollment or instructor's consent.

**MLS 476. Immunohematology II (3).** 3R. Emphasizes problem solving in clinical blood banking with attention to antibody identification, serological incompatibilities and hemotherapy. Prerequisite: MLS 470 or instructor's consent.

**MLS 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: MLS 476 or instructor's consent.

**MLS 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 encountered in performing any of the procedures. Offered *Cr/NCr* only. Prerequisites: MLS 467, 476, 477, program consent.

**MLS 480. Immunological Techniques for Clinical Diagnosis (2).** 2R. Emphasizes special testing procedures used in the clinical laboratory for diagnosis of immunological disorders such as autoimmune diseases. Pre- or corequisites: MLS 405 and program consent.

**MLS 489. Applied Clinical Techniques (3).** Application of theory and techniques of clinical immunology, serology, body fluids and specimen collection in the clinical laboratory. Offered *Cr/NCr* only. Prerequisites: MLS 400, 452, 480, program consent.

**MLS 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 220 or 330. Corequisite: MLS 491.

**MLS 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 MLS 490. Prerequisite: BIOL 220 or 330. Pre- or corequisites: MLS 490, program consent.

**MLS 493. Molecular Diagnostics in the Clinical Laboratory (3).** 3R. Introduction to the use of molecular biology in the clinical setting including basic concepts of molecular diagnostics and current types of diagnostic applications in the areas of infectious disease, hematological malignancies, solid tumors, genetic disease, and forensic pathology and identity testing. Prerequisite: General Biology I or instructor's consent.

**MLS 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 220 or 330 and program consent.

**MLS 496. Clinical Microbiology II (3).** Advanced theory, procedures and rationale for the isolation and identification of the nonfermenters, the anaerobic and unusual aerobic organisms. Discusses disease processes and identification of the acid-fast bacteria. Introduces advanced antimicrobial susceptibility testing techniques. Prerequisites: MLS 490, 491, 497, or concurrent enrollment.

**MLS 497. Clinical Microbiology II Laboratory (1).** 4L. Advanced laboratory techniques in the isolation and identification of nonfermenters, the anaerobic and unusual aerobic organisms. Techniques for cultures and identification of acid-fast bacteria. Advanced antimicrobial susceptibility testing techniques. Prerequisites: MLS 490, 491. Corequisite: MLS 496.

**MLS 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: MLS 496, 497.

Please see the WSU 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's 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 other courses. Prerequisite: successful completion of freshmen 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. Please see the Graduate Catalog for information about WSU's Master of Physician Assistant program.

## 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 Master of Arts in aging studies, 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 aging studies or long-term care, management concepts, and finance or accounting. The required courses are available through the department of public health sciences, 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 PHS department.

## Aging Studies (AGE)

The instructional mission of the degree program in aging studies at Wichita State is to provide knowledge of aging and its impact on individuals, families and society to students preparing for or engaged in careers in which they will plan, manage and deliver services for the aging through public- or private-sector organizations, agencies or institutions.

The aging studies program offers a minor in aging studies at the undergraduate level. The Master of Arts degree in aging studies is offered at the graduate level.

The College of Liberal Arts and Sciences will continue to offer undergraduate degrees with a

concentration in aging studies through their field major and Bachelor of General Studies options detailed on page 146. Contact the LAS Advising Center for degree requirements.

**Minor.** The minor in aging studies consists of at least 15 hours of aging studies courses, including AGE 100 and 560, and 9 hours selected from the following: AGE 404, 513, 518.

### Lower-Division Courses

**AGE 100. Introduction to Gerontology (3).** A multidisciplinary overview of the field of aging, with attention to cultural, social, psychological, biological and economic factors which influence the circumstances of the elderly.

**AGE 150. Workshop in Gerontology (1-3).** Provides specialized instruction, using a variable format in a gerontologically relevant subject. Repeatable for credit.

### Upper-Division Courses

**>AGE 404. Psychology of Aging (3).** *General education further study course.* Cross-listed as PSY 404. An examination of the issues surrounding the adult aging process. Includes personality and intellectual change, mental health of the elderly, and the psychological issues of extending human life. Emphasizes the strengths of the elderly and prevention of psychological problems of the elderly. Prerequisite: PSY 111.

**AGE 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: AGE 100 and instructor's consent.

### Courses for Graduate/Undergraduate Credit

**AGE 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 aging studies credit and instructor's consent.

**>AGE 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. Prerequisite: ETHS 100, AGE 100, SOC 111 or instructor's consent.

**>AGE 513. Sociology of Aging (3).** *General education further study course.* 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.

**AGE 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 life span perspective.

**AGE 516. Age, Work and Retirement (3).** Examines the basic implications of population aging on work life and retirement opportunities, now and in the future. Explores factors that may place individuals at risk for economic insecurity as they grow older. Topics covered include the current situation in the United States and other countries, examines the economic status of older

Americans, addresses retirement policies in the private sector, social security and health care issues. Replaced GERO 850E.

**AGE 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.

**AGE 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. Prerequisite: AGE 100, SOC 111, or junior standing.

**AGE 525. Dying, Death and Bereavement (3).** A broad overview of the psychological aspects of death and dying in our society. Topics include attitudes toward and preparation for death, the understanding of and care for terminally ill patients, funeral rituals, burial, mourning and grief practices; suicide and euthanasia. The class involves experiential learning activities such as personal preparation for death and field trips such as visiting a funeral home. These learning activities are designed to help the student be better equipped to help those who must make such preparations for themselves or loved ones. Replaced GERO 550N effective fall 2012.

**AGE 527. Introduction to Sexuality and Aging (3).** Focuses on all aspects of sexuality and aging and the issues that arise with respect to sexual behavior as humans age. Examines human sexuality over the life course, focused on the experiences of those 65 and older and the impact of chronic disease, cognitive decline and physical disabilities on sexual attitudes and behaviors. Addresses key concerns regarding sexuality and aging, including misconceptions about sexuality and aging as well as the problems with sexuality that members of the aging population sometimes face. It also looks at solutions, treatments and techniques that can be applied to help address some of those problems. The course perspective is interdisciplinary, taking into account the physiological, psychological, interpersonal and social influences which shape our understanding of sexuality in the aged. Replaced GERO 550R effective fall 2012.

**AGE 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 AGE 100 or junior standing.

**AGE 550. Selected Topics in Aging Studies (1–6).** Study in a specialized area of aging studies with the focus upon preprofessional programs and current issues in the field of aging. Emphasizing knowledge and skills in applied areas of aging studies as they relate to an emerging area

of research and application. Repeatable up to 6 hours. Prerequisite: instructor's consent.

**AGE 551. Workshop (3).** Specialized instruction using a variable format in relevant aging studies subjects. Repeatable for credit up to 6 hours.

**AGE 560. Aging Network Seminar (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 aging studies credit or instructor's consent.

**AGE 663. Economic Insecurity (3).** Cross-listed as ECON 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: ECON 202 or instructor's consent, and junior standing.

**AGE 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.

**AGE 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.

**AGE 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: AGE 798 or 6 hours of aging studies.

**AGE 720. Independent Readings (1–3).** Supervised study of special topics and problems relating to older adults. Repeatable up to 6 hours. Prerequisite: program consent.

**AGE 750. Workshop in Aging (1–3).** Provides specialized instruction, using a variable format in a gerontologically relevant subject. Repeatable for credit.

**AGE 780. Physical Dimensions of Aging (3).** Cross-listed as HPS 780. Designed to assist the student in developing an understanding of the complex physiological changes that accompany advancing age and the effects of physical activity on these factors. In addition, the student develops an appreciation for how functional consequences affect mental and social dimensions of life. Attention is given to sensory, motor, cognitive and psychological changes. Special emphasis is placed on factors associated with the preparation, implementation and evaluation of research projects involving older adult populations. Replaced GERO 550S/850S.

**AGE 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 AGE 810. AGE 781 is graded *Cr/NCr*, while AGE 810 is letter graded. Prerequisites: 12 hours of aging studies and instructor's consent.

**AGE 798. Interprofessional 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 aging studies. Prerequisite: admission to Graduate School.

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

## 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 sciences professionals. Health science majors are introduced to the full array of health career opportunities 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:

1. Develop a broad understanding of social and scientific principles necessary for a career in the health sciences;
2. Obtain the clinical foundation required to work in entry-level health science positions and/or to advance into graduate health profession education;
3. Explore the political, legal, social, multicultural and ethical issues that impact the practice of health care;
4. Expand interdisciplinary understanding and collaboration among the health professions;
5. Apply scientific knowledge, humanistic values, critical analysis and a systematic approach to solving problems;
6. Develop skills that prepare them to interact as professionals within a diverse, interdisciplinary health care environment; and
7. Develop skills for continuing professional growth and lifelong learning.

**Degree requirements**

*Basic skills* ..... (12 hrs.)  
 (each course must generate a grade of 2.000 or more credit points per credit hour)

|   |                         |                  |
|---|-------------------------|------------------|
| ENGL 101  | College English I ..... | 3                |
| ENGL 102  | College English II..... | 3                |
| COMM 111  | Public Speaking.....    | 3                |
| MATH 111  | College Algebra.....    | 3                |
| <i>Humanities &amp; Fine Arts</i> .....(12 hrs.)    |                         |                  |
| Fine Arts   | .....                   | 3                |
| Introductory courses                                | .....                   | 3                |
| *Further Study/IP                                   | .....                   | 3                |
| <i>Social and Behavioral Sciences</i> .....(9 hrs.) |                         |                  |
| Introductory courses                                | .....                   | 6                |
| *Further Study/IP                                   | .....                   | 3                |
| <i>Math &amp; Natural Sciences</i> .....(9 hrs.)    |                         |                  |
| Introductory courses                                | .....                   | 6                |
| *Further Study/IP                                   | .....                   | 3                |
| <b>Total</b>  | .....                   | <b>(42 hrs.)</b> |

\*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 GEP 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** | Introductory Chemistry .....      | 5 |
| CHEM 211** | General Chemistry I.....          | 5 |
| CHEM 212   | General Chemistry II.....         | 5 |
| CHEM 531   | Organic Chemistry I.....          | 5 |
| GEOL 102   | Earth Science/Environ. ....       | 4 |
| GEOL 111   | General Geology .....             | 4 |
| GEOL 300   | Energy Resources Environ. ....    | 3 |
| PHYS 111   | Introductory Physics.....         | 4 |
| PHYS 131   | Physics for Health Sciences ..... | 3 |
| PHYS 213   | Gen College Physics I.....        | 5 |

|   |                              |   |
|---|------------------------------|---|
| PHYS 214  | Gen College Physics II ..... | 5 |
| STAT 370  | Elementary Statistics .....  | 3 |
| **Human Anatomy/Physiology plus one semester of college chemistry are prerequisite for HS 301 & 400 |                              |   |

*Health Science Core (all 18 hrs. required)*

|          |   |   |
|----------|---|---|
| HP 303   | Medical Terminology.....                        | 3 |
| PHIL 327 | Bioethics .....                                 | 3 |
| HMCD 310 | Intro. to the U.S. Health Services System ..... | 3 |
| HMCD 325 | Intro to Epidemiology.....                      | 3 |
| HMCD 344 | Role of Culture in Health Care ....             | 3 |
| HMCD 354 | Health Politics.....                            | 3 |

*Issues Core (select three courses)*

|          |   |   |
|----------|---|---|
| AGE 404  | Psychology of Aging.....                              | 3 |
| AGE 513  | Sociology of Aging.....                               | 3 |
| AGE 518  | Biology of Aging .....                                | 3 |
| AGE 560  | Aging Network Seminar.....                            | 3 |
| HP 330   | Cancer: Perspectives and Controversies.....           | 3 |
| HMCD 326 | Emerging Health Care Issues of the 21st Century.....  | 3 |
| HMCD 327 | Intro. to Global Health Issues.....                   | 3 |
| HMCD 328 | Intro to Complementary and Alternative Medicine ..... | 3 |

*Management/Research (select three courses)*

|          |  |   |
|----------|--|---|
| HMCD 333 | Organizational Behavior and Leadership in Health Org. .... | 3 |
| HMCD 352 | Strategic Mgmt. in Health Services Organizations .....     | 3 |
| HMCD 428 | Health Care Organization.....                              | 3 |
| HMCD 478 | Health Economics.....                                      | 3 |
| HMCD 642 | Financing Health Care Serv. ....                           | 3 |
| HMCD 622 | Human Resources Mgmt. in Health Care Organizations.....    | 3 |
| NURS 325 | Intro to Evidence-Based Practice.2                         |   |

*Clinical Sciences (all 10 credit hours required)*

|        |                                      |   |
|--------|--------------------------------------|---|
| HS 301 | Clinical Pharmacology.....           | 3 |
| HS 331 | Prin. of Dietetics & Nutrition ..... | 3 |
| HS 400 | Intro to Pathophysiology.....        | 4 |

*Practicum (required)*

|              |                                   |                     |
|--------------|-----------------------------------|---------------------|
| HMCD 460     | Public Health Sciences Pract..... | 3                   |
| <b>Total</b> | .....                             | <b>(48-49 hrs.)</b> |

**Electives:** Complete additional electives to meet the 124 credit hours requirements for a BS degree.

Elective coursework may be taken both inside and outside the college, taking into account the student's educational objectives. Students seeking the BS health science degree are encouraged to obtain a minor (or equivalent) in another area, which is typically 15-21 hours.

**Requirements for Graduation:**

Students in the health sciences 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 1.700 credit points per credit hour.

To be eligible for graduation from Wichita State University, students must have credit for 124 acceptable credit hours toward their degree and a GPA in the major of 2.250. Students transferring from a two-year college must complete

at least 60 hours of four-year college work and 45 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 (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 HSMCD 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 applying the social and business sciences to a career in the health care sector. Students enrolled in this curriculum must complete 18 credit hours of introductory coursework that provides the knowledge and skill sets that are basic to health services delivery and population health assessment. Program majors complete 24 credit hours of elective courses beyond the introductory coursework. Elective courses are chosen, with the assistance of an assigned faculty adviser, based on a student's career focus. In addition to didactic coursework, students must complete a 3-credit-hour practicum placement (educational work experience) in a local health care organization, as well as a 3-credit-hour capstone seminar at or near the end of their program of study.

For students with a health services management interest, elective courses are selected to provide the analytic, administrative and leadership skills necessary for entry level managerial positions in acute care medicine (medical group practices, health insurance corporations, medical product companies, hospital and ambulatory care clinics, and EMS systems management), long-term care (nursing homes, home health care agencies, continuing care facilities and hospice), and public and community health (state health agencies, local health departments and community-based health and wellness agencies).

For students with a community orientation, elective courses are selected to provide entry-level competencies in designing and implementing culturally sensitive health care services, planning and assessing health programs, developing strategies for health promotion, and building advocacy relationships with those who make health policy.

Both options allow students to gain first-hand experience with local community initiatives.

Students who are interested in pursuing a career in health services management are strongly encouraged to minor in business administration as an appropriate complement to this career choice. Additional information on this minor can be found in the Barton School of Business section of this catalog, or can be obtained through program advisers. 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 Professions' 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 ENGL 101 and 102, COMM 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 communication 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/<br>Statistical Software Applications<br>(lab optional) |
| CESP 704     | Intro. to Educational Statistics   |
| STAT 370     | Elementary Statistics  |
| PSY 301      | Psychological Statistics   |
| SOC 501      | 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<br>Professions                |
| COMM 328 | Teamwork, Leadership & Group<br>Communication              |
| ENGL 210 | Composition: Business,<br>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 | Intro. to the U.S. Health Services<br>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 adviser with primary expertise in the student's area of interest. Students may not select HMCD elective coursework without input from their faculty advisers. *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, Public Health Sciences Practicum; 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 1.700 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..... (48 hrs.)**

|                                |  |
|--------------------------------|--|
| HMCD Introductory Courses..... | (18 hrs.)  |
| HMCD 325                       | Introduction to Epidemiology .....3                            |
| HMCD 330                       | Community Health and<br>Development .....3                     |
| HMCD 333                       | Organizational Behavior and<br>Leadership in Health Org. ....3 |
| HMCD 344                       | Role of Culture in Health Care ....3                           |

|          |   |
|----------|---|
| HMCD 352 | Strategic Management in Health<br>Service Organizations.....3 |
| HMCD 354 | Health Politics.....3   |

**HMCD Upper Division Program ..... (24 hrs.)**  
Seven elective courses (21 hrs.) One required course (3 hrs.)

*Required Upper-division course:*

|          |                                   |
|----------|-----------------------------------|
| HMCD 642 | Financing Health Care Serv. ....3 |
|----------|-----------------------------------|

*Elective upper-division courses to be selected with guidance of faculty adviser:*

|   |   |
|---|---|
| AGE 516                                 | Age, Work and Retirement.....3                                  |
| AGE 560                                 | Aging Network Seminar.....3                                     |
| HMCD 326                                | Emerging Health Care Issues of<br>the 21st Century .....3       |
| HMCD 327                                | Intro. to Global Health Issues.....3                            |
| HMCD 328                                | Introduction to Alternative and<br>Complementary Medicine.....3 |
| HMCD 403                                | Health Education and Health<br>Promotion.....3                  |
| HMCD 423                                | Prgrm. Planning/Development<br>in Health Services .....3        |
| HMCD 428                                | Health Care Organization.....3                                  |
| HMCD 443                                | Social Marketing .....3   |
| HMCD 458                                | Long-Term Care Systems.....3                                    |
| HMCD 478                                | Health Economics.....3  |
| HMCD 621                                | Supervisory Management in<br>Health Care Organizations.....3    |
| HMCD 622                                | HR Management in Health<br>Care Organizations.....3             |
| HMCD 623                                | Coalition Building.....3  |
| HMCD 625                                | Special Topics in Health Serv. ....3                            |
| HMCD 648                                | Concepts of Quality.....3                                       |
| HMCD 663                                | Community Action Research.....3                                 |
| HP 325E                                 | Health Care Ethics <i>or</i>                                    |
| PHIL 327                                | Bioethics .....3  |
| <i>Required Practicum..... (3 hrs.)</i> |   |
| HMCD 460                                | PHS Practicum.....3   |
| <i>Required Capstone..... (3 hrs.)</i>  |   |
| HMCD 470                                | Capstone Seminar in HMCD .....3                                 |

*Total Hours Required for HMCD major:*

18 hrs. required introductory courses + 24 hrs. selected upper-division program courses + 3 hrs. practicum + 3hrs. 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 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 biomedical technology), the economic support system and the delivery system.

**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.

**>HMCD 326. Emerging Health Care Issues of the 21st Century(3).** *General education issues and perspectives course.* 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 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.

**HMCD 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. Replaced PA 328.

**HMCD 330. Community Health and Development (3).** Introduces concepts, theories and methods used to understand the social determinants of health as well as organizational and system responses to health disparities and community resource needs. Examines the meaning of the key terms *health*, *community*, *community building*, and *community development* within historical and contemporary perspectives. Students learn the distinction between community health and healthy communities and the importance of starting with such questions as *whose community?*, *whose health?* and *for whose benefit?* Students review several approaches for identifying community needs, including the use of secondary data sources, interview methods, focus groups and surveys. Finally, students examine the role of creative leadership in providing the link between knowledge about the community and effective social change.

**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, *Healthy 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 promotional 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. Public Health Sciences Practicum (3).** Enables students to apply skills and knowledge through a supervised field training experience in a health care setting that complements the student's interests and career goals. Enables 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. Requires participation in a broad fieldwork component, completion of a focused project component, and a written report of the experience. 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 assess and evaluate ethical decision-making situations. Students, whose courses of study have emphasized health services management, 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 macroeconomics 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, and approved by, appropriate faculty sponsors and cooperative education coordinators. 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 meetings, 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 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. Prerequisites: 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 nonfinancial personnel. Emphasizes understanding and application of general financial concepts crucial to the health setting; considers 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 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 Planeview, 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.

## School of Nursing (NURS)

The School of Nursing offers the Bachelor of Science in Nursing (BSN), the Master of Science in Nursing (MSN), and the Doctor of Nursing Practice (DNP). For more information about the graduate degrees, 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 direct inquiries to: Undergraduate Nursing Office, School of Nursing, Wichita State University, 1845 Fairmount, Wichita, Kansas 67260-0041. Email address: nursing.undergraduate@wichita.edu

### 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.

| Course  | hrs. |
|---|------|
| <i>Basic Skills</i>   |      |
| MATH 111 or 112   | 3    |
| ENGL 101 College English I  | 3    |
| ENGL 102 College English II   | 3    |
| COMM 111 Public Speaking  | 3    |
| <i>Humanities and Fine Arts</i>   |      |
| Fine arts appreciation  | 3    |
| PHIL 100, 125 or 144  | 3    |
| Introductory course in humanities   | 3    |
| <i>Social and Behavioral Sciences</i>   |      |
| PSY 111 General Psychology  | 3    |
| PSY 325 Developmental Psychology  | 3    |
| SOC 111 Introduction to Sociology   | 3    |
| <i>Natural Sciences and Mathematics</i>   |      |
| BIOL 220 Introduction to Microbiology (applies as intro. gen. ed. course for the BSN degree only) | 4    |
| CHEM 103/211, Intro./General Chemistry I  | 5    |
| <i>Other Prerequisites</i>  |      |
| 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 prior to beginning the professional curriculum;
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 the standardized TEAS test with a minimum percentage score, or achieve an ACT score ≥ 27 points, or an SAT score ≥ 1125.

**GPA requirements to finalize admission and prior to starting BSN courses:**

- Cumulative GPA for all science classes (chemistry, microbiology, anatomy, physiology, pathophysiology and pharmacology) must be ≥ 3.000
- Cumulative GPA must remain ≥ 2.750
- All prerequisites must be successfully completed with a grade of C (2.000) or higher.

**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 university credit is required for graduation.

| Course   | hrs. |
|--|------|
| <i>Semester 5</i>  |      |
| NURS 302 Professional Nursing Practice .....                       | 3    |
| NURS 310 Fundamentals of Nursing Care ..                           | 4    |
| NURS 320 Nursing Care of Adults I.....                             | 4    |
| NURS 345 Health Assessment .....                                   | 4    |
| HS 331 Principles of Diet and Nutrition (pre- or corequisite)..... | 3    |
| <i>Semester 6</i>  |      |
| NURS 325 Intro to Evidence-Based Pract. ....                       | 2    |
| NURS 340 Mental Health Nursing Care.....                           | 4    |
| NURS 360 Clinical Care of Adults I.....                            | 4    |
| NURS 365 Nursing Care of Older Adults.....                         | 2    |
| NURS 370 Nursing Care of Adults II .....                           | 4    |
| <i>Semester 7</i>  |      |
| NURS 410 Clinical Care of Adults II.....                           | 4    |
| NURS 430 Pediatric Nursing Care .....                              | 3    |
| NURS 440 Maternal/Newborn Nurs. Care ...                           | 3    |
| NURS 450 Nursing Care of Populations .....                         | 3    |
| <i>Semester 8</i>  |      |
| NURS 460 Leadership & Clinical Decision Making .....               | 4    |

|   |   |
|---|---|
| NURS 470 Nursing Care of Clients with Critical Illness..... | 5 |
| NURS 499 Clinical Capstone (5 weeks) .....                  | 4 |

*Additional required coursework*

|  |   |
|--|---|
| Bioethics .....                                | 3 |
| Issues & perspectives general ed. course ..... | 3 |

**Accelerated BSN Program**

The accelerated program prepares students to graduate with a Bachelor of Science in Nursing degree. Graduates of the program are prepared to take the RN licensure examination, and for entry-level nursing positions in all health care settings. The program provides a foundation for graduate study in nursing. The curriculum is the same as the traditional BSN in a compressed format. A new class of students will begin each May and finish in May of the following year. Instruction is intense with courses offered full time with few breaks between sessions. There will be evening and weekend class and clinical time. Students will receive the same number of clinical hours as their counterparts in the traditional program.

The rigorous 13-month curriculum recognizes each person’s past experiences and success and is geared toward students who are capable of undertaking this course of study. This program is recommended for students who have senior standing (90+ credits) or have a previous bachelor’s degree or higher.

Application requirements are a cumulative GPA of 3.000 or higher; minimum passing scores on the standardized entrance test; completion of all nursing prerequisites with a grade of 2.000 or higher prior to entering the program; and admission to Wichita State University before the application deadline of September 1.

Tuition and fees for the accelerated program are approximately double of the cost of the traditional four-semester 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.

**MIC T 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 within the last three years. Students seeking admission into this program should contact the School of Nursing.

**RN to BSN Progression Plan**

The RN to BSN plan offers advanced placement to registered nurses seeking a Bachelor of Science in Nursing degree. Twenty-five hours of retroactive credit or credit by exam in nursing courses can be applied to the degree. The RN to BSN curriculum follows the Kansas Nursing Articulation Plan.

Registered nurses must:

1. Submit verification of current license to practice as a registered nurse in Kansas; and
2. Submit official transcripts of college courses and records verifying completion of a nursing program.

Registered nurse students who have met admission requirements may obtain information from the School of Nursing regarding enrollment in the transition course, NURS 334, RN Bridge Course, and advanced placement by which they may validate 25 nursing credits at the upper-division level.

Wichita State University School of Nursing has developed an agreement with Butler Community College and Hutchinson Community College to facilitate the associate degree graduate in achieving the BSN degree. The collaborative program is called Professional Link for the Advancement of Nurses (PLAN). The School of Nursing is committed to assisting nurses to complete the BSN degree to further their knowledge base, provide a means for continued advancement in the profession, and to meet the necessary requirements for pursuing a graduate degree in nursing. Students seeking admission to this program should contact the School of Nursing.

**RN-BSN Professional Curriculum**

| Course   | hrs. |
|--|------|
| <i>Prerequisite and General Elective Courses</i>   |      |
| <i>Basic Skills</i>  |      |
| MATH 111 or 112 .....  | 3    |
| ENGL 101 College English I .....   | 3    |
| ENGL 102 College English II.....   | 3    |
| COMM 111 Public Speaking.....  | 3    |
| <i>Humanities and Fine Arts</i>  |      |
| Fine arts appreciation.....  | 3    |
| PHIL 100, 125 or 144 .....   | 3    |
| Course in humanities other than philosophy..   | 3    |
| <i>Social and Behavioral Sciences</i>  |      |
| PSY 111 General Psychology.....  | 3    |
| PSY 325 Developmental Psychology.....  | 3    |
| SOC 111 Introduction to Sociology.....   | 3    |
| <i>Natural Sciences and Mathematics</i>  |      |
| BIOL 220 Introduction to Microbiology (applies as an intro. gen. ed. course for the BSN degree only).. | 4    |
| CHEM 103/211, Intro./General Chemistry I....   | 5    |
| <i>Other Prerequisites</i>   |      |
| BIOL 223 Human Anatomy & Physiology .  | 5    |

|                               |      |
|-------------------------------|------|
| Statistics with approval..... | 3    |
| General electives* .....      | 13   |
| <b>Total</b> .....            | (60) |

#### Upper-Division Requirements

|                         |     |
|-------------------------|-----|
| Philosophy/Ethics ..... | 3   |
| Electives* .....        | 6   |
| <b>Total</b> .....      | (9) |

\* Three hours of general or upper-division electives must be an issues and perspectives course to meet general education requirements.

#### Professional Curriculum

|  |      |
|--|------|
| HS 301 Clinical Pharmacology.....                              | 3    |
| NURS 325 Intro to Evidence-Based Practice*<br>(fall only)..... | 2    |
| NURS 334 RN Bridge Course* .....                               | 4    |
| NURS 345 Health Assessment* .....                              | 4    |
| NURS 456 Primary Prevention* .....                             | 2    |
| NURS 461 Care Manager-RN* .....                                | 4    |
| NURS 495 Clinical Capstone .....                               | 2    |
| HS 400 Intro to Pathophysiology.....                           | 4    |
| Career enhancement electives .....                             | 5    |
| <b>Total</b> .....   | (30) |

Upper-division nursing credits awarded retroactively on the basis of associate degree in nursing or credit by exam .....

|                    |            |
|--------------------|------------|
| <b>Total</b> ..... | (124 hrs.) |
|--------------------|------------|

\* Internet course

#### Dual/Accelerated Bachelor's to Master's Degree Program (RN to MSN Program)

The RN to MSN Dual/Accelerated Program offers the opportunity for outstanding registered nurse (RN) undergraduate students, who are admitted to and enrolled in the BSN program at WSU, to advance their careers in a significant way by pursuing the BSN and MSN degrees in a coordinated program that provides the student with the high level of academic advising necessary for program success. A cumulative grade point average (GPA) of 3.250 or higher is required at the time of admission to the BSN program and must be maintained throughout the BSN and MSN programs.

Contact the School of Nursing for the latest updates.

#### 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 310. Fundamentals of Nursing Care (4). 2.5T; 4.5P.** Focuses on beginning skills in nursing practice and provides exposure to individuals in health care settings. Corequisites: semester 5 classes.

**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).** Cross-listed as DH 334. An overview of the process of evidence-based practice for health care. Emphasizes the discovery and analysis of evidence to support clinical practice. Open to nonmajors. Prerequisite: departmental consent.

**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 life span. 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 nonmajors.

**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. Examines and identifies sources of stress, conflict and professional dissatisfaction. Addresses conflict resolution, personal health promotion, how to cope with organizational change; ways to adapt to economic, ethical and political issues; assertive communication, stress-reducing strategies, and ways to find professional satisfaction in less than satisfactory circumstances. Emphasizes adopting and promoting 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: successful completion of semester 5 and 6 courses. Corequisites: semester 7 courses.

**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 440. Maternal/Newborn Nursing Care (3).** Focuses on family-centered maternal nursing care with clinical application in community and hospital settings. Prerequisites: semester 5 & 6 courses. Corequisites: semester 7 courses.

**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 emergent 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). 96P.** 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 enhance 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. Prerequisite: 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 506 and SOC 506. Introduces students to a psychological perspective on helping relationships that is 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 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.

**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 integrated 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 (1).** 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 relationship 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 complementary modalities. Includes an exploration of issues involved with the use of specific modalities within today's health care environment. Research-based discussion focuses on how to best prepare the health care professional to provide guidance to a client and the family to best achieve a physiological, mental, emotional and spiritual state most 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 graduate student preparing for practice as a lactation consultant. Provides an in-depth focus on the anatomical and physiological basis of lactation and breastfeeding. Explores factors that impact maintenance of health during lactation and clinical decisions for disease prevention. Addresses preparation for lactation consultant certification. Students work on case studies, develop a paper for publication and take a final examination via the Internet. Open to non-nursing majors. Prerequisite: admission to graduate program.

**NURS 723. Foundations of Nursing Education (3).** Assists the student to explore theoretical and practical aspects of curriculum development, and teaching of nursing in higher education and continuing education. Prerequisite: departmental consent.

**NURS 724. Nursing Education Practicum (1–3).** 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 accompanies the field experience. Repeatable for a total of 6 credits. Prerequisite: 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 presented in brief case scenarios; students identify the condition. Resource links

are available for in-depth study of each condition. For clinical use, patient education 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 program based on the low back pain guidelines from the Agency for Health Care Policy and Research. Case study format stimulates critical thinking. Linked information gives information needed to make clinical decisions. Prerequisite: senior 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 clinical settings. Students practice history-taking and physical examination, with emphasis on differentiation, 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 administration of psychopharmacologic medications and education of clients. Prerequisite: admission to graduate program.

**NURS 733. Diabetes Mellitus Nursing (3).** Exploration of clinical theories; identifies and studies appropriate nursing systems for clients with diabetes mellitus. Emphasizes attaining and maintaining optimal levels of functioning and the psychological adjustment of the client and family to a potentially devastating disease. Open to non-nursing majors.

**NURS 734. Diabetes Mellitus Nursing Practicum (3).** An intensive clinical experience; the student studies, designs and implements nursing systems for individuals or groups in the area of diabetes mellitus nursing management. A weekly one-hour seminar accompanies the practicum. Open to non-nursing majors.

**NURS 750. Workshops in Nursing (1–4).** 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 (3).** 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 educator across the scope of learning environments are investigated: nursing education, in-service and patients/clients/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 students or undergraduate nursing students with senior standing.

**NURS 775. Health Care Information Systems (3).** Examines information systems as they relate to health care. Analyzes information systems in clinical management, administration, education and research. Emphasizes issues surrounding information systems and hands-on experience with selected health care information management exercises.

**NURS 776. 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 undertaking small-scale development efforts. Pre- or corequisite: NURS 775.

**NURS 781. Pathophysiology for Acute and Critical Care (3).** Examines pathophysiological concepts relevant to acute and critical care nursing practice. Explores the scientific knowledge base for selected clinical problems in acute care. Emphasizes pathophysiological mechanisms of disease and the relevance to clinical decision making. Prerequisite: admission to graduate program.

**NURS 783. Assessment in Psychiatric/Mental Health Nursing (3).** For the student preparing for advanced practice in psychiatric/mental health nursing. Explores current diagnostic issues in psychiatric nursing practice. Emphasizes application of current biological, psychological, social and other relevant theories and knowledge within the nursing and related fields to the assessment and planning of interventions for psychiatric clients. Prerequisite: admission to graduate program.

**NURS 786. Advanced Health Assessment Practicum (2).** A concentrated assessment practicum focusing on application of knowledge from advanced health assessment courses. Students apply history-taking and assessment skills in a specified setting. Emphasizes differentiation, interpretation and documentation of normal and abnormal findings. Graded S/U. Prerequisites: NURS 701, 702, departmental consent, 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 relevant to selected pathophysiological states confronted in advanced nursing practice. Provides the basis for the foundation of clinical decisions related to diagnostic tests and the initiation of therapeutic regimens. Age-specific and developmental alterations are correlated with clinical diagnosis and management. Application is made through age-appropriate examples and case studies. Prerequisite: 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 ambulatory setting. Discusses factors such as age-appropriate content related to pharmacokinetics, dosages, expected outcomes and side effects of the drugs. Addresses first line versus second line drugs, alternate 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, problem 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 WSU 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.

## School of Oral Health

### Dental Hygiene (DH)

The School of Oral Health consists of the department of dental hygiene and the advanced education in general dentistry residency program. The School of Oral Health offers degree programs leading to a Bachelor of Science (BS) in dental hygiene, and a postdoctoral certificate in advanced education in general dentistry.

### 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.

|  |                          |
|--|--------------------------|
| Course                                   | .....hrs.                |
| <i>Basic Skills</i>                      |                          |
| ENGL 101                                 | College English I.....3  |
| ENGL 102                                 | College English II.....3 |
| MATH 111 or 112                          | .....3                   |
| COMM 111                                 | Public Speaking.....3    |
| <i>Humanities and Fine Arts</i>          |                          |
| Fine Arts                                | .....3                   |
| Gen. Ed. Intro. course                   | .....3                   |
| Gen. Ed. Intro. course                   | .....3                   |
| Further Study/Issues & Perspectives..... | 3                        |
| <i>Social and Behavioral Sciences</i>    |                          |
| PSY 111                                  | General Psychology.....3 |
| SOC 111                                  | Intro. to SOC.....3      |
| Further Study/Issues & Perspectives..... | 3                        |
| <i>Natural Sciences and Mathematics</i>  |                          |
| CHEM 103                                 | Introductory CHEM.....5  |

|               |  |     |
|---------------|--|-----|
| BIOL 220      | Intro. to Microbiology.....              | 4   |
|               | Further Study/Issues & Perspectives..... | 3   |
|               | <i>Other Prerequisites</i>               |     |
| BIOL 223      | Anatomy & Physiology.....                | 5   |
| HS 301        | Clinical Pharmacology.....               | 3   |
| HS 331        | Prin. of Dietetics & Nutrition.....      | 3   |
| HP 203 or 303 | Medical Terminology.....                 | 2-3 |
| PC 105        | Intro. to Computers & Apps.....          | 3   |
| Elective      | .....                                    | 3   |

### Admission to the entry level baccalaureate degree

Persons interested in the dental hygiene program should direct their inquiries to: Department of Dental Hygiene, 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.

| Course            | .....hrs.                                 |   |
|-------------------|---|---|
| <i>Semester 1</i> |   |   |
| DH 311            | Preclinical Dental Hygiene.....           | 5 |
| DH 317            | Clinical Radiology.....                   | 4 |
| DH 318            | Oral Anatomy, Histology & Embryology..... | 3 |
| DH 319            | Dental Materials.....                     | 3 |
| <i>Semester 2</i> |   |   |
| DH 314            | Intro. to Periodontics.....               | 3 |
| DH 331            | Dental Hygiene Concepts I.....            | 3 |
| DH 332            | Dental Hygiene Clinic I.....              | 3 |
| DH 334            | Intro. to Evidence-Based Pract. ...       | 2 |
| DH 335            | General & Oral Pathology.....             | 3 |
| HS 315            | Head & Neck Anatomy.....                  | 2 |
| <i>Semester 3</i> |   |   |
| DH 333            | Dental Hygiene Clinic II.....             | 2 |
| <i>Semester 4</i> |   |   |
| DH 410            | Community Oral Health Management I.....   | 3 |
| DH 416            | Pain Management.....                      | 2 |
| DH 431            | Dental Hygiene Concepts II.....           | 3 |
| DH 434            | Dental Hygiene Clinic III.....            | 4 |
| <i>Semester 5</i> |   |   |
| DH 407            | Ethics & Jurisprudence.....               | 3 |
| DH 432            | Dental Hygiene Concepts III.....          | 2 |
| DH 435            | Dental Hygiene Clinic IV.....             | 4 |

|        |  |   |
|--------|--|---|
| DH 440 | Community Oral Health Management II..... | 3 |
| DH 470 | Issues in Dental Hygiene.....            | 3 |

### 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.

Students must successfully complete a background check prior to beginning any dental hygiene course.

Information related to special requirements is available to students at Department of Dental Hygiene, Wichita State University, 1845 Fairmount, 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 & math (1) .....                                    | 3-5                     |   |
| Further study or issues and perspectives in natural sciences & math (1).....      | 3-5                     |   |

### Professional Curriculum

| <i>Core:</i>                |  |   |
|-----------------------------|--|---|
| 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                    | Intro. to the U.S. Health Services System..... | 3 |
| <i>Electives (6 hours):</i> |  |   |
| DH 462                      | Special Projects in DH.....                    | 3 |
| DH 481                      | Cooperative Education.....                     | 3 |
| HMCD 308                    | Leadership in Self & Society.....              | 3 |
| CESP 704                    | Intro. to Educational Stats.....               | 3 |
| HS 400                      | Intro. to Pathophysiology.....                 | 4 |

### 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 317. Clinical Radiology (4). 3R; 3L.** Presentation of the theory of radiation production, usage and radiation safety. Development of skills in exposing, processing, mounting, evaluating and interpreting radiographs. Uses laboratory periods to gain proficiency in radiographic techniques.

**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 pre-session. Prerequisite: program consent.

**DH 334. Introduction to Evidence-Based Practice (2).** Cross-listed as NURS 325. Overview of the process of evidence based practice for health care. Emphasizes the discovery and analysis of evidence to support clinical practice. Open to nonmajors. 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. Prerequisites: 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 focuses 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 HMCD 310 or PHS 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 Externship (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.

**DH 470. Issues in Dental Hygiene (3).** Analyzes various professional issues in clinical or community dental hygiene focusing on issues ranging from concerns within the local practice setting to national policy issues. Examines theories and applications uniquely suited to the dental health care delivery system.

**DH 481. Cooperative Education (3).** An independent study course for the registered (licensed) dental hygienist to obtain college credit for work experience when accompanied by an academic endeavor determined by the student in consultation with a faculty adviser. Prerequisites: Associate of Science in dental hygiene or equivalent; enrolled in Bachelor of Science in dental hygiene program.





# Fairmount College of Liberal Arts and Sciences

**Ronald R. Matson, interim dean**  
200 Lindquist Hall • (316) WSU-6659  
[wichita.edu/las](http://wichita.edu/las)

Charles Koeber, associate dean

Eunice Myers, associate dean

Marche Fleming-Randle, assistant dean

Cheryl Miller, assistant dean

**LAS Advising Center**  
115 Grace Wilkie Hall  
(316) WSU-3700  
[wichita.edu/advising](http://wichita.edu/advising)

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.

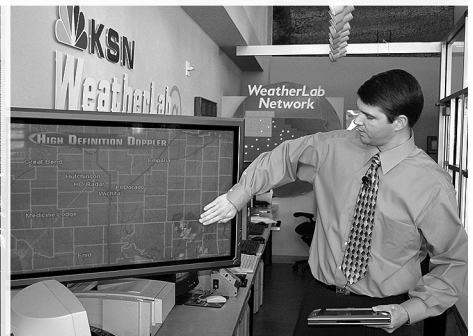
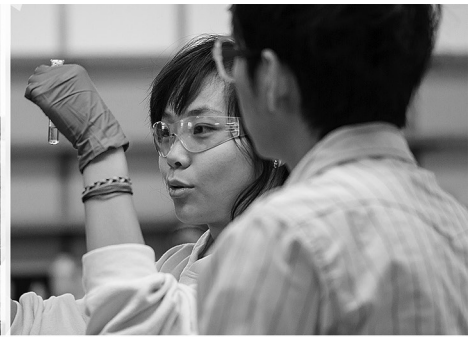
Fairmount College offers undergraduate majors in natural sciences, social sciences, humanities and programs of professional training. An education in these disciplines helps students develop knowledge and appreciation of our physical and biological world, the arts and different cultures; and an awareness 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 and Certificates Offered

### Undergraduate

The Associate of Arts, Bachelor of Arts, Bachelor of Science and Bachelor of General Studies degrees are conferred by Fairmount College of Liberal Arts and Sciences. Each baccalaureate degree requires the completion of a minimum of 124 credit hours, the attainment of an overall grade point average of 2.000 including transfer work, a grade point average of 2.000 in the major and minor fields of study, and a 2.000 WSU grade point average. Some majors may require a higher GPA.

**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



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Education 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 and Spanish), philosophy, physics, political science, psychology, social work, sociology and women's studies. Concentrations in communication sciences and disorders, ethnic studies, geography, German and religion may be designed with the Bachelor of Arts or the Bachelor of General Studies degrees.

**The Bachelor of Science** is available in biological sciences, chemistry, criminal justice, forensic sciences, 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, 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), Strategic Communication (undergraduate)—Elliott School of Communication

Asian Studies—Interdisciplinary Liberal Arts and Sciences

Film Studies—English, Interdisciplinary  
Great Plains Studies (graduate and undergraduate)—Interdisciplinary Liberal Arts and Sciences  
Medieval and Renaissance Studies—English, Interdisciplinary

Spanish for the Professions—Modern and Classical Languages

Community Psychology—Psychology  
Nonprofit Management (graduate)—Hugo Wall School of Urban and Public Affairs

## Policies

### Admission

Students are admitted to Fairmount College of Liberal Arts and Sciences upon meeting the general admission requirements for Wichita State University and declaring one of three categories:

1. *Degree bound.* These students enter with the intention of pursuing one of the degree programs offered by Fairmount College;
2. *Degree bound as an exploratory student.* These students have not yet decided on a major area of study when they enter WSU; and
3. *Nondegree bound.* These students enroll in classes or programs for purposes other than achieving a degree.

See university admissions details in the Admissions section of this catalog.

### 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.

Students who have been dismissed for academic reasons may seek readmission to the university by filing a written petition with Fairmount College's Admissions and Exceptions Committee. Cases for readmission must be developed by the student after consultation with an adviser. The petition is then considered by the Fairmount College committee and forwarded to the university's committee for final action.

Because advising and advanced planning require careful attention and much time, students must meet the published deadlines to have their petitions considered.

### Enrollment Limits

Students in good academic standing may enroll for a maximum of 19 hours during fall and spring semesters and a maximum of 12 hours during the summer session. Students wishing to enroll beyond these limits must request approval from an academic adviser in the LAS Advising Center (LASAC).

### Academic Advising

Academic advising is an ongoing educational partnership between the student and the academic adviser. Advising promotes student academic success, supports diverse and equitable educational experiences, encourages students to become self-directed learners, responsible decision makers and knowledgeable global citizens. Academic advisers assist students in clarifying self-defined academic goals, selecting a major, understanding academic procedures, and using campus resources to their advantage. The Liberal Arts and Sciences Advising Center (LASAC) assists students who are degree bound, exploratory or nondegree bound.

### Degree-Bound Students in Fairmount College Programs

Degree-bound students who have declared interest in any of Fairmount College's programs receive advising from department faculty. Students with early and sustained involvement in their major departments develop methods of inquiry, peer and mentoring relationships, and intellectual and social perspectives which deepen and enrich their Fairmount College experience. Students with interdisciplinary or preprofessional interests also benefit from contact with faculty advisers qualified to discuss educational programs leading to the exercise of civic and social responsibility, enjoyment of intellectual pursuits, and realization of career fulfillment.

### Degree-Bound Exploratory Students

LASAC advisers help degree-bound exploratory students make academic choices that allow for flexibility 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. 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. General education questions are

answered by LASAC academic advisers. Advice on the major is given by the main department.

### Nondegree-Bound Students

The nondegree-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 nondegree 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.

Two documents are required of all students graduating with a degree from Liberal Arts and Sciences: the Senior Form and the online Application for Degree.

**The Senior Form** is a written list of all remaining requirements for graduation. Students begin in the LAS Advising Center in 115 Grace Wilkie Hall. The student and the academic adviser complete the general education portion of the form. The student takes the form to the faculty adviser for their major. The faculty adviser completes the academic major portion of the form. The student is responsible for returning that form to the LAS Advising Office.

**The online Application for Degree (AFD)** is the only document that alerts the college of the semester and year in which the students intends to graduate. Students who do not complete this document will not graduate, because the student's name will not appear on the graduation list generated by the AFD.

**How to complete the AFD:** The online application for degree link can be found in the *myWSU* portal. Students are able to complete the application for a bachelor's degree once they have earned 80 hours. Students may apply for a graduation date for the current semester, or for any of the three semesters beyond the current semester. The correct graduation date is determined by the length of time needed to complete remaining requirements as listed on the Senior Form.

Students who wish to have their names listed in the official commencement program must complete both the Senior Form and the online Application for Degree by March 1, for a May graduation, and October 1, for a December graduation.

Additional 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.

Additional BGS requirements are listed under Section XII. BGS: Area of Concentration, on page 147.

## 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 Academics section of the catalog, or [wichita.edu/coop](http://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. (Also see page 29.)

## 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 Mathematics  
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 (excluding basic skills), English (excluding 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:** anthropology, criminal justice, economics, ethnic studies, geography, political science, psychology, social work, sociology, other approved discipline for an issues and perspectives class.

Other *Social and Behavioral Sciences* for elective use: aging studies.

\*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 (count as biology); GEOG 235 (counts 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 may successfully complete 111 and 112, plus 5 additional hours in one foreign language, or 111 and 112 in two foreign languages;
2. Other foreign language experience, or high school foreign language study at the rate of one high school unit for each college semester, may apply toward the required proficiency;
3. Students who have completed three or more years of one language in high school may fulfill the foreign language requirement by successfully

completing a 3-hour intermediate-level class in the same language;

4. Students 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

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 minimum 2.000 grade point average is required in the major.
2. No more than 6 hours from the major may be used to satisfy Fairmount College distribution requirements.
3. Of the 45 hours of upper-division credit required for each degree, a minimum of 12 upper-division hours are required in the major or area of concentration.
4. No more than 45 hours in the major may be used for graduation with a BA degree, and

no more than 50 hours in the major may be used for graduation with a BS degree.

5. The same hours cannot be used to satisfy requirements for two or more LAS 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.

For the purposes of the field major, LAS courses can include the academic majors and disciplines housed historically in the College of Liberal Arts and Sciences, including aging studies (AGE) (formerly gerontology), art history (ARTH), communication sciences and disorders (CSD), computer science (CS), economics (ECON), music composition (MUSC), and theatre (THEA).

All 18 hours in the primary department of interest must be courses approved for the major or minor as defined for that department in the Undergraduate Catalog.

**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 prepares 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.

**Global Studies.** In recent years the world has rapidly become more closely connected and interdependent in virtually every facet of life. As a result, traditional American and Western academic perspectives alone are no longer sufficient to make sense of complex global realities. Therefore, many scholars have found it necessary to construct and include a global perspective in their teaching, and many students have sought to gain this perspective in their learning.

The global studies field major is an interdisciplinary program which allows students to pursue their course of study in a broad, complex and interconnected way, and helps them discover the area of global studies which most interests them (e.g., literature, health, business, environment). This major provides direction for those interested in pursuing a further graduate course of study or for those who will search for employment. It will also prepare students to become well-informed global citizens.

Students choosing the global studies field major will select from an approved list of courses that have a global focus. These courses are offered on the basis of two criteria: either they address their subjects from a world or global perspective, or they address geographic areas of the world outside of the United States. The major consists of 36 hours, 18 of which must be selected from a set of core courses, and the other 18 from a set of elective courses. Each student will conclude the requirements of the major by completing a final project, such as an internship or research paper, which must be approved by their adviser. Students interested in pursuing this major should contact the global studies field major adviser in the department of anthropology.

**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, nonprofit 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](http://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, 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 (BGS) degree allows students to design a major plan of study crossing departmental or even college lines. The BGS degree allows generalists, preprofessionals or nontraditional career students greater flexibility in planning their academic major plans.

For the purposes of the BGS major, LAS courses can include the academic majors and disciplines housed historically in the College of Liberal Arts and Sciences, including aging studies (AGE) (formerly gerontology), art history (ARTH), communication sciences and disorders (CSD), computer science (CS), economics (ECON), music composition (MUSC), and theatre (THEA).

With the assistance of the adviser in the department of primary interest, each student develops a major plan of study consisting of a minimum of 33 hours, divided into 3 areas. The primary and secondary areas must be in LAS departments. The tertiary area may cross departmental or college lines or be thematically or occupationally related. The primary area will consist of 15 to 21 hours. The remaining 12 to 18 hours must be divided

between two other departments. At least 6 hours must be in each of the secondary and tertiary areas. All courses used in the primary area must be courses approved for an academic major or minor as defined by that academic department in the Undergraduate Catalog. A minimum of 12 LAS upper-division hours must be included in the major plan.

Additional limits to the minimum hours required for the BGS degree include: no more than 30 hours from one department, no more than 60 hours in one division (humanities, social and behavioral sciences, natural sciences and mathematics), and 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, 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, have completed the general education requirements for the degree, and have earned no more than 20 hours of D grade work. 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 Arts (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 students' Fairmount College experience by offering them an opportunity to appreciate the strength of human cultural and biological history and diversity through socio-cultural, bio-cultural and cultural-historical perspectives to understanding the living world in the framework of its past and present circumstance.

**Major.** A major in anthropology consists of at least 30 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 nonanthropology courses

must be chosen in consultation with the student's anthropology adviser.

### Lower-Division Courses

>ANTH 100. **Modern America: Understanding Diversity (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. The concept of diversity is examined in order to understand multiculturalism in both the campus experience and as an important concept for functioning in a global community.

>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 nonhuman 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 nonhuman 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 nonliterate 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 ethnographic 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 sociocultural 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, morphemics and principles of morphology, and syntax and semantics. Prerequisite: LING 151.

>ANTH 352. **Anthropological Linguistics (3).** *General education further study course.* Provides a learning experience engaging students in a more refined understanding of the linguistic dimensions of human culture through the exploration of the most important methods and theories in linguistics. Students are engaged in case

studies taken from various social and cultural contexts. Covers basic elements of the study of various aspects of language including phonology, morphology, syntax, semantics and pragmatics. Prerequisite: ANTH 102 or a social sciences or humanities introductory course, or instructor's consent.

>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 populations, languages and cultures of nonliterate 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, ethno-historical 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 nonhuman 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. Repeatable up to 6 credit hours. 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 specific 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), 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 WSU 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/Bio-medical 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, 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, 531; PHYS 213.

**Minor in Biological Sciences.** Candidates for the minor in biological sciences must complete four Biology courses including BIOL 210 & 211 and two others chosen from the following alternatives: (1) two from BIOL 418, 419 or 420, or (2) one from BIOL 418, 419 or 420, and one from 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 in 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.

**Nonmajor Courses.** The department of biological sciences offers courses designed primarily to meet the needs of students in other departments. These are listed below as *nonmajor 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.

## Nonmajor 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 107. **The Human Organism Laboratory (1).** 2L. *General education introductory course.* For the non science major. Supplements and reinforces the material covered in BIOL 106 with a laboratory experience. Uses a hands-on approach and covers topics relevant to students and their role in the biosphere. Topics include cell structure, human organ systems, the role of microorganisms in the environment, metabolism, genetics and cancer. Requires no animal dissection. Credit for this course may not be applied toward the requirements for a major or minor in biological sciences. Only one of the following may be taken for credit: 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. *General education introductory course.* For students in allied health fields. Introduces eucaryotic and pro-caryotic 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. *General education introductory course.* 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. Students may receive credit for only one of the following: HS 290 or BIOL 223. 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 AGE 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 203 (no longer offered) and BIOL 211. Students wishing to repeat BIOL 203 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 330. General Microbiology (5).** 3R; 6L. Introduces the structure, function, systematics, ecology and population dynamics of microorganisms emphasizing prokaryotes. Prerequisites: BIOL 204 (no longer offered) or 211, 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 (no longer offered) or 211, 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. Prerequisites: BIOL 204 (no longer offered) or 211, 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 signaling, cell growth and division, cancer, and cellular mechanisms of development. Reviews and demonstrates current techniques and experimental approaches for studying cells. Prerequisites: BIOL 204 (no longer offered) or 211, 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. Offered *Cr/Ncr* only. Prerequisite: applicant and cooperative education position approved by the departmental affairs committee.

**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. *Cr/Ncr* 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. *Cr/Ncr* 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. *Cr/Ncr* 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 (no longer offered) or 211, 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 (no longer offered) or 211, 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 (3).** Evolution, distribution, 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 instructor. Prerequisites: BIOL 204 (no longer offered) or 211, CHEM 212; BIOL 527 is also recommended.

**BIOL 526. Endocrinology (4).** 3R; 3L. The hormonal regulation of bodily functions is considered in representative vertebrate systems, including humans. Students enroll in both lecture and laboratory portions of class. Students earning graduate credit submit a term paper on a topic chosen in consultation with the instructor. Prerequisite: BIOL 204 (no longer offered) or 211, CHEM 212.

**BIOL 527. 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 (no longer offered) or 211, CHEM 212.

**BIOL 528. Parasitology (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 (no longer offered) or 211, CHEM 212.

**BIOL 529. Vertebrate Zoology Lab (2).** Dissection of vertebrates with an emphasis on learning the taxonomy of Kansas families of fishes, Kansas species of amphibians and reptiles, North American orders of birds, and world orders, suborders and families of mammals. Form and function are included. Prerequisites: BIOL 211, CHEM 212. Corequisite: BIOL 524, or instructor's consent.

**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 (no longer offered) or 211, 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 systematics project. Prerequisites: BIOL 204 (no longer offered) or 211, CHEM 212.

**BIOL 534. Human Physiology (3).** An organ systems approach to 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 human physiology chosen in consultation with the instructor. Prerequisites: BIOL 204 (no longer offered) or 211, CHEM 531, or instructor's consent.

**BIOL 535. Human Physiology Laboratory (2).** 4L. An empirical approach to human 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 (no longer offered) or 211, 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 over 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 library/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 nonstatistical 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 (no longer offered) or 211, 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 (no longer offered) or 211, 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 (no longer offered) 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 420. BIOL 526 is strongly recommended.

**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 (no longer offered) or 211, CHEM 212 and instructor's consent.

**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 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 (no longer offered) 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. Cr/NCr 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 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. Includes a detailed study of the transport, distribution, transformation and ultimate fate of various environmentally important chemicals. Class is for undergraduate or graduate students interested in advanced training in toxicology. Prerequisites: BIOL 418 or equivalent, 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 is 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 presentations(s) and/or written paper(s). Topics are developed by individual faculty members and reflect current topics, in-depth analysis and biological specialties. 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).** 2R; 6L. Introduces upper-level undergraduate and graduate students to molecular biology techniques. The methodology primarily involves the manipulation of DNA and the expression of genetic material in prokaryotic and eukaryotic systems. Prerequisite: BIOL 419 or 420.

**BIOL 767. Mechanisms of Hormone Action (3).** The mechanism of action of several hormones is described and used to illustrate the major intracellular signal transduction pathways. Includes gonadotropin-releasing hormone, the glycoprotein hormones, luteinizing hormone, follicle-stimulating hormone, chorionic 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 physicochemical nature of genetic material and the mechanisms of genetic regulation of metabolism. Students earning graduate credit produce a term paper and deliver a class seminar based on the technical literature on

a topic chosen in consultation with the instructor. Prerequisite: BIOL 419.

**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 WSU Graduate Catalog for courses numbered 800 and above.

## Chemistry (CHEM)

The chemistry department offers a broad and flexible curriculum leading to a variety of degrees and options: Bachelor of Science (BS) in chemistry, Bachelor of Science (BS) in chemistry—pre-medicine, 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, 545, 546, 547, 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 CHEM 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, 545, 546, 547, 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, pre-dental, preveterinary, prepharmacy, pre-optometry or other pre-professional programs may desire this option for which the following courses are required: CHEM 211, 212, 523, 531, 532, 690, 662, 663 and their necessary prerequisites; two courses taken from CHEM 514, 524 and 545; MATH 242 and 243; a one-year sequence of physics courses above 200; 6 additional credit hours of chemistry courses numbered above 500; BIOL 210, 211 and two advanced biology course selected from BIOL 330, 419, 420, 526, 527, 528, 540, 590, 710, 730, 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.

### Bachelor of Arts in Chemistry

This degree requires CHEM 211, 212, 523, 524, 531, 532, 545, 546, 547 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 with one of the following three alternatives: (1) replace CHEM 524 with 514 and 661; or (2) replace CHEM 547 and either CHEM 545 or 546 with 514 and 661; or (3) replace CHEM 524, 547 and either 545 or 546 with CHEM 662, 663 and 664.

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, 545, 547, 615 and 616 and 6 hours of professional development courses. Students planning to become teachers of chemistry should complete the Bachelor of Arts program.

### Biochemistry Field Major

The departments of biological sciences and chemistry participate jointly in this program. Students selecting this major should seek the advice of one of the departmental chairpersons as early as possible. The required courses are: BIOL 210, 211, 419 and 420; CHEM 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, 523, 531, 532, 514 or 524, and either 661 or both 662 and 663; 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, 545 and 546. A 2.000 GPA is required for all chemistry courses taken.

**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

| Course                                    | hrs.   |
|---|--------|
| CHEM 211, 212.....                        | 10     |
| CHEM 514 .....                            | 3      |
| CHEM 531, 532.....                        | 10     |
| CHEM 523, 524.....                        | 8      |
| CHEM 545, 546.....                        | 6      |
| CHEM 547 .....                            | 2      |
| CHEM 615 .....                            | 3      |
| CHEM 616 .....                            | 2      |
| 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              |                                | hrs.      |
|-----------------------|--------------------------------|-----------|
| First semester .....  |                                |           |
| CHEM 211              | General Chemistry I .....      | 5         |
| MATH 112              | Precalculus Mathematics* ..... | 5         |
| ENGL 101              | College English I .....        | 3         |
| COMM 111              | Public Speaking .....          | 3         |
| Total .....           |                                | (16 hrs.) |
| Second semester ..... |                                | hrs.      |
| CHEM 212              | General Chemistry II.....      | 5         |
| MATH 242              | Calculus I.....                | 5         |
| ENGL 102              | College English II.....        | 3         |
| HIST 131 or 132       | History of the U.S.....        | 3         |
| Total .....           |                                | (16 hrs.) |

\*Not needed if two years of high school algebra, one year of high school geometry and one-half year of high school trigonometry taken.

|  |             |
|--|-------------|
| <i>Sophomore</i>                                 |             |
| <i>First semester</i> .....                      | <i>hrs.</i> |
| CHEM 531 Organic Chemistry I* .....              | 5           |
| MATH 243 Calculus II .....                       | 5           |
| PHYS 313 Physics for Scientists I .....          | 4           |
| ENGL 230, 232 or other, English Literature ..... | 3           |
| <i>Total</i> .....                               | (17 hrs.)   |

\*CHEM 531, 514 and 523 all have CHEM 212 as a prerequisite and can be taken in any order.

|   |             |
|---|-------------|
| <i>Second semester</i> .....  | <i>hrs.</i> |
| CHEM 532 Organic Chemistry II .....                                 | 5           |
| PHYS 314 Physics for Scientists II .....                            | 4           |
| PHYS 315 University Physics Lab I .....                             | 1           |
| MATH 344 Calculus III .....   | 3           |
| A general education introductory course<br>in social sciences ..... | 3           |
| <i>Total</i> .....  | (16 hrs.)   |

|   |             |
|---|-------------|
| <i>Junior</i>   |             |
| <i>First semester</i> .....   | <i>hrs.</i> |
| CHEM 514 Inorganic Chemistry .....  | 3           |
| CHEM 523 Analytical Chemistry .....   | 4           |
| BIOL 210 General Biology I .....  | 4           |
| A general education introductory course in<br>fine arts .....                     | 3           |
| A general education introductory course in a<br>second social sciences dept. .... | 3           |
| <i>Total</i> .....  | (17 hrs.)   |

|  |             |
|--|-------------|
| <i>Second semester</i> .....   | <i>hrs.</i> |
| CHEM 524 Instrumental Methods of<br>Chemical Analysis .....  | 4           |
| CHEM 661 Introductory Biochemistry .....   | 3           |
| Professional electives .....   | 2           |
| PHYS 316 University Physics Lab II .....   | 1           |
| A general education further study or issues<br>and perspectives course in<br>history, English or fine arts ..... | 3           |
| <i>Total</i> .....   | (13 hrs.)   |

|  |             |
|--|-------------|
| <i>Senior</i>  |             |
| <i>First semester</i> .....  | <i>hrs.</i> |
| CHEM 545 Physical Chemistry I .....  | 3           |
| CHEM 547 Physical Chemistry Laboratory .....   | 2           |
| Professional electives .....   | 2           |
| CHEM 690 Independent Study & Research .....  | 2           |
| A general education further study or issues<br>and perspectives course in social<br>sciences ..... | 3           |
| Electives .....  | 3           |
| <i>Total</i> .....   | (15 hrs.)   |

|   |             |
|---|-------------|
| <i>Second semester</i> .....                | <i>hrs.</i> |
| CHEM 546 Physical Chemistry II .....        | 3           |
| CHEM 615 Advanced Inorganic Chemistry ..... | 3           |
| CHEM 616 Inorganic Chemistry Lab .....      | 2           |
| Electives .....                             | 6           |
| <i>Total</i> .....                          | (14 hrs.)   |

### Bachelor of Science in Chemistry—Premedicine

|                     |             |
|---------------------|-------------|
| <i>Course</i> ..... | <i>hrs.</i> |
| CHEM 211, 212 ..... | 10          |
| CHEM 523 .....      | 4           |
| CHEM 531, 532 ..... | 10          |
| CHEM 690 .....      | 2           |

|  |      |
|--|------|
| CHEM 662, 663 .....                                | 6    |
| CHEM 514, 524, 545 (two courses) .....             | 6–7  |
| CHEM 500–800 (see description) .....               | 6    |
| MATH 242, 243 .....                                | 10   |
| Physics courses above 200 (one yr. sequence) ..... | 10   |
| BIOL 210, 211 .....                                | 8    |
| Adv. BIOL (see description) .....                  | 6–10 |

### Bachelor of Arts

|                               |             |
|-------------------------------|-------------|
| <i>Course</i> .....           | <i>hrs.</i> |
| CHEM 211, 212 .....           | 10          |
| CHEM 531, 532 .....           | 10          |
| CHEM 523, 524** .....         | 8           |
| CHEM 545**, 546 .....         | 6           |
| CHEM 547** .....              | 2           |
| PHYS 313, 314, 315, 316 ..... | 10          |
| MATH 112, 242, 243, 344 ..... | 18          |

\*\*Combinations of CHEM 514, 661, 662, 663, and 664 may be substituted for CHEM 524, 545, 546 and 547 (see description).

### Biochemistry Field Major

|                                       |             |
|---------------------------------------|-------------|
| <i>Course</i> .....                   | <i>hrs.</i> |
| CHEM 211, 212 .....                   | 10          |
| CHEM 523 .....                        | 4           |
| CHEM 531, 532 .....                   | 10          |
| CHEM 662, 663 .....                   | 6           |
| CHEM 664 .....                        | 3           |
| CHEM 666, or BIOL 666 .....           | 3           |
| CHEM (BIOL) 669 (two semesters) ..... | 4           |
| BIOL 210, 211 .....                   | 8           |
| BIOL 419 .....                        | 4           |
| BIOL 420 .....                        | 4           |
| MATH 112 (or 111 and 123) .....       | 5–6         |
| PHYS 213, 214 .....                   | 10          |
| Biochemistry electives .....          | 21          |

### Chemistry/Business Field Major

|                                      |             |
|--------------------------------------|-------------|
| <i>Course</i> .....                  | <i>hrs.</i> |
| CHEM 211, 212 .....                  | 10          |
| CHEM 523 .....                       | 4           |
| CHEM 514 or 524 .....                | 3–4         |
| CHEM 531, 532 .....                  | 10          |
| CHEM 661 (or both 662 and 663) ..... | 3–6         |
| MATH 144 or 242 .....                | 3–5         |
| ACCT 210, 220 .....                  | 6           |
| ECON 201, 202 .....                  | 6           |
| BLAW 431* .....                      | 3           |
| FIN 340* .....                       | 3           |
| MGMT 360* .....                      | 3           |
| MKT 300*, 405*, 608* .....           | 9           |

\*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 higher than C-.

### 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/N/Cr 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, systematics 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 grade higher than C-. 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 grade higher than C-.

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 grade higher than C-. 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. Credit is not allowed for both CHEM 531 and 535. Prerequisite: CHEM 212 with a grade higher than C-.

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. Credit is not allowed for both CHEM 532 and 536. Prerequisite: CHEM 531 with a grade higher than C-.

CHEM 533. **Elementary Organic Chemistry (3).** A one semester survey of organic chemistry, examining various classes of organic compounds, organic reactions and reaction mechanisms. The goal of the course is to establish an understanding of the relationship between structure and reactivity, with particular emphasis on the importance of organic chemistry to the health sciences and bioengineering. Credit is not allowed for both CHEM 533 and 531. This course does not meet the needs of chemistry majors or premed students. Prerequisite: CHEM 212 with a grade higher than C-.

CHEM 535. **Organic Chemistry I (3).** Introduction to the study of carbon compounds emphasizing reaction mechanisms, stereochemistry and spectrographic analysis. Credit is not allowed for both CHEM 535 and 531. This course does not include a lab, is open only to bioengineering majors and does not meet the needs of chemistry majors or premed students. Prerequisites: must be a bioengineering major and have completed CHEM 212 with a grade higher than C-.

CHEM 536. **Organic Chemistry II (3).** Continuation of CHEM 535 emphasizing the structure and reactions of principal functional groups and compounds of biological interest. Credit is not allowed for both CHEM 536 and 532. This course does not include a lab, is open only to bioengineering majors and does not meet the needs of chemistry majors or premed students. Prerequisites: must be a bioengineering major and have completed CHEM 531 or 535 with a grade higher than C-.

CHEM 545. **Physical Chemistry I (3).** Introduction to the fundamentals of thermodynamics with the goal of understanding the driving forces behind chemical and physical changes and equilibria. Covers the laws of thermodynamics and explores concepts involving work, heat and simple mechanical processes. Helmholtz and Gibbs energy are introduced as thermodynamic indicators of spontaneity/equilibria. The last portion of the course applies these concepts to the study of phase changes, chemical equilibria, ideal and non-ideal solutions, electrolytes and chemical kinetics. Replaces CHEM 548. Prerequisites: CHEM 212 with a grade higher than C-, one year of college physics, MATH 344 or its equivalent.

CHEM 546. **Physical Chemistry II (3).** Covers elementary quantum mechanics and its applications to chemistry. Begins with a historical comparison between classical and quantum mechanics, then builds from the postulates of quantum mechanics to explore the Schrödinger equation and its use in solving problems involving particles, rotating bodies and vibrations. Special emphasis on spectroscopy and approximation methods relevant to chemistry. Prerequisites: CHEM 212 with a grade higher

than C-, one year of college physics, and MATH 344 or its equivalent.

CHEM 547. **Physical Chemistry Laboratory (2). 6L.** Lab fee. Laboratory experiments and exercises that reinforce physical chemistry concepts of thermodynamics, equilibrium, spectroscopy and error analysis. Students gain practical, hands-on experience with computerized data acquisition and learn computational techniques for data reduction and analysis. Pre- or corequisites: CHEM 545, 546.

CHEM 605. **Medicinal 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. Prerequisite: CHEM 514. Corequisite: CHEM 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, 533, or 536.

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, spingolipids, sterols, amino acids and proteins; synthesis of porphyrins, amides and polyamines; synthesis and metabolism of purines, pyrimidines 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). 1R; 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 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, CHEM 662, 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. *Cr/NCr* grade only. Prerequisites: BIOL 420, 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 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 715. **Advanced Spectroscopy I (3).** An introduction to  $^1\text{H}$  and  $^{13}\text{C}$  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  $^{13}\text{C}$  NMR interpretation of  $^1\text{H}$  and  $^{13}\text{C}$  NMR spectra. More advanced topics include NOE and protein structural mapping, and multidimensional techniques such as COSY, DEPT, INEPT, molecular motion by NMR, coupling to  $>0$  metal centers, including those with  $<100$  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 mid-infrared 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, biophysical and chemical techniques that are commonly used in the study of biochemical processes are introduced and discussed.

**CHEM 722. Advanced Physical Chemistry (3).** An in-depth overview of the fundamentals of thermodynamics, kinetics, quantum mechanics and statistical mechanics as they apply to chemistry. Special emphasis is placed on solution thermodynamics, kinetics of coupled reactions, statistical mechanics of macromolecules and quantum mechanics as it applies to spectroscopy. Prerequisites: CHEM 546, 547, or the equivalent undergraduate courses in physical chemistry.

**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 identity 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 biochemists. Using commercial molecular orbital software programs such as MOPAC, SPARTAN and GAUSSIAN, students learn to select appropriate "model" computational procedures to predict properties of molecules and reactions. By comparison with experiment, students learn to assess the range of applicability and accuracy of the "model" methods as applied to various categories of chemical systems. Properties considered include energies and structures of molecules, ions and transition states; vibrational frequencies, IR and RAMAN spectra; thermochemical properties, heat of formation, bond and reaction energies, isomerization energy barriers, reaction pathways; molecular orbitals, atomic charges, dipole and multipole moments, ionization potentials, bond orders; orbital energies and photoelectron spectroscopy; excited state properties, singlet and triplet surfaces. Prerequisite: CHEM 546 or equivalent (MATH 344 is necessary).

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

## Communication, Elliott School of (COMM)

The Elliott School of Communication offers an integrated major in communication leading to the Bachelor of Arts (BA) degree. Students can develop a special (open) emphasis that respects their background and experience and is consistent with their educational and professional goals, or choose a structured emphasis in strategic communication, journalism, electronic media or integrated marketing communication.

This comprehensive communication degree has three distinguishing characteristics:

1. It is interdisciplinary in nature, reflecting the contemporary belief that all communication media are engaged in essentially the same functions (gathering information and creating and disseminating messages) and that the present-day communication professional must be schooled in the basic skills—writing, speaking and visual communication—and must develop the ability to plan, organize, evaluate and think strategically. Founded on the principle that communication specialists should also be communication generalists, this degree program combines disciplinary strengths in an inter-disciplinary matrix.

2. It is consistent with the mission of Wichita State University to offer programs that are responsive to the needs of the urban community that the university serves. The Kansas communication industry has its focus in Wichita, the major media center of the state.

3. Its location allows the program and its students to take full advantage of the communication opportunities afforded by the largest city in

Kansas. The region of the state served by WSU includes one public and four commercial television stations, more than 15 radio stations, nine daily and 32 weekly newspapers, more than 25 advertising agencies, and a range of international, national, regional and local industries, businesses, and public agencies, many with substantial communication operations. This setting allows students to combine academic and professional interests in a program that matches concept with example, education with experience.

## Degree Requirements

**Major.** Students majoring in communication must maintain a 2.500 grade point average (overall and in the major), complete a minimum of 40 credit hours in communication, including 23 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, 306, 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. **Electronic Media:** COMM 303, 304, 422, 604, 609 and 3 hours of upper-division communication elective credit.

2. **Journalism:** COMM 401, 500, 510, 512, 622, 637; one course from 310, 555, 604; and 4 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, 405.

4. **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).

5. **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 junior year or upon completion of 18 credit hours in the major.

**Minor.** A minor in communication consists of two courses from the communication core plus at least 12 hours of electives in communication chosen with the approval of a faculty 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 is also available to communication students through the graphic design department in fine arts. The minor consists of a minimum of 15 hours in graphic design courses. After completing an introductory sequence (ARTG 216, 234 and 235) and one upper-division course (ARTG 490) within the graphic design curriculum, the student selects an additional course from a select list (including ARTG 232, Digital Photography Studio I; ARTG 316, Typography II; ARTG 490 Graphic Design Applications; ARTG 530O, Basic Letterpress; or a course in art and design chosen in consultation with an adviser).

**Field Majors.** Students seeking a field major may elect either an 18-hour concentration in communication (as the major area of study) or a 9-hour concentration in communication (as one of two allied departments taken in addition to the major area of study). Some or all of the upper-division coursework may be in the communication core courses.

**Bachelor of General Studies.** Students seeking a BGS degree may elect either a 15- to 21-hour concentration in communication (as the focal or primary concentration) or a 6- to 12-hour concentration (as one of two secondary concentrations taken in addition to the primary concentration). Some or all of the upper-division coursework may be in the communication core courses.

**Certificate in Strategic Communication.** This certificate program is designed for supervisors, managers and other professionals who interact with employees and coworkers. The six courses (18 hours) offered in this program concentrate on applied communication, a key component of successful management. These are standard college classes offering practical tools for professionals. Many are offered in the evenings, on weekends, or in condensed formats. The certificate program requires successful completion of the following courses: COMM 302, 312, 325, 328, 360 and 650. COMM 111, Public Speaking, or the equivalent is a prerequisite for the certificate program.

## Admission Requirements

Students planning to pursue a major in communication must make formal application for admission to major status. To be admitted, applicants must be students in Fairmount College; have an overall grade point average of 2.500 or better; pass

a standardized departmental English proficiency test (the Grammar, Spelling and Punctuation test, or GSP); and file an Application for Admission to Major Status form with the Elliott School of Communication. Additional information regarding the application process and procedures is available from the main office of the Elliott School, 102 EH.

## 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 130. Communication and Society (3).** Introduces the functions, processes and effects of individual and mass communication in American society. Explores economic, social and governmental impacts of such communication. Includes a survey of the media and communication industry.

**COMM 301. Writing for the Mass Audience (3).** A hands-on introduction to writing for the mass audience, including print and broadcast journalism, advertising and public relations. In this survey-style course, students become acquainted with various news and promotional

writing techniques and formats, develop reporting and interviewing skills, and learn to apply media judgment and ethics. Course is a prerequisite to many specialized Elliott School courses. Prerequisites: grade of C or better in ENGL 101, 102, COMM 130; and pass the department's Grammar, Spelling and Punctuation (GSP) exam.

**COMM 305. Visual Technologies (2).** Examines the importance and meaning of visual symbols in modern society. Explores the methods by which visual images inform, educate and persuade readers.

**COMM 306. Introduction to Multimedia (2).** Examines appropriate multimedia formats for telling stories and presenting information. Focuses on understanding effective publication of communication via audio, video and web.

**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. Prerequisite: 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/NCr. 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, pomography 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. An honors section of this course is available. (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 hours credit. May not be counted toward a major. Prerequisite: departmental consent.

COMM 220. **Introduction to Film Studies (3).** Emphasizes the nature and function of film as a mode of communication with attention to film theory and technical criticism. Selected films are shown in class.

>COMM 221. **Oral Interpretation (3).** *General education further study course.* Cross-listed as THEA 221. Develops the mental, vocal and analytical techniques essential to the oral interpretation of literature.

COMM 222. **Improving Voice and Diction (3).** Cross-listed as THEA 222. For students wishing to improve their speaking voices and gain greater control over their pronunciation of spoken English. Course is performance oriented, however, the anatomy of the vocal mechanism and the International Phonetic Alphabet are studied for practical application in the improvement of voice and diction.

COMM 260. **Seminar in Communication (1-3).** Special seminars dealing with current problems, issues or interests in various areas of communication. For the introductory student in communication. Repeatable for credit in different topics only.

### Upper-Division Courses

>COMM 302. **Interpersonal Communication (3).** *General education further study course.* Develops an awareness of the elements of interpersonal communication and aids the student in establishing more meaningful and

effective interpersonal relationships, both personally and professionally.

COMM 303. **Audio Production (3).** Production and direction of audio programs. Hands-on use of all standard audio production equipment to learn techniques of sound blending and reproduction.

COMM 304. **Studio Video Production (3).** 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 Photojournalism (2).** Lab fee. Basic photographic theory and technique emphasizing aspects of importance to journalists, writers and editors. Students take, develop and prepare pictures for publication. Prerequisite: COMM 301.

>COMM 311. **Persuasion (3).** *General education further study course.* Explores the history, development and manifestation of persuasive techniques through the study and/or creation of persuasive messages in speeches, mass media, advertising, politics and organizations. The student becomes a better user and critic of persuasive messages and strategies. Prerequisite: COMM 111.

>COMM 312. **Nonverbal Communication (3).** *General education further study course.* 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 issues and perspectives 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 Photojournalism (3).** 3R; 3L. Lab fee. Covering photographic assignments for the campus newspaper and other publications, under the overall supervision of a journalism instructor. Prerequisite: COMM 310.

COMM 360. **Applied Communication Strategies (3).** Surveys communication strategies as applied in interpersonal/organizational and rhetorical/political settings. Examines the connection between communication and technology, explores strategies for communication

criticism and identifies communication strategies relevant to issues such as human relations, ethical decision making, freedom of speech and political rhetoric. Prerequisite: COMM 130 or instructor's consent.

COMM 401. **Reporting the News (3).** Principles of reporting, interviewing and multimedia writing, emphasizing both print and broadcast storytelling techniques. Prerequisites: COMM 301 with a C or better, COMM 305, 306.

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 News and Feature Writing (3).** 1R; 4L. Focuses on journalistic techniques for reporting and writing the more complex and important types of news and feature stories. Students work in various forms of traditional and emerging journalism. Emphasizes creating comprehensive content by integrating print, broadcast, Web, social media and other delivery methods. Prerequisites: junior standing, COMM 301 with a C or better, and COMM 401.

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 (2).** Selection, evaluation and preparation of copy and pictures for publication. Covers copy editing, rewriting, headline and caption writing. 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 130 or instructor's consent.

COMM 512. **Principles of Video Production (2).** Examines the concepts and technology necessary for effective production of video communication. Topics include camera operation, video editing and the role

of light, sound and sequencing in video production. Prerequisite: COMM 306.

**COMM 525. Advertising Copywriting (3).** Detailed practice at writing various kinds of advertising copy, including print and broadcast forms. Emphasizes terse, precise writing that evokes response sought by advertiser. Prerequisites: COMM 324, 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, junior standing.

**COMM 555. News and Information Design (2).** Examines contemporary theories of publication layout and the visual presentation of quantitative information. Students investigate methods for combining type, graphics and photographs to convey information and tell stories. Replaced COMM 662C. Prerequisites: COMM 301, 305.

**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, 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 (2).** 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 512.

**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, 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; 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 presentational 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 637. Web Publishing (3).** Senior capstone course in journalism emphasis area. Prepares students to integrate print, broadcast, audio and video news in web-based platform. Graded *Cr/NCr*. Prerequisites: senior standing, COMM 401, 510.

**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 662. 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 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 WSU 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 beginning on page 146.

## Community Affairs, School of

WSU's School of Community Affairs, created in 1999, brings together the departments of criminal justice and ethnic studies 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 CJ 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, 394, 593.

**Prerequisites.** 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.

#### 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, furlough, 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 320. **Criminal Procedure (3).** Criminal procedure in the criminal justice system, including rights of accused, initiation of prosecution, rules of arrest, search and seizure, and the exclusionary rule. Prerequisite: CJ 191.

CJ 341. **Criminalistics and Scientific Crime Detection (3).** Studies the application of the natural sciences to assist law enforcement officers and the criminal justice system. Studies investigative procedures from the crime scene through laboratory analysis to the presentation of evidence in court. 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, instructor's consent.

CJ 391. **Corrections (3).** A survey course. Presents an overview of the role, structure and function of the correctional system in American society. Emphasizes the principal aspects of both institutional and community-based corrections. Pre- or corequisite: CJ 191.

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 AGE 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 451. **International Criminal Justice (3).** Acquaints students with the structural and functional aspects of law enforcement agencies, court systems, correctional facilities, juvenile treatment and crime prevention strategies employed by different societies throughout the world. Incorporates the role of the United Nations in the treatment of offenders and crime prevention. 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/NCr 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 hours credit; 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 members of the community and as employees of a government or social service agency. Employs a case study method, using cases and examples from a wide range of government and nonprofit 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 study 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 are 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 517. Homicide Investigation (3).** Introduction to death investigations from an investigation-oriented perspective. Emphasis is given to crime scene investigations, mechanisms of injury and death and sex-related homicides. Prerequisite: CJ 191.

>**CJ 518. Criminal Justice & Crime in Film (3).** *General education further study 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, 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. Prerequisites: 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. Prerequisites: 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. Prerequisites: 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 intergroup and interorganization relations and dispute resolution techniques. Analyzes case studies. Prerequisites: 15 hours of criminal justice courses including CJ 191, or junior, senior or graduate standing.

>**CJ 652. Juvenile Justice and Social Policy (3).** *General education further study course.* Analyzes decision-making processes in juvenile justice and the content of juvenile law and Supreme Court decisions affecting juvenile justice, and selected problems in juvenile justice. Reviews the juvenile justice reform movement. Covers delinquency prevention and control, and ethical issues associated with juvenile justice. Prerequisite: CJ 191.

**CJ 692. Community Policing (3).** Reviews the various models and strategies of community policing. Examines key concepts such as problem-oriented policing, crime prevention, community relations, empowering the community and the integration of these concepts into community policing. Prerequisites: 15 hours of criminal justice courses including CJ 191, or junior, senior or graduate standing.

**CJ 781. 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. Students work with a faculty member in the formulation and completion of an academic project related to the

field experience. The cooperative education experience must be an integral part of the student's graduate program. Individualized programs must be formulated in consultation with, and approved by, the cooperative education coordinator. Open only to CJ graduate students. Repeatable for credit. No more than 6 hours may be counted toward a plan of study. Enrollment limited to 4 hours per semester. Offered Cr/NCr only.

**CJ 782. Workshop in Criminal Justice (1-6).** Prerequisites: CJ 191, 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, 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 public policy 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 WSU Graduate Catalog for courses numbered 800 and above.

## Ethnic Studies (ETHS)

Ethnic 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. Analyzes the misconceptions about ethnic women that have been generated and perpetuated through the ages, to help people relate better to ethnic women in America and understand their attitudes, sensitivities and emotions.

### Upper-Division Courses

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 contemporary issues facing the Native American focusing on the Osage tribe. 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 conflict, class differentiation and social mobility, the politics of ethnicity, resistance and civil rights movements, the racialization of immigration laws, and transnationalism.

ETHS 350. **Workshop (1–4).** Focuses on the nature and scope of ethnic studies. Emphasizes the unique nature of the experiences of specific American ethnic groups.

>ETHS 360. **Dealing with Diversity (3).** *General education further study course.* Discusses the pluralistic nature of U.S. society. Equips students with skills to live and work within a diverse society, with particular attention on the global community.

>ETHS 361. **Prominent Ethnic People in the Making of America (3).** *General education further study course.* Explores, compares and contrasts ethnic thought and processes for social, economical and political reform. Delves into the social perceptions of prominent American ethnic people as portrayed in popular novels, biographies, autobiographies and rhetoric, etc. Prerequisite: ETHS 100.

ETHS 370. **The Black Experience in America (3).** Examines the status of blacks in American society. Emphasizes the status of blacks in the current and historical social, economic and political framework of this country. Prerequisites: ETHS 100, 210, or instructor's consent.

ETHS 380. **Native American Tribal Systems (3).** An overview of three tribes from different parts of the U.S. Covers historical background, discussion of governments, and information about culture and prominent individuals through lecture, discussion and movies.

ETHS 381. **Special Topics (1–3).** Detailed study of topics in ethnic studies with particular emphasis established according to the instructor's expertise. Prerequisite: ETHS 100.

ETHS 400. **The Black Child (3).** Examines the historical impact of the black experience on black childhood, growth and development. Emphasizes the social, educational and psychological theories, perspectives and interventions applied to black childrearing. Exposes students to good practices at home, school and in urban communities that build a healthy sense of self among children. Focuses on contemporary issues and concerns of parents, professionals and others assisting black children with the transition into adult life. Prerequisites: ETHS 100, 210 or equivalent, or instructor's consent.

ETHS 410. **The African American Male (3).** Examines the impact of racism on the role and lifestyle of the African-American male in American society. Prerequisites: ETHS 100, 210, or instructor's consent.

ETHS 481. **Cooperative Education (1–4).** Allows the student to examine the impact of minority status in the work environment. Examines interpersonal interactions, communication, acceptance in and adjustment to the multicultural work environment. Offered Cr/NCr only. Prerequisite: program 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.

### Courses for Graduate/Undergraduate Credit

>ETHS 512. **Issues in Minority Aging (3).** *General education further study course.* Cross-listed as AGE 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 the specific problems of; and (5) offering practical solutions for the difficulties encountered by ethnic older persons. Prerequisites: ETHS 100, AGE 100, SOC 111, or instructor's consent.

ETHS 540. **Advanced Cross-Cultural Communication (3).** Special topics in human relations. Prerequisite: ETHS 210.

ETHS 545. **Cross-Cultural Communication Theory (3).** An examination of current cross-cultural communication theory and its impact on contemporary cross-cultural issues.

ETHS 579. **Asian Women in Modern History (3).** Cross-listed as HIST 579 and WOMS 579. Examines women's historical and contemporary experiences in Asian America and eight major countries in modern Asia. Covers topics on Asian women's activism in relation to nationalism and women's rights. Investigates Asian women's roles and statuses in the family and society and their educational attainment and contributions to the export-oriented industrialization of the Asia-Pacific region. Examines the intra-regional migration of female guest workers among various countries in Asia. Traces the ways in which the changes in immigration laws during the 20th century affect patterns of Asian women's migration to the United States. Introduces writing that integrates Asian women's lives and Asian American experiences into the discourses on ethnicity, national origin, class, gender and sexual orientation in the United States and the Asia-Pacific region.

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 communication. 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 Forensic Sciences Program Coordinator, Wichita State University, 1845 Fairmount, 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 (12) hours of humanities courses which must include an English literature course, HIST 131 or 132, a fine arts course, and a further study course. (See sample course sequence.)
2. Seven (7) hours of general electives.
3. Seventy-six (76) 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 |
| CHEM 523     | Analytical Chemistry.....   | 4 |
| CHEM 524     | Instrumental Methods of<br>Chemical Analysis.....                 | 4 |
| CHEM 661     | Introductory Biochemistry.....                                    | 3 |
| BIOL 210     | General Biology I.....  | 4 |
| BIOL 211     | General Biology II.....   | 4 |
| BIOL 223     | Human Anatomy & Physiology.....                                   | 5 |
| BIOL 330     | General Microbiology.....   | 5 |
| BIOL 419     | Genetics.....   | 4 |
| BIOL 420     | Molecular Cell Biology.....                                       | 4 |
| ANTH 101/106 | Biol. Anthropology & Lab.....                                     | 4 |
| ANTH 557     | Human Osteology.....  | 3 |
| ANTH 600     | Forensic Anthropology.....  | 3 |
| PSY 111      | General Psychology.....   | 3 |
| PSY 301      | Psychological Statistics.....                                     | 3 |
| PSY 544      | Abnormal Psychology.....  | 3 |
| CJ 315       | Criminal Law.....   | 3 |
| CJ 420       | Criminal Evidence.....  | 3 |
| FS 450       | Forensic Ident. of Marijuana.....                                 | 1 |
| FS 451       | Forensic Ident. of Narcotics<br>and Other Illicit Substances..... | 1 |
| FS 452       | Forensic Toxicology of Alcohol.....                               | 1 |
| FS 453       | Forensic Serology.....  | 1 |
| FS 454       | Fingerprint Development and<br>Analysis.....                      | 1 |

|        |  |   |
|--------|--|---|
| FS 455 | Forensic Arson Analysis.....                       | 1 |
| FS 498 | Seminar in Forensic Sciences<br>Techniques I.....  | 3 |
| FS 499 | Seminar in Forensic Sciences<br>Techniques II..... | 3 |

Sample course sequence

|                       |                          |           |
|-----------------------|--------------------------|-----------|
| <i>First semester</i> | .....                    | (15 hrs.) |
| MATH 111              | College Algebra.....     | 3         |
| ENGL 101              | College English I.....   | 3         |
| BIOL 210              | General Biology I.....   | 4         |
| CHEM 211              | General Chemistry I..... | 5         |

|                        |                           |           |
|------------------------|---------------------------|-----------|
| <i>Second semester</i> | .....                     | (15 hrs.) |
| ENGL 102               | College English II.....   | 3         |
| COMM 111               | Public Speaking.....      | 3         |
| BIOL 211               | General Biology II.....   | 4         |
| CHEM 212               | General Chemistry II..... | 5         |

|                       |   |           |
|-----------------------|---|-----------|
| <i>Third semester</i> | .....   | (18 hrs.) |
| HIST 131              | U.S. History I or<br>HIST 132 U.S. History II.....              | 3         |
| PSY 111               | General Psychology.....   | 3         |
| BIOL 223              | Human Anatomy & Physiology.....                                 | 5         |
| CHEM 531              | Organic Chemistry I.....  | 5         |
| FS 450                | Forensic Ident. of Marijuana.....                               | 1         |
| FS 451                | Forensic Ident. of Narcotics<br>& Other Illicit Substances..... | 1         |

|                           |                                     |           |
|---------------------------|-------------------------------------|-----------|
| <i>Fourth semester</i>    | .....                               | (17 hrs.) |
| Fine Arts course          | .....                               | 3         |
| English Literature course | .....                               | 3         |
| BIOL 330                  | General Microbiology.....           | 5         |
| CHEM 532                  | Organic Chemistry II.....           | 5         |
| FS 452                    | Forensic Toxicology of Alcohol..... | 1         |

|   |                              |           |
|---|------------------------------|-----------|
| <i>Fifth semester</i>                   | .....                        | (16 hrs.) |
| Humanities issues & perspectives course | .....                        | 3         |
| ANTH 101/106                            | Bio. Anthropology & Lab..... | 4         |
| BIOL 419                                | Genetics.....                | 4         |
| CHEM 523                                | Analytical Chemistry.....    | 4         |
| FS 453                                  | Forensic Serology.....       | 1         |

|                       |   |           |
|-----------------------|---|-----------|
| <i>Sixth semester</i> | .....   | (16 hrs.) |
| ANTH 557              | Human Osteology.....                              | 3         |
| BIOL 420              | Molecular Cell Biology.....                       | 4         |
| CHEM 524              | Instrumental Methods of<br>Chemical Analysis..... | 4         |
| CJ 420                | Criminal Evidence.....                            | 3         |
| FS 454                | Fingerprint Development &<br>Analysis.....        | 1         |
| FS 455                | Forensic Arson Analysis.....                      | 1         |

|                         |   |           |
|-------------------------|---|-----------|
| <i>Seventh semester</i> | .....   | (15 hrs.) |
| ANTH 600                | Forensic Anthropology.....                        | 3         |
| CHEM 661                | Introductory Biochemistry.....                    | 3         |
| PSY 301                 | Psychological Statistics.....                     | 3         |
| CJ 315                  | Criminal Law.....                                 | 3         |
| FS 498                  | Seminar in Forensic Sciences<br>Techniques I..... | 3         |

|                        |  |           |
|------------------------|--|-----------|
| <i>Eighth semester</i> | .....  | (13 hrs.) |
| PSY 544                | Abnormal Psychology.....                           | 3         |
| FS 499                 | Seminar in Forensic Sciences<br>Techniques II..... | 3         |
| General electives      | .....  | 7         |

**Upper-Division Courses**

**FS 450. 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 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 colorimetric, 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 pharmacology/toxicology 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. Students gain practical hands-on experience in various chemical detection and recovery techniques for latent fingerprints. Prerequisites: BIOL 210, 211, CHEM 211, 212.

**FS 455. Forensic Arson Analysis (1).** Provides exposure to the detection and classification 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 (3).** Part one of the comprehensive academic-year-long overview of how forensic science techniques influence the criminal investigation process. Students receive instruction from faculty in the chemistry, biological sciences, anthropology and criminal justice departments. Prerequisites: FS 450, 451, 452, 453, 454, 455, CJ 420.

**FS 499. Seminar in Forensic Sciences Techniques II (3).** Part two of the comprehensive overview of how forensic science techniques influence the criminal investigation process. Students receive instruction from faculty in the chemistry, biological sciences, anthropology and criminal justice departments. Prerequisites: FS 450, 451, 452, 453, 454, 455, 498, CJ 420.

**Aging Studies**

The aging studies program is transitioning from the Fairmount College of Liberal Arts and Sciences to the College of Health Professions. The College of Health Professions offers an undergraduate minor in aging studies and the Master of Arts in aging studies as well as instructing all the courses. See Aging Studies on page 130.

The College of Liberal Arts and Sciences will continue to offer undergraduate degrees with a concentration in aging studies through the field

major and Bachelor of General Studies options beginning on page 146. Contact the LAS Advising Center for degree requirements.

## Earth, Environmental and Physical Sciences (EEPS)

The earth, environmental 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, environmental 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; 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 nonstatistical 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, literature research, publication practices and issues of conflict of interest and commitment. Also addresses research misconduct and ethical issues in data acquisition, management, sharing and ownership. May include speakers 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 WSU Graduate Catalog for courses numbered 800 and above.

## Economics

The economics major in Fairmount 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 Fairmount 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 the Barton School of Business. 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 Business Calculus or                  |           |
| MATH 242 Calculus I.....                       | 3 or 5    |
| ECON 201 Principles of Macroeconomics.....     | 3         |
| ECON 202 Principles of Microeconomics.....     | 3         |
| BADM 160 or PC 105.....                        | 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 Fairmount College general education

requirements. ECON 481 may not be used in the economics major.

\* Prerequisite for ECON 232 is either BADM 160 or PC 105.

**Minor.** A minor in economics is available to any student whose major field or area of emphasis is outside of economics. A minor consists of 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.

**Teaching of Economics.** Because Kansas Department of Education regulations governing the licensure of secondary economics teachers are very specific and contain requirements beyond the economics major, students planning to be teachers of economics should contact a secondary social studies adviser in the College of Education for program planning.

**Courses.** Economics courses are listed in the Barton School of Business section of the Undergraduate Catalog.

## English Language and Literature (ENGL)

### English Language and Literature

The English department offers a broad and flexible program of courses that are central to a liberal arts education while offering students the opportunity for personal enrichment and a variety of career possibilities. The department offers degree programs in creative writing, literature and English teaching, as well as a range of courses in linguistics. Students who combine an English major with substantial work in other disciplines will find the knowledge and communication skills acquired in their work in English a valuable asset as they seek entrance into a wide range of fields that include communication, education, government, law and even business.

**Major.** A major consists of 33 hours, with the coursework distributed as follows:

1. Basic Requirements (21 hours)
  - ENGL 310 or 320 or 330
  - ENGL 322 or 323
  - ENGL 360
  - ENGL 361
  - ENGL 362
  - ENGL 363
  - ENGL 590

2. Electives (12 hours): 12 hours of work in other English courses, at least 6 of which must be taken at the 500–600 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.

## 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:

1. Basic Requirements (12 hours)
  - ENGL 322 or 323
  - ENGL 310
  - ENGL 320 or 330
  - English literature class numbered 300 or above
2. 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)
3. Skill Requirements (at least 12 hours) from ENGL 301, 303, 305, 401, 403, 517, 518, 585, 586 (except for ENGL 517 and 518, all of these courses may be repeated once for credit), or university honors English courses (1–3)
4. 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:

1. Language (6 hours)
  - ENGL 315 and 317
2. Composition (3 hours)
  - ENGL 680
3. 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:

1. Language (6 hours)
  - ENGL 315 and 317
2. Composition (3 hours)
  - ENGL 680
3. Literature (24 hours)
  - ENGL 322 or 323
  - ENGL 310
  - ENGL 330
  - ENGL 340 or 515

ENGL 346 or 365  
ENGL 360 or 361  
ENGL 362  
ENGL 363

## Accelerated Bachelor's to Master's Program

The dual/accelerated bachelor's to master's program in English is designed to prepare qualified students for graduate work in English at WSU through a coordinated program leading to both degrees. A student in the program will be allowed to enroll in courses for graduate credit while completing undergraduate degree requirements.

To be considered for admission to the program, the following must be satisfied:

1. An undergraduate GPA of 3.000 overall and 3.500 in English courses;
2. Completion of at least 60 hours of undergraduate study, with at least 18 hours remaining for completion of the undergraduate degree;
3. Completion of four English classes at the 300 level or above; and
4. Positive recommendation from at least one member of the English graduate faculty.

The student should apply for admission to the program during the semester prior to the first semester in which he or she intends to enroll in a course for graduate credit. Students admitted to the dual/accelerated program will be allowed to enroll in courses for graduate credit, including 800-level courses, prior to completing undergraduate degree requirements. At most 9 hours may be joint degree hours—hours taken for graduate credit at the 700 level (or above) that are also applied to the bachelor's degree. If this deviation is requested, joint-degree hours may not include workshop courses, undergraduate core curriculum courses, cooperative education courses, or courses that are prerequisite for the graduate program. A course taken for joint credit must be so identified at the time of enrollment in that course. Where courses specify differing requirements for graduate and undergraduate students (500–799), the student must meet the requirements for graduate students to apply the course to graduate credit. A student who has previously been admitted to a graduate degree program at Wichita State may not be admitted to the dual/accelerated program.

After initial admission, continuation in the program requires a continuing WSU undergraduate cumulative GPA of at least 3.000 and a GPA of at least 3.000 in courses taken for graduate credit. ENGL 700 must be included in the undergraduate program of study for students in the dual/accelerated program. (Note: ENGL 700 is normally offered only during fall semester. Students will be expected to plan accordingly.) Dual/accelerated students should also complete the English MA language requirement before completing the undergraduate degree. In addition to completing the undergraduate degree requirements for their major emphasis (English

literature, creative writing, English education), all dual/accelerated students, regardless of their major emphasis, should complete all four courses in the 360–363 sequence before completing the undergraduate degree.

Upon admission to the dual/accelerated program the student is granted tentative admission to the graduate program in English, pending award of the undergraduate degree. The student should draw up a tentative plan of study in consult with the undergraduate coordinator and/or the graduate coordinator. This plan will be reviewed periodically by the undergraduate coordinator and the graduate coordinator. The student's progress in the program will be reviewed annually with a written progress report placed in the student's departmental file.

### Noncredit 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).** *General education basic skills course.* 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 013 or ENGL 015. Substitutes as 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 011.

>**ENGL 102. College English II (3).** *General education basic skills course.* Emphasizes critical reading, research and argumentation. ENGL 102 should be taken after ENGL 101 in the freshman year. Prerequisite: ENGL 101 with a C or better.

**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, 102 or instructor's consent.

>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.

**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, 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. Course limit: 15. Prerequisite: ENGL 285 with a grade of B or better.

**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, 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 315. **Introduction to English Linguistics (3).** *General education further study course.* Cross-listed as

LING 315. Introduction to linguistic principles, including phonological and grammatical concepts.

**ENGL 316. English Sentence Structure (3).** Cross-listed as LING 316. The basic rules of English syntax, specifically designed for prospective teachers of English but open to all students interested in English sentence structure.

**ENGL 317. History of the English Language (3).** Cross-listed as LING 317. Linguistic and cultural development of English. Specifically designed for prospective English teachers, but open to all interested students. Prerequisite: ENGL 315 or departmental consent.

**ENGL 318. Dialectology (3).** Cross-listed as LING 318. An introduction to the study of regional and social dialects of English. The relationship between language and factors such as socioeconomic class, social networks, sex, nationalism and geography.

>ENGL 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 515 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 southern Canada and from the Mississippi River to the Rocky Mountains. Texts include works by Willa Cather, O.E. Rolvaag and Mari Sandoz, as well as works by contemporary authors including Native Americans. Topics include contemporary environmental issues and the history of exploration and settlement. Prerequisites: ENGL 102 and, for students seeking general education credit, ENGL 230 or 232.

>ENGL 344. **Regional Literature (3).** *General education further study course.* Introduces students to the literature of a particular regional culture or cultures (e.g., literature of the American South, New England regionalism) and examines how that literature relates to a larger national (American or British) tradition. 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, 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, 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, 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, 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. Prerequisite: ENGL 102.

>ENGL 385. **Advanced Composition (3).** *General education further study course.* Advanced introduction to prose composition designed to give students practice in writing within popular, professional, Web-based and academic environments. Examines the writing process focusing on organization, development, style, purpose, written communication strategies, Web-specific demands and audience. Readings and discussions of prose from a range of popular, professional, online and academic publications help students theorize about their own choices as writers. Writing assignments allow students to exercise these options in order to effectively communicate with a variety of audiences and in a variety of media. Replaced ENGL 685 effective fall 2011. Prerequisite: ENGL 102, and ENGL 230 or 232.

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, 102.

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 are critiqued to develop skill in writing, rewriting and polishing literary poetry. Repeatable for credit. Prerequisite: ENGL 303.

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 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 transcendental period, and the rise of Western and regional literatures. Prerequisites: junior standing and one college literature course.

ENGL 504. **American Literature II (3).** Fiction, poetry and drama from the late 19th century to after World

War II. Readings also may include literary criticism and other types of nonfiction prose. Discussions cover themes, topics and literary forms inspired by the social and cultural movements and events of the first half of the 20th century. 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, one college-level literature or film course.

ENGL 509. **Studies in World Literature (3).** Survey of major works by European, Mid-Eastern, Asian, African and/or Central and South American writers. Readings and historical periods studies vary with the instructor. Focuses on the appreciation and understanding of individual works as well as their literary traditions and the cultures that produced them. Prerequisites: junior standing and one college literature course, or instructor's consent.

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 517–518. **Playwriting I and II (3; 3).** *General education further study course.* 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 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 worldview. 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 nonfictional 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 fiction, 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).** Irish and English 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 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 540. **Introduction to Critical Theory (3).** Introduces students to critical literary theory. Topics may include readings in gender theory, historicism, psychoanalytical theory, cultural criticism, Marxism, reader-response theory and deconstruction. May also offer a survey of classical and early-modern critical methodologies from Plato to the formalist schools of the early 20th century. Prerequisites: English 102 and/or instructor's consent.

ENGL 544. **Studies in Regionalism (3).** Provides in-depth study of the literature of a particular region or regions and of how local cultures relate to larger national and transnational cultures. Content varies by instructor, and subjects are announced each semester. Repeatable once for credit with a change in topic. Prerequisites: junior standing and one college literature course.

ENGL 546. **Studies in Ethnic Literature (3).** The study of literature by a specific ethnic group or groups in the United States or Great Britain. Content varies by instructor, and subjects are announced each semester. Fosters an appreciation for the unique literary tradition of a distinct ethnic group or groups and gives students some understanding of the larger historical and national contexts in which that tradition emerged. Repeatable once for credit with a change in topic. Prerequisites: junior standing and one college-level literature course.

ENGL 550. **Independent Reading (1–3).** For majors and nonmajors 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. Prerequisite: departmental consent. Prerequisites: junior standing and one college literature course.

**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 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.

**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 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 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; 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, 102.

**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. Prerequisite: completion of or concurrent enrollment in ENGL 700, or permission of English graduate coordinator.

**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. Prerequisite: completion of or concurrent enrollment in ENGL 700, or permission of English graduate coordinator.

**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. Prerequisite: completion of or concurrent enrollment in ENGL 700, or permission of English graduate coordinator.

**ENGL 709. Seminar in World Literature (3).** Advanced course in literature drawn from the European, Mid-Eastern, Asian, African and Central and South American traditions. The theme of the seminar, the historical period and the individual works studied are at the discretion of the instructor. Repeatable once for credit with a change of content and departmental consent. Prerequisite: admission into a WSU English department graduate program, completion of or concurrent enrollment in ENGL 700, or permission of English graduate coordinator.

**ENGL 712. Graduate Studies in Fiction (3).** Selected topics in the development of the form and content of prose fiction. Prerequisite: completion of or concurrent enrollment in ENGL 700, or permission of English graduate coordinator.

**ENGL 713. Graduate Studies in Poetry (3).** Selected topics in forms, techniques and history of poetry. Prerequisite: completion of or concurrent enrollment in ENGL 700, or permission of English graduate coordinator.

**ENGL 714. Graduate Studies in Drama (3).** Selected topics in the history and nature of dramatic literature. Prerequisite: completion of or concurrent enrollment in ENGL 700, or permission of English graduate coordinator.

**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. Prerequisite: completion of or concurrent

enrollment in ENGL 700, or permission of English graduate coordinator.

**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. Prerequisite: completion of or concurrent enrollment in ENGL 700, or permission of English graduate coordinator.

**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— oratory, history, memoir, political writings, philosophy—and major works and authors such as *Beowulf*, Cynewulf, 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. Prerequisite: completion of or concurrent enrollment in ENGL 700, or permission of English graduate coordinator.

**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. Prerequisite: completion of or concurrent enrollment in ENGL 700, or permission of English graduate coordinator.

**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 1789, 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. Prerequisite: completion of or concurrent enrollment in ENGL 700, or permission of English graduate coordinator.

**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. Prerequisite: completion of or concurrent enrollment in ENGL 700, or permission of English graduate coordinator.

**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 seminar may also focus on additional poets, novelists and dramatists, such as modernism, postmodernism, etc. Repeatable once for credit with change of content and departmental consent. Prerequisite: completion of or concurrent enrollment in ENGL 700, or permission of English graduate coordinator.

**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. Prerequisite: completion of or concurrent enrollment in ENGL 700, or permission of English graduate coordinator.

**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. Prerequisite: completion of or concurrent enrollment in ENGL 700, or permission of English graduate coordinator.

**ENGL 770. Professionalism (1).** Seminar and workshops cover topics such as applying for advanced study, the academic job market, preparation of job application materials, where and how to present or publish research or creative writing, and similar issues. Graded *S/U*.

**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.

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

### Ethnic Studies

See Community Affairs, School of, page 162.

### Film Studies

Wichita State University does not offer a film studies major. Students may earn a certificate in film studies.

### Certificate in Film Studies

The certificate in film studies requires 18 credit hours in film-oriented courses from any department or discipline that offers such courses. The certificate is offered both for those students

seeking employment in some aspect of film or film criticism, and for those wishing to improve their understanding of film. The film studies certificate can prove useful to students majoring in literature, broadcast journalism, speech and fine arts; it also can appeal to those in fields where some knowledge of mass communication as a cultural phenomenon is desirable, including sociology, history, anthropology, psychology, education and administration. The certificate offers opportunities to study film as an art form and to gain experience in media production.

The film studies certificate 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 certificate are:

|           |  |
|-----------|--|
| ANTH 150F | American Culture in Film                 |
| COMM 220  | Introduction to Film Studies             |
| COMM 303  | Audio Production                         |
| COMM 304  | Studio Video Production                  |
| COMM 604  | Video Storytelling                       |
| COMM 622  | Studio B: Live TV News                   |
| ENGL 307  | Narrative in Literature and Film         |
| ENGL 508  | Critical Studies in Film                 |
| ENGL 808  | Graduate Studies in Film                 |
| FREN 520  | Novel and Film                           |
| HIST 399C | World War II in Film                     |
| POLS 390E | Film/Great Trials                        |
| SPAN 520  | Literature in Film                       |
| THEA 253  | Costuming for Stage & Film               |
| WOMS 382  | Feminism and Girl Culture                |
| WOMS 510  | Hollywood Melodrama:<br>The Women's Film |
| WOMS 523  | Feminist Film Criticism                  |
| WOMS 585  | The Femme Fatale in Film Noir            |

### Geography (GEOG)

Wichita State University does not offer a major in geography. GEOG 235 is intended as natural sciences course, 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 125. Principles of Human Geography (3).** *General education introductory course (social science).* An introductory course examining the development of human and cultural landscapes.

**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 geology. 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 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, environmental 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:

*Required core courses*.....24 hrs.

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

Climactic Change ..... 3

GEOL 681 Computer Apps. in Geology ..... 3

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.

*Required supporting sciences*

STAT 370 Elementary Statistics ..... 3

MATH 112 Precalculus Mathematics (5) or

MATH 123 College Trigonometry.....3

CHEM 103 Introductory Chemistry or

CHEM 211 General Chemistry.....5

PHYS 111 Introductory Physics ..... 4

(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 sciences 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 sciences. 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:

*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 552 Physical Stratigraphy ..... 3

GEOL 570 Biogeology ..... 3

*Required capstone course:*

GEOL 640 Field Geology ..... 6

*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).

*Required supporting sciences*

MATH 242, 243, Calculus I, II ..... 10

STAT 370, Elementary Statistics ..... 3

CHEM 211, 212, General Chemistry I, II..... 10

PHYS 213, 214, General College Physics I, II...10

or PHYS 313, 314, Physics for Scientists I, 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 sciences 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 minoring 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 sciences 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, the 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, nonmetal, 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 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 410H. 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 airphotos. 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, 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 562. Regional Geology of the United States (2).** A detailed regional survey of the general geology, geomorphology, stratigraphy and structural geology of the U.S., including its national parks, and their interrelationships.

Requires field trips (instructor's option). Prerequisite: GEOL 102 or 111 or GEOL/GEOG 201.

**GEOL 564. Remote Sensing Interpretation (3). 2R; 3L.** Introduces interpretation techniques for most types of images acquired by remotely positioned means. Physical principles that control various remote sensing processes using the electromagnetic spectra are applied to geology, land use planning, geography, resource evaluation and environmental problems. Derivative maps generated from a variety of images. May require field trips. Prerequisite: GEOL 102 or 111 or GEOL/GEOG 201.

**>GEOL 570. 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 handlens and binocular microscopic examination of major fossil biogeological materials. Includes application of analyzed fossil data to the solution of problems in biogeochronology, paleoecology, paleoclimatology and paleogeography. Cites examples from fields of invertebrate, vertebrate and micropaleontology, and palynology. May require museum and field trips. Prerequisite: GEOL 312.

**>GEOL 574. Special Studies in Paleontology (3). 2R; 3L.** *General education further study course.* A systematic study in selected areas of biogeology and paleontology. Content differs, upon demand, to provide in-depth analysis in the fields of: (A) invertebrate paleontology, (B) vertebrate paleontology, (C) micropaleontology, (D) palynology, and (E) paleoecology. Gives appropriate laboratory instruction in the systematics, 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). Off-campus, 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 324, 540, 544, 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 678. Geologic Perspectives on Climactic Change (3).** Capstone course. Modern climate and climactic changes and analysis of climactic deterioration; systematic study of geologic evidence of climate change through time. Emphasizes theoretical causes, feedback mechanisms and recognition of effects on climactic perturbations in the rock record. Prerequisites: GEOL 312, 526.

**GEOL 680. Geologic Resources and the Environment (3). 2R; 3L.** Occurrence and origin of metallic and nonmetallic economic mineral deposits, laboratory examination of ores and industrial minerals. Occurrence and supply, regeneration and future demand for water and soil resources, and fossil and nuclear fuels. Studies environmental aspects of resource exploitation and use, generation and disposal of waste, environmental hazards, and 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, 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, 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, (i) stratigraphy, (j) 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).** 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).** 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: GEOL 702, 703.

**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 system. May require field trips. Prerequisites: GEOL 526, 552 or equivalents.

**GEOL 727. Carbonate Diagenesis (3). 2R; 3L.** Analyzes diagenesis of carbonate sediments and rocks. Includes mineralogical 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 climactic change, and sea level rise and their effects on populations; future trends in environmental management and remediation of environmental problems of geologic scope. Prerequisites: 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 subsurface mapping to document depositional, tectonic and burial history of sedimentary basins; subsurface lithologic and geochemical sample analysis and evolution of sedimentary facies systems and hydrocarbons maturation history. Includes compilation of existing data to determine geologic

evolution of basins. Prerequisites: GEOL 682, 684 or instructor's consent.

**GEOL 745. Advanced Stratigraphy (3).** Analysis of stratigraphic sequences at the local to global scales in terms of sequence stratigraphic concepts and high-resolution interpretation of depositional sequences (from outcrop and subsurface data); seismic sequence stratigraphy, and significance of unconformities in sequence identification and development; local to global correlation of sequences and sea level history through time; cratonic sequences of North America. Required seven-day field trip. Prerequisites: GEOL 312, 526, 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 Geohydrology (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 nonaqueous 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 chemistries. Computer simulation models used whenever practical along with detailed analysis of case histories, including those related to environmental geoscience. Prerequisites: GEOL 650, 681, MATH 344, or instructor's consent.

**GEOL 752. Climactic 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 nature of climactic records. Roles of climate change on the evolution of Earth's biosphere, hydrosphere, atmosphere and lithosphere. Field trip(s) 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 555; GEOL 324, 544, instructor's consent.

**GEOL 781. Advanced Numerical Geology (3).** Involves practical implementation of algorithms and computer code. Includes the analysis of multivariate techniques and the development of the computer/algorithm skills needed to handle very large databases. Covers standard statistical approaches to data analysis, treatment of applied linear algebra and matrix theory; the application of linear and nonlinear discriminate analysis, various factor analytic techniques, hard and fuzzy clustering, linear and nonlinear unmixing 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 WSU Graduate Catalog for courses numbered 800 and above.

## History (HIST)

The purpose of WSU's Department of History is to illuminate the forces that have shaped our world and to provide a historical perspective for the future. To accomplish those goals, the department offers a flexible program of study. While students may focus on a specific area of concentration, the program introduces them to a variety of classes that 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, 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 European society which led to and ultimately culminated in the murder of approximately six 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; an introduction to the tools and techniques that historians use to present historical research in nonacademic settings.

>**HIST 330. The Americans: Conflict and Consensus in the Development of American Society and Culture (3).** *General education issues and perspectives course.* A topical examination of selected historical phenomena and personages in the evolution of American democratic society as interpreted by historians and literati.

>**HIST 332. Ethnic America, 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, 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 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 509. The African-American Historical Experience (3).** Provides a panoramic examination of the African-American experience. Chronologically, it covers life in Africa before the trans-Atlantic slave trade to the present day. It focuses on the social, political and economic development of the transplanted Africans in the United States. Prerequisites: junior, senior or graduate status.

**HIST 511. Women in Early America, 1600–1830 (3).**

**HIST 512. Women and Reform in America, 1830–Present (3).**

**HIST 515. Economic History of the United States (3).** Cross-listed as ECON 627.

**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 prehistoric times to the present. Includes the process of European colonization and indigenous responses, the strategies of accommodation, assimilation and resistance, and the resurgence of tribalism in the 20th century.

**HIST 537. The Trans-Mississippi West (3).** Spanish, French and Anglo-American penetration and settlement west of the Mississippi River from the 16th century to about 1900.

>**HIST 538. The American West in the 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 is 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 579. Asian Women in Modern History (3).** Cross-listed as ETHS 579 and WOMS 579. Examines women's historical and contemporary experiences in Asian America and eight major countries in modern Asia. Covers topics on Asian women's activism in relation to nationalism and women's rights. Investigates Asian women's roles and statuses in the family and society and their educational attainment and contributions to the export-oriented industrialization of the Asia-Pacific region. Examines the intra-regional migration of female guest workers among various countries in Asia. Traces the ways in which the changes in immigration laws

during the 20th century affect patterns of Asian women's migration to the United States. Introduces writing that integrates Asian women's lives and Asian American experiences into the discourses on ethnicity, national origin, class, gender and sexual orientation in the United States and the Asia-Pacific region.

>**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 583. Europe, 1945–Present (3).** A survey of European history, 1945–present.

>**HIST 588. History of Early Russia (3).** *General education further study course.* Covers the social, political and cultural history of Kievan and Muscovite Russia.

>**HIST 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. Class assignments and discussions encourage students to examine their own 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 historic preservation, archival administration, museum studies, litigation support, and corporate history. Students learn the philosophies, techniques and practices that comprise the field, and ways these areas interact with their academic training. Prerequisite: graduate standing or instructor's consent.

**HIST 702. Historic Preservation (3).** Advanced survey of the multifaceted, multidisciplinary field of historic preservation. Presents a broad and sophisticated view of the many arms of preservation in the U.S., as well as the numerous opportunities available to trained

professionals in the field. Prerequisite: HIST 701 or instructor's consent.

**HIST 703. Museum Administration (3).** Addresses the many facets of museum administration from a specialist's point of view. Covers collecting, management, law and ethics, and resource development. Gives a close view of the operations of American museums. Prerequisite: HIST 701 or instructor's consent.

**HIST 704. Interpreting History to the Public: Explaining the Past (3).** Looks at ways history can be communicated to audiences, including scholarly texts, popular written histories, movies, videos, guidebooks, museums, and other similar media. Explores the differences between various forms of historical communication and assesses the ways they reach audiences. 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 area. Offered Cr/NCr only. Prerequisite: instructor's consent.

Please see the WSU 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 Premedical 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](http://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 the Soviet Union..... | 3 |
| HIST 593  | Former Soviet Union.....         | 3 |
| PHIL 350  | Ancient Chinese Philosophy ..... | 3 |
| PHIL 365  | Survey of Asian Philosophy ..... | 3 |
| PHIL 565  | Topics in Asian Philosophy.....  | 3 |
| PHIL 590T | Japanese Philosophy & Film ..... | 3 |
| POLS 524  | Politics of Modern China .....   | 3 |
| WOMS 370  | Women in World Religions.....    | 3 |
| WOMS 579  | Asian Women in Modern Hist. ...  | 3 |

For information and application procedures please contact Dr. Robert Feleppa (316) 978-3125, [robert.feleppa@wichita.edu](mailto:robert.feleppa@wichita.edu), or Dr. Helen Hundley (316) 978-7745, [helen.hundley@wichita.edu](mailto: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. Nondegree 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, 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, 536.

For more information, contact coordinator, Jean Griffith, (316) 978-3130, or [jean.griffith@wichita.edu](mailto:jean.griffith@wichita.edu).

### 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. For more information and advising, contact coordinator, Francis

X. Connor, (316) 978-3130, or [francis.connor@wichita.edu](mailto:francis.connor@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 520     | Seminar in Art History                                       |
| 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 580/860 | Sp. Studies in Medieval Lit.                                 |
| ENGL 715     | Seminar in Chaucer   |
| ENGL 720     | Seminar in Old English                                       |
| ENGL 721     | Seminar in Medieval Literature                               |
| ENGL 722     | Seminar in Renaissance Lit.                                  |
| 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                                |
| LATN 111     | Elementary Latin I   |
| LATN 112     | Elementary Latin II  |
| LATN 223     | Intermediate Latin   |
| LATN 224     | Intermediate Latin   |
| LING 635     | Introduction to Romance Ling.                                |
| SPAN 532     | Survey of Spanish Literature                                 |
| SPAN 623     | Seminar in Spanish   |
| MUSC 334     | History of Music I   |
| POLS 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, 223–224). 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 not 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. Returning Adults (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.

**WSUA 101. Introduction to the University (3).** Designed especially for first-year students in their first semester at WSU, this course prepares students to succeed in college. Helps students form connections with each other, with faculty, with campus services and with the institution as a whole. It assists students in developing intellectually, emotionally and socially. It provides information and training about: college expectations, academic majors, careers and life planning; study skills and test taking, teaching and learning styles, respecting diversity of thought and culture, critical thinking, leadership, university policies and procedures, managing time and money, health and wellness, and the benefits of engagement in student organizations. Encourages and supports students as they adjust to college life and promotes reflective learning. In addition to other course projects, students create an individualized graduation plan through a collaborative process that involves academic advisers, the course instructor and peer mentors assigned to the course. Students who successfully complete this course have greater academic success and an improved rate of graduation compared to students who do not take this class.

**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 170. Introduction to Library Research (1).** Students learn to locate and retrieve information in both print and electronic formats, including the Internet, and learn to distinguish between scholarly research and nonscholarly publications. Students learn how to develop and carry out research strategies on any topic.

**LASI 190. Inquiry in Liberal Arts and Sciences (3).** Introduces the liberal arts and sciences as the foundation of the university education. Team taught by faculty from the humanities, social sciences and natural sciences. Topics of general interest from various disciplinary perspectives and ways of knowing. Students gain insights which may guide them towards majors, areas of concentration and their own pursuit of understanding.

**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/NCr* 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, genetics, economic strategies, the environment, and health and education. May be applied to any of the disciplines of the humanities, social sciences and natural sciences.

**LASI 350. Workshop: Special Topics (1-3).** Meets identified needs of specific audiences.

**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; next, 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. Repeatable for two enrollment periods or a maximum of 30 credit hours.

**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 is transferred to Wichita State at the end of the exchange semester. At that time, the transfer courses 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 credit one time.

**LASI 481. Cooperative Education (1-4).** See LASI 281.

### 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 undergraduates or graduates 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; undergraduates 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; next, 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 is transferred to WSU. At that time, the transfer course(s) 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 WSU 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 taken 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).** 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 ENGL 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 B—Linguistic Study of Specific Languages or Language Groups

#### Courses for Graduate/Undergraduate Credit

LING 505A. **Advanced French Phonetics and Diction (2).** Cross-listed as FREN 505. Includes articulatory phonetics, phonemics, sound/symbol correspondences, dialectal and stylistic variations. Required for future French teachers. Prerequisite: any 200-level course or departmental consent.

LING 505B. **Russian Phonology (2).** Cross-listed as RUSS 505.

LING 505C. **Spanish Phonetics (2).** Cross-listed as SPAN 505.

LING 635. **Introduction to Romance Linguistics (3).** Cross-listed as FREN 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, Latin, Italian or Portuguese). Prerequisite: departmental or instructor's consent.

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.

### Group C—Areas of Contact Between Linguistics and Other Disciplines

#### Upper-Division Courses

LING 304. **Developmental Psycholinguistics (3).** 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.

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 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 595. **Linguistics. Directed Readings (2–3).** Credit assigned to Group A, B or C depending on content. Repeatable for credit.

## Mathematics, Statistics and Physics

### 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, statistics and physics 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, statistics and physics 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, 525, 615, 621, 720

Group B: STAT 460, 571, 572, 574, 576, 763, 771, 772, 775, 776

Group C: MATH 530, 545, 548, 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, 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. Bachelor of Science candidates must have a higher algorithmic computer language. MATH 451 is strongly recommended. Students under this option may select statistics courses from other departments with the approval of the department of mathematics, statistics and physics.

For the Bachelor of Science (BS) degree with emphasis in computing, students must complete all courses in Group R. Students must also complete MATH 451 and another higher level programming language. In addition, the BS candidate must complete CS 300, MATH 321, 322, plus four courses selected from MATH 553, 657, 751; STAT 774; CS 194, 238, 410, 510, 540, and 560. At least three of the four 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.

**Fast Track, Dual/Accelerated Bachelor's to Master's Program.** The fast track, dual/accelerated bachelor's to master's program in mathematics and statistics is designed to prepare qualified students for graduate work in mathematics and statistics through a coordinated program leading to both degrees. A student in the program will be allowed to enroll in courses for graduate credit while completing undergraduate degree requirements.

Prior to application for admission to the program, a student interested in the program and receiving the recommendation of at least one faculty member, will be assigned a fast track adviser and advisory committee. Typically this should be done by the sophomore year, but may be done somewhat later. Being assigned a fast track adviser does not imply admission to the program.

To be considered for admission to the program, the following must be satisfied:

1. An undergraduate GPA of 3.000 overall and 3.500 in math and statistics courses;
2. Completion of at least 60 hours of undergraduate study, with at least 18 hours remaining for completion of the undergraduate degree;
3. Completion of MATH 415, 451 and 511, and either completion of or current enrollment in MATH 513 or 547; and
4. Positive recommendation from the student's fast track adviser.

The student should apply for admission during the semester prior to the first semester in which he or she intends to enroll in a course for graduate credit. Students admitted to the dual/accelerated program will be allowed to enroll in courses for graduate credit, including 800-level courses, prior to completing undergraduate degree requirements. At most 9 hours may be joint degree hours-hours taken for graduate credit at the 700-level (or above) that are also applied to the bachelor's degree. A course taken for joint credit must be so identified at the time of enrollment in that course.

After initial admission, continuation in the program requires a continuing WSU and undergraduate cumulative GPA of at least 3.000 and a GPA of at least 3.000 in courses taken for graduate credit. MATH 513 must be included in the undergraduate program of study for students in the dual/accelerated program. Otherwise requirements for the BS or BA in mathematics and statistics are the same as for other students with a major in mathematics and statistics. Students admitted to the dual/accelerated program are expected to write a thesis as part of their master's degree program of study. A student who has previously been admitted to a graduate degree program at Wichita State may not be admitted to the dual/accelerated program.

**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, statistics and physics 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. The MATLAB course, MATH 451, is strongly recommended.

#### Noncredit 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).** *General education basic skills course for students majoring in nontechnical areas.* A collection of applications of mathematics illustrating how contemporary mathematical thinking is used in the decision-making process. Covers topics selected from such areas as the mathematics of social choice, management science, statistics, coding information, and the geometry of growth, shape and symmetry. Prerequisite: MATH 012 or two years of high school algebra and a qualifying score on a recent departmental placement examination.

>**MATH 144. Business Calculus (3).** *General education introductory course.* A brief but careful introduction to calculus for students of business and economics. Credit in both MATH 144 and 242 is not allowed. Prerequisite: MATH 111 or 112 with a C or better, or equivalent high school preparation.

**MATH 150. Workshop in Mathematics (1–3).** Topics of interest to particular students and not elsewhere available in the curriculum. May be repeated for a total of 6 hours credit with departmental consent. Prerequisite: departmental consent.

>**MATH 242. Calculus I (5).** *General education introductory course.* Analytic geometry and the calculus in an inter-related 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, 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.

**MATH 251. Technical Calculus I (3).** Standard topics in analytic geometry and calculus, including differentiation and integration, with applications to engineering technology. This course is intended for students in the engineering technology program. Not open to students with credit in MATH 144 or 242. Prerequisite: MATH 112 with a C or better, or MATH 111 and 123 with C or better in each, or equivalent preparation.

**MATH 252. Technical Calculus II (3).** Standard topics in analytic geometry and calculus, including topics in multidimensional calculus and differential equations with applications to engineering technology. This course is intended for students in the engineering technology program. Prerequisite: MATH 251 with a C or better, or MATH 242 with C or better, or equivalent preparation.

#### 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 point of 2.000 or better, or CS 210 and 211, each with a grade point of 2.000 or better.

**MATH 322. Discrete Structures II (3).** A continuation of MATH 321. Includes relations, graphs, trees, Boolean algebra and automata. Prerequisite: MATH 321.

**MATH 344. Calculus III (3).** A continuation of MATH 243. Includes a study of multiple integration and partial derivatives. Prerequisite: MATH 243 with a grade point of 2.000 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 grade point of 2.000 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 grade point of 2.000 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 a grade point of 2.000 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 point of 2.000 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 a grade point of 2.000 or better.

**MATH 513. Fundamental Concepts of Algebra (3).** Defines group, ring and field, and studies their properties. Prerequisites: MATH 415 and 511 with a grade point of 2.000 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 a grade point of 2.000 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 a grade point of 2.000 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 a grade point of 2.000 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's Theorem, and the Divergence Theorem. Also includes the study of improper integrals with application to special functions. Prerequisite: MATH 344 with a grade point of 2.000 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 a grade point of 2.000 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 a grade point of 2.000 or better.

**MATH 551. Numerical Methods (3).** Approximating roots of equations, interpolation and approximation, numerical differentiation and integration, and the numerical solution of first order ordinary differential

equations. Some computer use. Prerequisites: MATH 344 and 451 with a grade point of 2.000 or better, or departmental consent.

**MATH 553. Mathematical Models (3).** Covers case studies from the fields of engineering technology and the natural and social sciences. Emphasizes the mathematics involved. Each student completes a term project which is the solution of a particular problem approved by the instructor. Prerequisite: Math 344 with a grade point of 2.000 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. Prerequisite: MATH 243 with a grade point of 2.000 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 a grade point of 2.000 or better, or departmental consent.

**MATH 621. Elementary Geometry (3).** Studies Euclidean geometry from an advanced point of view. Prerequisite: MATH 344 with a grade point of 2.000 or better, or departmental consent.

**MATH 640. Advanced Calculus II (3).** A continuation of MATH 547. Prerequisites: MATH 511 and 547 with a grade point of 2.000 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 a grade point of 2.000 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 a grade point of 2.000 or better.

**MATH 713. Abstract Algebra I (3).** Treats the standard basic topics of abstract algebra. Prerequisite: MATH 513 with a grade point of 2.000 or better, or departmental consent.

**MATH 720. Modern Geometry (3).** Examines the fundamental concepts of geometry. Prerequisite: MATH 513 with a grade point of 2.000 or better, or departmental consent.

**MATH 725. Topology I (3).** Studies the results of point set and algebraic topology. Prerequisite: MATH 547 with a grade point of 2.000 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 a grade point of 2.000 or better, or departmental consent.

**MATH 745. Complex Analysis I (3).** Studies the theory of analytic functions. Prerequisite: MATH 640 with a grade point of 2.000 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, 551 with a grade point of 2.000 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 a grade point of 2.000 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 a grade point of 2.000 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 a grade point of 2.000 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 a grade point of 2.000 or better.

Please see the WSU 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). 2R; 3L.** *General education introductory course.* A computer literacy course introduces students to the Internet and other networks, multimedia, CD ROM, historical development of the computer, uses of the computer in business, industry, government, education and the home; hardware components of a computer system, data representation, systems analysis and design, and issues of ethics posed by technology. The laboratory section includes hands-on experience with the Internet, Windows, and 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.

## 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, 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, computers and electronics, to be strong selling points.

**Major.** The following courses are required for a physics major: PHYS 213–214 or 313–314–315–316, 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 departmental 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 departmental 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. Prerequisite: 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 210. Physics of Sound (3). 2R; 1L.** *General education issues and perspectives course.* Cross-listed as CSD 210. Studies the physical nature of sound generation by the human vocal system and musical instruments, including sound propagation and wave properties. Covers sound reception in the human ear, electronic sound generation, recording and measurements. Basic principles of physics are introduced to build a working knowledge of the subject for students in speech-language pathology, audiology, music and related fields.

**>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. Credit is given for only one of PHYS 213, 303 or 313. 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 303 or 313; or PHYS 213 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 given for only 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 214, 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 315. **University Physics Lab I (1).** 3L. *General education introductory course.* Lab experiments in mechanics, waves and thermodynamics. Required for natural sciences majors enrolled in PHYS 303 or 313. Prerequisite: MATH 242. Corequisite: PHYS 303 or 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 a physical science background for teachers. Repeatable for a maximum of 5 hours. Prerequisite: inservice or preservice teacher.

PHYS 502. **Science Investigations: Physics (5).** Introductory course for prospective teachers. Basic physics concepts in mechanics, heat, and electricity and magnetism developed through laboratory investigations. Emphasizes science process skills and the nature of the scientific endeavor. Prerequisite: MATH 111 or equivalent; inservice or preservice teacher.

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 in 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: MATH 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 623. **Advanced Mechanics (3).** Continuation of PHYS 621. Covers dynamics of a system of coupled particles, fluid mechanics, systems with continuum distributions of mass, and theory of small oscillations all in a Lagrangian or Hamiltonian formulation. Prerequisite: PHYS 621, or MATH 553 or 555, or instructor's consent.

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. **Thermodynamics (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 Schrodinger 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 nuclear 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 714. **Theoretical Physics (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.

PHYS 730. **Principles of Computer Modeling (2)** 1R; 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 WSU Graduate Catalog for courses numbered 800 and above.

## Statistics (STAT)

No major or minor in statistics is available, but a BS degree with emphasis in statistics is offered as described under the mathematics section. Statistics courses satisfy general education requirements. As part of the 124 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 nonparametric statistical techniques, least squares, analysis of variance, and topics in design of experiments. Prerequisite: MATH 243 with a grade point of 2.000 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 costs. 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 grade point of 2.000 or better.

>STAT 576. **Applied Nonparametric Statistical Methods (3)**. *General education further study course*. Studies assumptions and needs for nonparametric tests, rank tests, and other nonparametric 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 a grade point of 2.000 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 multivariate 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 grade point of 2.000 or better.

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. Prerequisites: STAT 571, MATH 344 and 511 with a grade point of 2.000 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 a grade point of 2.000 or better in each, or departmental consent.

STAT 771–772. **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 a grade point of 2.000 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 a grade point of 2.000 or better, or departmental consent.

STAT 776. **Applied Statistical Methods II (3)**. Covers selected topics from multivariate analysis including statistical theory associated with the multivariate normal, Wishart and other related distributions, partial and multiple correlation, principal component analysis, factor analysis, classification and discriminant analysis, cluster analysis, James-Stein estimates, multivariate probability inequalities, majorization and Schur functions. Prerequisite: STAT 764 with a grade point of 2.000 or better, or departmental consent.

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

## Modern and Classical Languages and Literatures (MCLL)

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 Chinese, 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 2.000 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 2.000 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 2.000 in a required validation course, the student may retake the class and apply for retroactive credit once the grade of 2.000 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](http://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 210, 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:

|   |                  |
|---|------------------|
| Language A beyond 210/220 or Latin 112..... | 12               |
| Language B beyond 210/220 or Latin 112..... | 12               |
| MCLL 351 .....                              | 3                |
| LING 151 or LING/FREN/SPAN 635 .....        | 3                |
| Language-related elective course.....       | 3                |
| <b>Total</b> .....                          | <b>(33 hrs.)</b> |

**Distribution requirements:** German: at least two of the following three: GERM 300, 325, and 526. 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.

### Arabic (ARAB)

#### Lower-Division Courses

**ARAB 111. Elementary Arabic 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.

**ARAB 112. Elementary Arabic 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 Arabic, ARAB 111 or departmental consent.

**ARAB 210. Intermediate Arabic (5).** Continues to develop the four fundamental skills in language learning: listening, speaking, reading and writing; emphasizes conversation and cultural readings. Prerequisite: two units of high school Arabic, ARAB 112 or departmental consent.

### 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.

**CHIN 224. Intermediate Chinese (3).** A continuation of CHIN 210; further enhancement of listening comprehension and speaking, reading and writing skills. Prerequisite: CHIN 210 or instructor's consent.

### 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: MCLL 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; emphasizes conversation and cultural readings. Prerequisite: two units of high school French or FREN 112 or departmental consent.

**FREN 215. French Study Abroad (3-6).** Transfer of credit from a French-speaking university in (A) grammar, (B) conversation, (C) reading.

**>FREN 223. Intermediate French Readings I (3).** *General education further study course.* Intensive reading of diverse literary works in French. Course 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/N/Cr only. Prerequisite: FREN 324 or departmental consent.

#### Courses for Graduate/Undergraduate Credit

**FREN 505. Advanced French Phonetics (3). 2R; 1L.** Cross-listed as LING 505A. Includes articulatory phonetics, phonemics, sound/symbol correspondences, dialectal and stylistic variations. Required for future French teachers. Prerequisite: any 200-level course or departmental consent.

**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 520. Novel and Film (3).** Analysis and discussion of celebrated French novels together with major film versions of the same. The status of the image in relation to the works' historical and cultural contexts is the focus. Prerequisite: FREN 300.

**FREN 525. Advanced French Conversation (3).** Designed to increase proficiency in spoken French. Assignments include oral reports, dialogs and work in the language laboratory. Prerequisite: FREN 324 or departmental consent.

**FREN 526. Advanced French Composition and Grammar (3).** Emphasizes theme writing, original compositions and detailed study of modern French grammar. Prerequisite: FREN 324 or departmental consent.

**>FREN 540. French Literature in English Translation (3).** *General education further study course.* Topic varies. May be used to satisfy the LAS literature requirement and may count toward a French major or minor if readings and papers are done in French.

**>FREN 541. French Literature of Africa and the Caribbean in Translation (3).** *General education further study course.* A study of the concept of Negritude through the works of major 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. Classwork 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. Classwork 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, Latin, Italian or Portuguese). Prerequisite: departmental or instructor's consent.

**FREN 636. Contemporary French Literature (3).** Analyzes and discusses major works of French fiction, poetry and drama, 1945–present. Prerequisite: FREN 300.

**FREN 726. French Composition and 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 WSU Graduate Catalog for courses numbered 800 and above.

## German (GERM)

**Minor.** A minor in German consists of 11 hours beyond the 210 level. Students are permitted to count GERM 341 for minor credit.

### 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 210. Intermediate German I (5).** *General education introductory course.* Reviews and completes the presentation of German grammar offered in GERM 111 and 112. Students are offered the opportunity to further develop their oral proficiency in German and to begin focusing attention on their reading and writing skills in a variety of contexts. Replaces GERM 220 effective fall 2013. Prerequisite: GERM 112 or equivalent, or two units of high school German.

**>GERM 224. Intermediate German II (3).** *General education further study course.* Intensive reading and discussion of short German literary works (poems, short stories) combined with intermediate-level review of German grammar and expansion of German vocabulary. This course is required to continue the study of German at the upper-division level (i.e., GERM 300 and above). Replaces GERM 223 effective fall 2013. Prerequisite: GERM 210 or equivalent.

**GERM 225. German Conversation (2).** The development of oral fluency. Prerequisite: GERM 210, 224, or concurrent enrollment in 224.

### Upper-Division Courses

**>GERM 300. Intermediate German Readings (3).** *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 224 or instructor's consent.

**GERM 325. 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 interrelation 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 505. German Phonology (2).** Course deals with corrective pronunciation (articulation of German speech sounds and intonation) as well as formal phonetic analysis. Teaches students the International Phonetic Alphabet in order to improve their use of German dictionaries and possible comparison of German dialects. Prerequisites: GERM 224, 225, or instructor's consent.

**GERM 526. Advanced German Grammar and Composition (3).** Continues the advanced grammar review

begun in GERM 300 and focuses on developing German writing skills, including the ability to express oneself with grammatical accuracy and stylistically appropriate vocabulary. Prerequisite: GERM 300 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.

## 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.

## 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.

## 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.

**JAPN 224. Intermediate Studies in Japanese Language (1–3).** The course may deal with one of the following topics in Japanese language as announced by the instructor: (a) continuing intermediate Japanese grammar; (b) Japanese business terminology; (c) intermediate Japanese readings; (d) other topics as approved by the department. Repeatable for credit provided the topic is different. Prerequisite: JAPN 223, 225, or instructor's consent.

**JAPN 225. Japanese Conversation (2).** Develops oral fluency. Pre- or corequisite: JAPN 223.

### Upper-Division Courses

**JAPN 300. Special Studies (1–3).** Topic announced by instructor. Repeatable for credit. Prerequisite: instructor's consent.

## 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.

**LATN 225. Introductory Composition and Reading (2).** Helps students begin to compose original Latin sentences and short paragraphs on their own, as a means to better understanding Latin grammar, particularly lexicon and syntax. All compositions by students are based on questions in Latin about original Latin readings covered in class. May be taken concurrently with Latin 223, or, preferably, with Latin 224. Pre- or Corequisite: LATN 223.

### 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 525. Medieval Latin (3).** Introduction to medieval Latin language and culture. Samples the range of Latin literature from the fifth to the 12th centuries through readings of religious and secular (including philosophical, political, historical and linguistic) texts in prose as well as the Latin poetry and drama of various medieval writers. Prerequisite: LATN 224 or departmental consent.

**LATN 526. Advanced Grammar and Composition (3).** Intensive study of the grammar and style of classical Latin prose of the Golden Age, especially of Cicero and Caesar. Required capstone course for the MCLL major with specialization in Latin.

**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 (broad 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 *Cr/NCr* 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 *Cr/NCr* 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 (5).** 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. Corequisite: student teaching.

**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.

**MCLL 790Q. Special Topics in Music and Foreign Language (1-5).** Cross-listed as MUSP 790Q (College of Fine Arts). Allows undergraduate and graduate students to take courses in the modern foreign languages together with individualized instruction in the translation and diction of poetical texts set to music. Course may be used to satisfy the foreign language requirement of the Bachelor of Music in performance—vocal emphasis. Repeatable for credit. Prerequisite: departmental consent.

## 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 (*intonatsionnye 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, Turgenyev, 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.

## 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, 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 12 hours beyond the SPAN 210 level and must include SPAN 220, 223, 325 and 3 hours at the 500-level or above.

**Certificate in Spanish for the Professions:** The certificate in Spanish for the professions is designed to train both WSU students, as well as community members in nondegree programs, to become linguistically capable, knowledgeable and culturally sensitive individuals able to perform language services in professional settings where Spanish is used. Prerequisites: SPAN 220, 325.

**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, or SPAN 325. 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 (3).** Prerequisite: SPAN 210, or three units of high school Spanish, or departmental consent.

**>SPAN 223. Selected Spanish Readings (3).** *General education further study course.* Intensive reading of Latin-American and Spanish literary works. Also includes outside readings and reports. Course satisfies the LAS literature requirement. Prerequisite: SPAN 210, or three units of high school Spanish, or departmental consent.

#### 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. Intermediate Spanish Conversation (3).** Develops aural and oral proficiency through listening, vocabulary building, culturally appropriate communication strategies, and pronunciation practice in an immersion environment. Prerequisite: SPAN 210, or three units of high school Spanish, or departmental consent. Students are encouraged to take SPAN 220 along with 325.

**SPAN 357. Introduction to Translation and Interpreting (3).** Introduction to the basic knowledge, skills and techniques of translation and interpreting in addition to lexical development in different domains of professional Spanish. The course combines lectures and discussions in addition to hands-on activities in a workshop setting. Prerequisites: SPAN 220, 325.

**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, dialectal 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, (I) problems in teaching Spanish, (J) advanced conversation. Repeatable for credit. Prerequisite: departmental consent.

**SPAN 520. Literature in Film (3).** Spanish or Latin American literature and its representation in film. Repeatable for credit. Prerequisite: SPAN 300.

**SPAN 525. Advanced Spanish Conversation (3).** Provides students the opportunity to further develop aural and oral proficiency through listening, vocabulary building, culturally appropriate communication strategies, skits, presentations and pronunciation practice in an immersion environment. 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).** Provides the opportunity to learn and practice commercial correspondence, business vocabulary, translation and interpretation of business texts. Prerequisite: SPAN 526.

**SPAN 557. Literary and Technical Translating in Spanish (3).** Extensive translation of literary works and technical and legal documents from Spanish to English and English to Spanish. Prerequisite: SPAN 526 or departmental consent.

**SPAN 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 623. Seminar in Spanish (1–5).** Seminar in Spanish literature, language or civilization. Repeatable for credit. Prerequisite: SPAN 300.

**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 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, Latin, 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).** Intensive study of advanced grammar and stylistic usage. Prerequisite: SPAN 526.

**SPAN 750. Workshop in Spanish (2-4).** Repeatable for credit.

Please see the WSU 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, communication 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 orients students to the philosophic aspects of their major fields.

### Lower-Division Courses

>**PHIL 100. The Meaning of Philosophy (3).** *General education introductory course.* An exploration of the meaning of philosophic activity. Through an examination of several basic interpretations of the distinguishing intentions, characteristic procedures and essential functions of the philosophic endeavor. 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 analytic 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 306. Business Ethics (3).** *General education issues and perspectives course.* A critical examination of representative moral issues that arise in the context of business. Focuses on topics such as the nature of professionalism, the social responsibility of business, regulation, employee rights and obligations, sexual harassment, economic justice, environmental impact, the limits of property rights, and conflicting international mores and practices. Prerequisite: PHIL 125 with a grade of C or better.

>**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, Adam 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, Malbranche 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. Prerequisite: PHIL 125.

>**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 WOMS 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 352. **Contemporary Chinese Philosophy (3).** *General education further study course.* Survey of Chinese philosophy from the late 19<sup>th</sup> century to the present day. Covers major figures such as Sun Zhongshan (Sun Yat-sen) Chen Duxiu, Li Dazhao, Mao Zedong and Deng Xiaoping. It also covers major schools of thought such as the New Culture Movement, Nationalism, Communism, Socialism, Maoism and the post-Mao Economic Reform Movement. Prerequisite: PHIL 100 or 144.

>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: junior standing or departmental consent.

>PHIL 360. **Ethical Theory (3).** *General education further study course.* A study of selected topics in ethics. Investigates issues such as the meaning and justification of moral judgments, the nature of morality, the relations between normative categories and the concept of justice, and the problem of revolution in moral schemes. Prerequisite: one course in philosophy.

PHIL 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. Prerequisite: junior or senior standing.

PHIL 400H. **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 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.

PHIL 450. **Truth and Reality (3).** A survey of philosophical theories of truth, including the correspondence, pragmatic and deflationary theories. Topics to be covered include skepticism, realism and anti-realism, and social constructionism. Reading may include selections from figures such as James, Peirce, Dewey, Wittgenstein, Russell, Tarski, Quine, Davidson, Austin, Strawson, Field, Hacking and Horwich.

PHIL 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.

#### 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 WSU 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 their 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 precollege 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.

**Major.** A major consists of POLS 121, 220, 226, 232, 365, 600 and 15 additional hours of study distributed in the following fashion:

Electives in the major (9–15 hours)—POLS 310, 315, 316, 317, 318, 319, 320, 321, 325, 330, 336, 337, 340, 345, 352, 356, 358, 360, 370, 380, 385, 390, 395, 396, 444, 524, 547, 570 and 580.

**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 five core courses (POLS 121, 220, 226, 232, 365); take an additional course beyond the introductory one in each of the four sub-fields (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 3.5000 GPA for all political science courses; and receive an *A* or *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 153. Model United Nations I (3).** A workshop to prepare students to participate effectively in various model United Nations, especially the Midwest Model U.N. in St. Louis.

>**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. Political Theory and Philosophy (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 rule of law, citizen participation and civil society, the role of the elites and the military, the impact of socio-economic factors and the importance of political culture.

>**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. Explores the association of societal gender role expectations with existing and proposed public policies that pertain to women's lives. Prerequisite: 6 hours of social 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.* 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 of, 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 352. Law and Political Power (3).** *General education further study course.* Focuses on the growth

of government power in the United States, with an emphasis on the decisions of the Supreme Court and other interpretations of the Constitution. Subjects examined may include economic regulation, federalism and states' rights, separation of powers, and war powers. Replaced POLS 551 effective fall 2012.

**POLS 353. Model United Nations II (3).** A workshop to prepare students to participate effectively in various model United Nations especially the Midwest Model U.N. in St. Louis.

>**POLS 356. Civil Liberties (3).** *General education further study course.* Focuses on the rights individuals and groups claim against the government of the United States, with emphasis on decisions of the Supreme Court. Areas of law covered include freedom of speech, freedom of religion, rights of the accused, privacy and abortion rights, and equal rights. Replaced POLS 552 effective fall 2012.

**POLS 357. Supreme Court (3).** Focuses on the U.S. Supreme Court as a political institution. Readings and class discussion examine judicial selection, judicial behavior, Supreme Court doctrine, and connections between the court and American politics broadly conceived. Readings include works of political science and judicial opinions. Students participate in simulated Supreme Court decisions.

>**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 are viewed, including on the leaders of the countries where violations of human rights have been openly perpetrated.

**POLS 365. Political Research Methods (3).** Introduces students to political research methods and tools. It is fundamentally about how to conduct research in political science. 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 are considered. Provides a basic introduction to qualitative and quantitative methods of research. This course is required for political science majors and is a prerequisite for POLS 600.

**POLS 375. Latin-American International Politics (3).** Reviews historical and current issues relating to the international relations of Latin America and the Caribbean. 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. Looks 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 electoral 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 in policies for promoting democracy in countries around the world.

>**POLS 390. Special Topics in Political Science (1-3).** *General education further study course.* An analysis of selected titles in political science in a seminar setting. Content varies depending upon the instructor. Repeatable for credit.

>**POLS 391. Special Topics in Political Science (1-3).** *General education further study course.* An analysis of selected titles in political science in a seminar setting. Content varies depending upon the instructor. Repeatable for credit.

>**POLS 395. 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. Replaced POLS 533 effective fall 2012.

>**POLS 396. Comparative Foreign Policy (3).** *General education further study course.* Examines the foreign policies and the decision-making structures and processes of various countries. Replaced POLS 534 effective fall 2012.

**POLS 398. Directed Readings (1-3).** For exceptional students to meet their needs and deficiencies. Repeatable for credit. Prerequisites: senior standing and departmental consent.

**POLS 399. Travel Seminar (1-4).** An interdisciplinary travel seminar that allows students to gain credit for the study of culture, art, literature, architecture, politics, society, science and/or economics while visiting historic places of interest. Students observe the political systems of the places they visit, analyze their dynamics, and demonstrate their understanding of those systems through a project which has the approval of the department's adviser.

>**POLS 444. Modern Political Theory (3).** *General education further study course.* Continues the study of Western political philosophy beginning with the decisive break with the classical tradition made by Machiavelli early in the 16th century. Studies major philosophers Hobbes, Locke and Rousseau, known as philosophers of the social contract who exercised a great influence on the creation of the American political system. Also studies Marx, a political thinker who moves strongly in the direction

of 20th century political philosophy. Philosophers of this period have collectively had a profound impact on political life in this century.

**POLS 481. Cooperative Education in Political Science (1-3).** Provides practical experience to complement the student's more formal political science curriculum. Student programs must be approved by the department. Offered Cr/Ncr only.

**POLS 490. Internship in Government/Politics (3-6).** (Washington, 6; Topeka, 3). Credit for an approved work experience in a public, quasi-public or governmental agency, including an academic component. Washington interns participate in the program co-sponsored with the University of Kansas for which an on-site coordinator is provided. Kansas legislative interns spend two days per week in Topeka while the legislature is in session. Both internships offered each spring semester. Prerequisites: sophomore or upper-class standing, POLS 121 or equivalent, and instructor's consent.

#### 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.

**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, Frederick Nietzsche and John Dewey. Covers the importance of these new philosophies upon political structures and issues.

**POLS 570. International Political Economy (3).** Cross-listed as ECON 570. Examination of policy decisions regarding exchanges of trade, money and labor that span national boundaries. Studies the interaction of politics and economics at the international level, as well as the modern history of the global economy. Economics often studies the material benefits and costs of different policies. Political science asks why these policies exist in the first place with a focus on who gets the benefits, who pays the costs, and how decisions about allocating benefits and costs are made.

**POLS 580. Administration and the Policy-Making Process (3).** The problems of government encountered in the administration of public policy. 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. For undergraduate

students only. Prerequisites: POLS 365, 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 WSU 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, 327 and 328). 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.

**Certificate Program in Community Psychology** This certificate program is designed to provide specialized skill training in community psychology for bachelor's level students planning to enter the workforce or enter graduate school after graduation. It provides specialized information that will improve employability or chances of advancement within their current job. The certificate program consists of six courses: five required and one optional. The curriculum is designed to equip students with the skills necessary

to function within a community psychology setting, such as a nonprofit organization seeking a technical assistant. The five required courses (16 credit hours) in their preferred sequence are:

|          |   |
|----------|---|
| Course   | .....hrs.                                   |
| PSY 323  | Social Psychology .....3                    |
| PSY 301  | Psychological Statistics .....3             |
| PSY 311  | Research Methods in Psy. ....4              |
| PSY 406  | Introduction to Community Psychology .....3 |
| PSY 428  | Field Work in Psychology.....3              |
| optional |   |
| PSY 608  | Special Investigation .....1-3              |

Eligible students need not be psychology majors, but must have a WSU GPA, both overall and in their psychology courses, of at least 3.000. Eligible students must apply to the community psychology coordinator upon completion of or current enrollment in PSY 301, 311, 323 and 406. Acceptance into the certificate program will allow enrollment in PSY 428.

### 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, personality and abnormalities of behavior. Course is a prerequisite for advanced and specialized courses in psychology.

**PSY 150. Workshop in Psychology (1-4).**

### 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 111.

**>PSY 322. Cognitive Psychology (3).** *General education further study course.* Presents a coherent picture of human memory and cognition within the framework of the 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 pro-social 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 327. Systems and Theories in Psychology (3).** Includes behaviorism, Gestalt psychology and structuralism. Attempts to develop the logical relations of these theories to each other as well as to common historical themes and current issues. Prerequisite: 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 AGE 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 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. Substance Use and Abuse (3).** *General education further study course.* Study of the individual, social and cultural aspects of alcohol and other legal and illegal drug use and abuse. Investigates both nonproblem and problem substance use, treatment of alcoholism and other drug addictions, prevention of abuse, addiction and abuse-related problems, and the needs of special populations. 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 on 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 as HMCD 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 practica 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 506. Psychology of Helping Relationships (3).** Cross-listed as NURS 567 and SOC 506. Introduces students to a psychological perspective on helping relationships that is 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 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.

**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 use 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 544. Abnormal Psychology (3).** An introductory survey of abnormalities of behavior. Examines definitions, causes, types and classifications of abnormal behavior. Covers various theories of abnormality, research evidence and various methods of

diagnosis and treatment. Presents hypotheses regarding prevention of abnormality. Prerequisite: PSY 324.

**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).** Introduction to state of the art programming environments designed for psychological research. Students learn how to perform basic statistical analyses, program visual and auditory experiments, and analyze data. Applications include such areas as mathematical modeling and creating experiments. Previous programming experience is encouraged, but not required. Prerequisite: 9 hours in the social sciences.

**PSY 608. Special Investigation (1-3).** Upon consultation with instructor, advanced students with adequate preparation may undertake original research or directed readings in psychological problems. Repeatable for a maximum of 6 credit hours. Requires consultation with, and approval by, appropriate adviser prior to registration. Prerequisites: 9 hours in psychology and instructor's consent.

**PSY 750. Psychology Workshop (1-3).** Specialized instruction, using various formats in selected topics and areas of psychology. Graded *S/U*.

Please see the WSU 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 110. **Old Testament (3).** *General education introductory course.* An introduction to the books of the Old Testament, including the histories of patriarchs and matriarchs, descriptions of Israelite religion and history, depictions of gender relations, and examples of wisdom literature.

>REL 115. **New Testament (3).** *General education introductory course.* Introduces students to the world of the New Testament, the second section of the Christian Bible and basis for Christian belief and practice. Examines the historical context and contemporary applications of the New Testament paying attention to how it fits into or challenges its social milieu, with specific focus on gender, authority and use of violence.

REL 150. **Workshop in Religion (4).**

#### Upper-Division Courses

REL 311. **Old Testament Topics (3).** An in-depth study of a major facet of the religion of the Hebrew Bible, such as prophecy, law, covenant, historiography and wisdom, or a genre of biblical literature, such as poetry or narrative.

REL 321. **New Testament Topics (3).** An in-depth study of a major facet of the religion of the New Testament such as the synoptic traditions, Johannine theology, Pauline theology, apocalyptic and canonization.

>REL 327. **Magic, Witchcraft, and Religion (3).** *General education further study 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 334. **Islam (3).** Cross-listed as WOMS 334. Introduction to Islam, one of the major world religions. Looks at how Islamic practices and beliefs affect the lives of people around the world. Specific attention is paid to the gendered dimensions of life, what it means to be a Muslim man or woman. Students have an opportunity to interview women and men from the Muslim community in Wichita. Replaced REL 380S.

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 384. **Paul (3).** Cross-listed as WOMS 384. Introduces students to the life, world and writings of the apostle Paul. His journey through the ancient Mediterranean world speaking to women and men about his understanding of the gospel is appreciated and used to examine the development of the early church. Highlights issues in Paul's letters such as women and gender, the socio-historical situation of the early church, and the question of authorship.

REL 420. **Women and the Bible (3).** Cross-listed as WOMS 420. Examines the roles and statuses of women in biblical narrative, poetry and law, as well as the position of women in various Near Eastern societies. Attention may be given to the ways in which later theologians, novelists and artists have refashioned and re-evaluated the biblical portrayal of women in their works.

REL 480. **Special Studies (3).** A concentrated study of a religious issue or text announced by the instructor when course is scheduled. Repeatable for credit. Prerequisite: instructor's consent.

REL 490. **Independent Work (1-3).** Designed for the student capable of doing advanced independent work in a specialized area of the study of religion that is not formally offered by the department. Repeatable for credit. Prerequisite: departmental consent.

#### Courses for Graduate/Undergraduate Credit

REL 780. **Special Topics in Religion (1-3).** Intensive study of topic(s) in religion. Discussion, reports and research projects. Repeatable for credit with departmental consent. Prerequisite: instructor's consent.

REL 790. **Independent Study (1-3).** For the student who is capable of doing graduate work in a specialized area of the study of religion not formally offered by the department. Repeatable for credit. Prerequisite: departmental consent.

## 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 BSW program prepares students for foundation-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 the major 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 acceptance into the practicum.

Requirements for program admission include a 2.000 overall GPA, completion of premajor and

prerequisite courses, and satisfactory completion of a noncredit orientation session. Students who receive a grade lower than C (2.000) in a required social work course must repeat that course and earn a C (2.000) 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 practica. This process is completed the year before admission into field practica. Information and application materials for admission into the major and to the field practica are available from the social work office and at [wichita.edu/socialwork](http://wichita.edu/socialwork).

Students should consult the academic probation and dismissal standards for Fairmount College of Liberal Arts and Sciences at the beginning of this chapter and the requirements for retention stated in the BSW Student Manual found online at: [wichita.edu/socialwork](http://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 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 302. **Techniques and Skills in Generalist Practice (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 304. **Social Diversity and Ethics (3).** *General education further study course.* Explores the dynamics and theories of oppression and diversity in society as applied to the helping professions. Applies ethics and values of the social work profession to advancing social justice. 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, sexuality and cultural components of sexuality.

**SCWK 360. Person in Society I (3).** Provides a beginning theoretical framework within which the integration of prior knowledge can be made regarding the 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 361. 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. Replaced SCWK 460.

**SCWK 400. Policy Assessment and Practice (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. Replaced SCWK 301. Prerequisites: POLS 121 or HIST 131 or 132; SCWK 300.

**SCWK 401. Generalist Practice With Groups (3).** Introduces practice competencies needed for working with groups. Presents small group theories, interventions and ethics necessary for beginning generalist social work practice. Prerequisites: SCWK 302 and admission to the major.

**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 admission to the major.

**SCWK 403. Generalist Practice With Individuals (3).** Introduces practice competencies needed for working with individuals. Presents assessment, intervention and evaluation for generalist practice. Focuses on processes, skills, techniques and ethics of social work practice with individuals. Prerequisite: SCWK 302 and admission to major.

**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. Prerequisites: SCWK 402 and admission to major.

**SCWK 407. Generalist Practice With Children and Families (3).** Introduces practice competencies needed for working with children and families. Special emphasis

on risk assessment, identification of environmental factors that contribute to neglect and violence in families, and legal procedures relevant to children and families. Prerequisites: SCWK 302 and admission to major.

**SCWK 451. Social Work Research (3).** Introduction to social work research methods. Qualitative and quantitative methodologies are examined. Students learn how to use research evidence to inform and improve practice.

**SCWK 470. Generalist Practice with Organizations and Communities (3).** Introduces practice competencies needed for working with organizations and communities. Presents macro practice roles and skills for beginning-level social work interventions with organization and community systems. Prerequisites: SCWK 302 and admission to major.

**SCWK 481. Cooperative Education in Social Work (1-4).** A practical experience with public and private sector agencies which addresses 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/NCr*.

#### Courses for Graduate/Undergraduate Credit

**SCWK 531. Social Work Practice in Addictions (3).** Prepares students for social work practice in the field of substance abuse and to intervene effectively when working in other areas where addictions are a concern. Includes content on the epidemiology of alcoholism and drug addiction, intervention approaches and prevention, public policy toward the regulation of drugs and their consequences, and the treatment of chemical dependency among special populations. Included in the curriculum to fulfill requirements for the Licensed Addiction Counselor (LAC) with the Behavioral Sciences Regulatory Board (BSRB). The program requires an addiction treatment focused practicum. Interested students should be advised by the social work adviser assigned to this program. Replaces SCWK 610V effective fall 2013.

**SCWK 532. Pharmacology and Drug Classification in Social Work Practice (3).** Prepares students for social work practice in the field of substance abuse and to intervene effectively when working in other areas where addiction may be a concern. It includes psychological, physiological and sociological effects of mood altering substances and behaviors and their implications for the addiction process. An emphasis on pharmacological effects of tolerance, dependency/withdrawal, cross addiction and drug addiction are covered. Understanding common patterns and causes of drug use among subcultures of diverse populations is included. Included in the curriculum to fulfill requirements for the Licensed Addiction Counselor (LAC) with the Behavioral Sciences Regulatory Board (BSRB). The program requires an addiction treatment focused practicum. Interested students should be advised by the social work adviser assigned to this program. Replaces SCWK 611A effective fall 2013.

**>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 611. Special Topics in Social Work (1-3).** Special 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. Prerequisite: degree admission to MSW program. 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. Prerequisites: SCWK 700, degree admission to MSW program. Corequisite: SCWK 721.

**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 transaction 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. Prerequisite: degree admission to MSW program. Corequisite: SCWK 717.

**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. Prerequisites: SCWK 710, degree admission to MSW program. Corequisite: SCWK 751.

**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 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: degree admission to the MSW program. Corequisite: SCWK 710.

**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 730. Graduate Topics in Social Work (1-3).** Specialized instruction using a variable format in a social work relevant subject. Repeatable.

**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 732. Social Work Practice in the Schools (3).** Conveys an understanding of systematic intervention in schools using various intervention modalities. Focuses on the roles of social workers in schools, including provision of direct service, consultation, advocacy, program development and evaluation, as well as liaison functions with families and community systems. Students integrate an understanding of child development, familial and school crises that affect child development and the importance of the social worker/parent relationship. Prerequisite: degree admission to MSW program.

**SCWK 740. Graduate Topics in Social Work (1-3).** Specialized instruction using a variable format in a social work relevant subject. Repeatable.

**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: degree admission to the MSW program. Corequisite: SCWK 712.

**SCWK 760. Advanced Generalist Practice Seminar I (1).** Builds on the graduate social work student's knowledge, experience and skills by integrating social work theory, values, ethics, methodology and literature. It is based in the generalist perspective and prepares students for the advanced generalist practice curriculum. This course is a prerequisite to all 800-level MSW core courses and must be completed in the summer before beginning the advanced generalist 800-level courses. Prerequisite: degree admission to 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 WSU 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 501 | Sociological Statistics.....3       |
| SOC 512 | Measurement and Analysis.....4      |
| SOC 545 | Sociological Theory .....3          |

In addition to the five courses listed above, majors also must enroll in 15 hours of electives to complete the 31-hour major. At least 9 hours of sociology coursework must be earned at Wichita State. With this flexibility, students can select specific areas of concentration such as deviant behavior, family, gender, aging studies, 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 3 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).** *General education further study course.* 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 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.

**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 relationship types 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).** Provides students with a general understanding of the core concepts and techniques used in designing and executing a social research project. Special emphasis is given to the major data collection techniques commonly used by sociologists. Prerequisite: SOC 111.

**>SOC 315. Marriage and Families (3).** *General education further study course.* 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. Prerequisite: SOC 111.

**>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 within the context of the assumption that humans are a social product. Prerequisite: SOC 111.

>**SOC 325. Parenting (3).** *General education further study course.* Examines the role of parenting in American society from a number of different perspectives. Focuses on the major developmental changes facing couples as they move through the family life cycle. Covers the decision to have children, remaining 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 rapidly growing 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 Foundation 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. Primary focus on the symbolic interactionist perspective in sociology. The goal is for students to understand how social interaction influences their daily activities. Includes the meaning and importance of the symbol, the nature and development of self, social roles and their influence on individuals, and the social construction of society. Prerequisite: SOC 111.

**SOC 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 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 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 AGE 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 AGE 520. Analyzes the families and family systems of older people. Emphasizes demographic and historical changes, caregiving, and intergenerational exchanges and relationships. Prerequisite: SOC 111 or AGE 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 528. Sociology of Education (3).** *General education further study course.* Introduction to sociological perspectives on the purpose of schools and their connection to the larger society. Examines the multiple functions and goals of education, stratification between schools and within schools, and inequalities of race, social class and gender. Other topics include youth culture, policy issues and long-term consequences of education for employment and income, relationships, health and crime. Replaced SOC 399S. 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).** *General education further study course.* 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 AGE 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 AGE 100 or junior standing.

**SOC 545. Sociological Theory (3).** A comprehensive survey of classical sociological theory. Emphasis on theories relevant to the development of sociology. Generally offered fall semester only. 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 are 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 WSU 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 engagement. 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 professional 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, Environmental Finance Center* and the *Kansas Public Finance Center*. Through these units, faculty, staff and students blend teaching, research and community engagement in the interdisciplinary field of 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 as well as an opportunity to be directly involved with research and service projects. Financial aid in the form of graduate assistantships and fellowships is awarded competitively on the recommendation of the faculty in the Hugo Wall School of Urban and Public Affairs.

Graduate assistants work directly with faculty and professional staff on research and community service projects through the Center for Urban Studies, Environmental Finance Center, and the Kansas Public Finance Center. Graduate assistants work 20 hours per week with faculty and staff in the school's 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 nonprofit 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.

**PADM 651. Dispute Resolution (3).** Examines a range of topics including causation, typologies, communication, 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.

**PADM 688. Urban Economics (3).** Cross-listed as ECON 688. A survey of the economic structure and problems of urban areas on both the microeconomic and macroeconomic levels. Stresses the application of regional economic analysis in the study of urban areas as economic regions. Prerequisites: ECON 201 and 202, or ECON 800, and junior standing.

**PADM 700. Urban Affairs (3).** A study of the policy issues faced by local government in an urban setting from a multidisciplinary point of view.

**PADM 702. Research Methods (3).** Cross-listed as AGE 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.

**PADM 710. Public Sector Organizational Theory and Behavior (3).** Cross-listed as POLS 710. Reviews the scope of the field of public administration, including a survey of key concepts and schools of thought underlying the field. Examines issues shaping the future development of the field.

**PADM 725. Public Management of Human Resources (3).** Cross-listed as POLS 725. Surveys the major areas of management of human resources in the public sector. Includes hiring, training, evaluation and pay promotion policies. Emphasizes the laws governing public personnel management, and on the unique merit, equal employment opportunity, productivity, unionization and collective bargaining problems found in the public sector.

**PADM 745. Public and Nonprofit Governance (3).** Designed to help students develop an understanding of: (a) the governmental and political complexities within which public administration operates; (b) the nonprofit sector—including its major public-benefit sub components—and its role in the public administration environment; and (c) challenges facing both public and nongovernmental actors. Students should develop a working awareness of the significant concepts and components of the governance, politics and institutions, that enables them to analyze forces of change in this challenging environment.

**PADM 750. Public Administration Workshops (1–3).** Specialized instruction using variable formats in a public administration or urban affairs relevant subject. Repeatable for credit.

**PADM 755. Special Topics in Urban and Public Affairs (3).** Provides students with an opportunity to engage in advanced study in topics that are of immediate concern and arise only occasionally. Content varies with issues that arise, student needs, and faculty expertise. Directed to Master of Public Administration students. May be repeated if topics are different. Prerequisite: instructor's consent.

**PADM 760. State and Local Economic Development (3).** Explores the roles of state and local governments and officials in economic development through the use of case studies. Examines financing in economic development from the perspectives of public purpose and community objectives.

**PADM 765. Public Sector Economics (3).** Cross-listed as ECON 765. An analysis of fiscal institutions and decision making in the public sector of the American economy, budget planning and execution, taxation, debt and fiscal policy. Prerequisites: ECON 201 and 202 or instructor's consent.

**PADM 775. State and Local Government Law (3).** Exposes students to the legal principles which undergird the foundation of governmental operation and administration.

**PADM 785. Public Works Administration (3).** Introduces public works administration and management. Includes discussion of public works professionals, public works organizations and institutions, infrastructure planning, policy and project analysis; procurement, purchasing and contract administration; geographic information systems; and transportation, water, waste water and surface water system construction, maintenance and replacement.

**PADM 798. Independent Study (1–3).** For graduate students to pursue research in areas not normally covered in coursework. Repeatable for credit with departmental consent. Prerequisite: departmental consent.

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

## Women's Studies (WOMS)

As a department in Fairmount College of Liberal Arts and Sciences, the Center for Women's Studies offers a major and minor in women's studies. Students receive academic training and leadership skills with the goal of improving women's lives in domestic and professional arenas. The analysis of gender, race/ethnicity, class and sexuality is central to the major. Cross-cultural and international perspectives represent the department's commitment to move beyond culturally and nationally parochial understanding of women's identities and struggles. Women's studies is interdisciplinary in approach, and the major reflects a thematic rather than disciplinary focus. The four core areas—internationalism, representation and media, social issues, and religion and thought—provide critical understanding of women, culture and society. Students may elect to double-major in women's studies and other fields in the liberal arts and sciences or other

colleges. The major prepares students for careers in a variety of fields.

**Major.** The major in women's studies consists of 30 hours:

1. Required core—12 hrs.: WOMS 190, 287, 387, 587;
2. Core area—9 hrs. (3 courses) taken within a core area; and
3. Electives—9 hrs. (3 courses) in any of the four core areas, taken in any combination.

One course must be a diversity course such as WOMS 334, 370, 385, 482, 513, 514, 532, 542, 579, or 588.

Of the 30 credit hours, no more than 3 hours in courses numbered 100–199 may be counted toward the major except WOMS 190, REL 110 and REL 115. Students are strongly encouraged to take WOMS 190 and WOMS 287 as early as possible in the major.

### Required Core:

- WOMS 190, Women in Popular Culture
- WOMS 287, Women in Society: Social Issues
- WOMS 387, Women in Society: Cultural Images
- WOMS 587, Theories of Feminism

### Core Areas:

Some courses may appear in two core areas if course content is appropriate.

### Core Area I: Internationalism

- WOMS/REL 334, Islam
- WOMS/REL 370, Women in World Religions
- WOMS 482, Latinas in Culture and Society
- WOMS 513, Women in Africa
- WOMS 514, Women in the Middle East
- WOMS/HIST 532, Women in Ethnic America
- WOMS/ANTH 542, Women in Other Cultures
- WOMS/HIST/ETHS 579, Asian Women in Modern History
- WOMS 588, Gender, Race and the West/East Divide

### Core Area II: Representation and Media

- WOMS 330/ENGL 336, Women's Personal Narratives
- WOMS 382, Feminism and Girl Culture
- WOMS 385, Intro. To LGBT Studies
- WOMS 510, Hollywood Melodrama
- WOMS 523, Feminist Film Criticism
- WOMS/ENGL 536, Writing by Women
- WOMS 537, Contemporary Women's Drama
- WOMS 585, The Femme Fatale in Film Noir

### Core Area III: Social Issues

- WOMS/SOC 306, Intro. to Gender Studies
- WOMS/SOC 316, Men and Masculinities
- WOMS/POLS 325, Women in the Political System
- WOMS/SCWK 340, Human Sexuality
- WOMS 345, Women and Dependencies
- WOMS 380, Special Topics (1–3)
- WOMS 385, Intro. To LGBT Studies
- WOMS 386, Women and Sports
- WOMS 533, Women and the Law
- WOMS/PSY 534, Psychology of Women

WOMS/SCWK 541, Women, Children and Poverty

### Core Area IV: Religion and Thought

- REL 110, Old Testament
- REL 115, New Testament
- PHIL 345, Philosophy of Sex and Love
- WOMS/REL 334, Islam
- WOMS/PHIL 338, Philosophy of Feminism
- WOMS/REL 370, Women in World Religions
- WOMS/REL 384, Paul
- WOMS/REL 420, Women and the Bible
- WOMS 586, Gender, Race and Knowledge

**Minor.** The minor in women's studies consists of a minimum of 15 hours of women's studies courses, including WOMS 287 and 387. Restrictions on 100-level courses in the major (see above) also apply to the minor.

### 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 *Cr/NCr*.

**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 *Cr/NCr*.

**WOMS 150J. Sexual Assault Issues (1).** Workshop: Explores the cultural myths and stereotypes about sexual assault, the legal system, methods of self-protection, community resources providing help for victims, and other related issues. Primary focus is on education to not only prevent, but eradicate sexual assault.

**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. Encourages the critical analysis of why and how these popular representations are politically and socially significant in shaping society's perceptions of women. Also explores women's popular genres.

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. Explores the association of societal gender role expectations with existing and proposed public policies that pertain to women's lives. Prerequisite: 6 hours of social science or instructor's consent.

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, 102.

WOMS 334. **Islam (3).** Cross-listed as REL 334. Introduction to Islam, one of the major world religions. Looks at how Islamic practices and beliefs affect the lives of people around the world. Specific attention is paid to the gendered dimensions of life, what it means to be a Muslim man or woman. Students have an opportunity to interview women and men from the Muslim community in Wichita.

>WOMS 338. **Philosophy of Feminism (3).** *General education further study course.* Cross-listed as PHIL 338.

WOMS 340. **Human Sexuality (3).** Cross-listed as SCWK 340.

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 codependency.

>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 380. **Special Topics (1-3).** Focuses on intermediate topics of interest to women's studies.

WOMS 381. **Special Topics (1-3).**

WOMS 382. **Feminism and Girl Culture (3).** Addresses issues of girl culture as a part of Third Wave feminism in an engagement with earlier forms of feminism. The media both shape and reflect the culture we live in. Current representations of female empowerment are quite different from the sparse stereotypes of the 1970s. Examines and analyzes to what extent those representations that are a part of girl culture can be deemed *feminist* and thus a challenge to patriarchal conceptions of girls (or girlhood). Emphasizes critical analysis and should enable critique of visual culture as well as questioning the culture in ways not previously done. Topics include: Wonder Woman (sheroes), girl talk (Sex in the City), tough girls (Buffy the Vampire Slayer), video game vixens, and feminist girl-zines (Bitch Magazine). Replaced WOMS 380K.

WOMS 384. **Paul (3).** Cross-listed as REL 384. Introduces students to the life, world and writings of the apostle Paul. His journey through the ancient Mediterranean world speaking to women and men about his understanding of the gospel is appreciated and used to examine the development of the early church. Highlights issues in Paul's letters such as women and gender, the socio-historical situation of the early church, and the question of authorship.

WOMS 385. **Introduction to LGBT Studies (3).** Examines a broad range of contemporary gay, lesbian, bisexual and transgender issues in various contexts including literary, sociological, political, racial, socio-economic and sexual. Replaced WOMS 380O.

WOMS 386. **Women and Sports (3).** Examines the relationship of gender to definitions of athleticism as well as how women have negotiated the contradiction between the cultural equation of masculinity and athleticism. Special attention is given to Title IX and its role in increasing benefits and opportunities for U.S. women to play sports as well as the impact it has had on the development of intercollegiate women's athletics. Also considers the impact of homophobia on women's sports, the sexualization of women athletes, and new questions raised for sex-segregated sports by the fluidity of biological sex and transgendered athletes. Replaced WOMS 380Y.

>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.* Explores women's issues from a global perspective in relation to policies approved by the International Women's Decade conferences of the United Nations. Emphasizes understanding the impact of nationalism, race, class and cultural values in creating obstacles to women's full participation in society. Explores strategies for achieving full human rights for women. Prerequisites: one course in women's studies and one course in history or political science.

WOMS 420. **Women and the Bible (3).** Cross-listed as REL 420. Examines the roles and statuses of women in biblical narrative, poetry and law, as well as the position of women in various Near Eastern societies. Attention may be given to the ways in which later theologians, novelists and artists have refashioned and re-evaluated the biblical portrayal of women in their works.

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 are 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, and 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).** *General education issues and perspectives course.* Cross-listed as PSY 534.

**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 579. Asian Women in Modern History (3).** Cross-listed as HIST 579 and ETHS 579. Examines women's historical and contemporary experiences in Asian America and eight major countries in modern Asia. Covers topics on Asian women's activism in relation to nationalism and women's rights. Investigates Asian women's roles and statuses in the family and society and their educational attainment and contributions to the export-oriented industrialization of the Asia-Pacific region. Examines the intra-regional migration of female guest workers among various countries in Asia. Traces the ways in which the changes in immigration laws during the 20th century affect patterns of Asian women's migration to the United States. Introduces writing that integrates Asian women's lives and Asian American experiences into the discourses on ethnicity, national origin, class, gender and sexual orientation in the United States and the Asia-Pacific region. Replaced WOMS 379.

**WOMS 580. Special Topics (1–3).** Focuses on advanced topics of interest to women's studies.

**WOMS 585. The Femme Fatale in Film Noir (3).** From the 1970s to the present, feminism has exerted a profound influence on theories of cinema. By focusing on film noir as a genre expressed visually and thematically, this course explores various filmic representations of women, and how and why these representations are politically, socially and theoretically significant. We apply various critical methods of analysis (psychoanalysis, ideology

critique, close textual analysis, narrative, style/genre) to approach women's representation, in particular, the femme fatale (dark lady, evil seductress) within the classic film noir era which occurred between 1944 and 1958. Replaced WOMS 580E.

>WOMS 586. **Gender, Race and Knowledge (3).** *General education issues and perspectives course.* Examines construction of objects that lie at the boundary between popular and academic or "official" knowledge (understanding of objects, people, events and activities). Examines those objects within gender and race frameworks in women's studies. Thematically organized, problem focused and methodologically interdisciplinary. Past topics include "America, Post 9/11," "A Genealogy of the Middle East," science, modernity and anthropology.

**WOMS 587. Theories of Feminism (3).** Because feminism is not a single ideological stance or perspective, course examines a variety of ideas underlying feminist cultural critiques and visions for social change. Discusses the contribution of women's studies to various academic disciplines. Prerequisites: WOMS 287, 387, or 6 hours of women's studies courses, or instructor's consent.

>WOMS 588. **Gender, Race and the West/East Divide (3).** *General education issues and perspectives course.* Examines critically the role of gender and race in the making of a supposed essential divide between *the West* and *the East*. Students are introduced to Edward Said's concept of Orientalism and the field of critique that targets how Europe and the U.S. craft an identity *the West* via its other, called variously, *the Orient*, *Islam*, *the Muslim world*, and *the Arab world*. Questions explored include: What is Orientalism? What is the relationship between colonialism/imperialism and the representation of *the Orient* or *the East*? How, for whom, and for what purposes do gender and race matter in this construct of a divide between West and East? These questions are examined across genres and media—i.e., in travel accounts, film, literature, policy making and news reportage.

**WOMS 635. Leadership Techniques for Women (3).** Cross-listed as COMM 635. Provides the female student experience in decision making and improves skills in leadership through role playing and exercise in group dynamics.

**WOMS 701. Selected Topics in Women's Studies (3).** Repeatable for credit up to 6 hours. Prerequisite: departmental consent.

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

The following abbreviations are used in the course descriptions; R stands for lecture and L for laboratory. For example, 4R; 2L means 4 hours of lecture and 2 hours of lab.

# University Faculty—2013–2014 (as of January 2013)

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.

**Abaya, Joel O.**, Assistant Professor, Department of Counseling, Leadership, Education and School Psychology (2012). BEd, University of Nairobi, 1993; MEd, University of New Brunswick-Fredericton, 2002; PhD, University of Missouri-Columbia, 2011.

**Abbott, Terilyn**, Academic Lecturer, Department of Modern and Classical Languages (2011). BA, Brigham Young University, 2003; MA, Wichita State University, 2010.

**Abdinnour, Suhair**, 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.

**Abi-Mikhael, S. Sirana**, Academic Lecturer, Department of Modern and Classical Languages (2012). BA, University of Beirut, 1986

**Acker, Andrew F.**, Professor, Department of Mathematics, Statistics and Physics (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.

**Adler, Edward T.**, Associate Professor, School of Art and Design (2005). BA, Lewis and Clark College, 1993; MFA, Ohio University, 2002.

**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.

**Alagic, Mara**, Associate Professor, Department of Curriculum and Instruction (1999). BA/MA, University of Belgrade, Yugoslavia, 1975; PhD, 1985.

**Albaid, Abdelhamid M.**, Instructor, Department of Mathematics, Statistics and Physics (2012). BS, Jordan University of Science and Technology, 2001; MS, University of Jordan, 2004; PhD, Oklahoma State University, 2011.

**Alexander, Ryan J.**, Assistant Professor, School of Community Affairs (2010). BS, South Dakota State University, 1997; MA, Washburn University (2004); PhD, Kansas State University, 2011.

**Allen, Neal R.**, Assistant Professor, Department of Political Science (2011). BA, DePauw University, 1998; MA, University of Texas-Austin, 2001; PhD, 2009.

**Alloway, Laurie B.**, Clinical Educator, Department of Medical Laboratory Sciences (2012). BA, Newman University, 1996; BA, Wichita State University, 1997; MS, Friends University, 2010.

**Anderson, Kelly L.**, Associate Professor, Department of Dental Hygiene (2001). AS, Wichita State University, 1982; BHS, 1983; MHS, 1994.

**Anthony, Adam**, Instructor, Department of Mathematics, Statistics and Physics (2008). BS, Kansas State University, 2004; MS, Wichita State University, 2008.

**Aranovskaya, Alla L.**, Assistant Professor, School of Music (2010). BM, 1985, St. Petersburg Conservatory of Music – Russia; MM-DM, 1988.

**Aravinthan, Visvakumar**, Assistant Professor, Department of Electrical Engineering and Computer Science (2011). BS, University of Moratuwa-Sri Lanka, 2002; MS, 2005; MS, Wichita State University, 2006; PhD, 2010.

**Armstrong, Richard N.**, Associate Professor and Director of Basic Oral Communication Program, Elliott School of Communication (1987). BA, Southern Utah University, 1972; MA, Brigham Young University, 1974; PhD, Bowling Green State University, 1978.

**Arnold, Stephen D.**, Associate Dean for Academic and Student Affairs, College of Health Professions; Professor, Department of Public Health Sciences (2011). BS, New Mexico State University, 1984; PhD, Colorado State University, 1989.

**Arrasmith, Mark B.**, Information System Specialist and Mathematics Educator, Department of Mathematics, Statistics and Physics (1997). BS, Wichita State University, 1994; MS, 1996.

**Asaduzzaman, Abu**, Assistant Professor, Electrical Engineering and Computer Science (2010). BS, Bangladesh University of Engineering and Technology, 1993; MS, Florida Atlantic University, 1997; PhD, 2009.

**Ashworth, Sherry L.**, ESL Specialist, Intensive English Language Center (1990). BA, Wichita State University, 1981; MEd, 1985.

**Asmatulu, Ramazan**, Associate Professor, Department of Mechanical Engineering (2006). BS, Istanbul Technical University, 1992; MS, 1995; PhD, Virginia Polytechnic Institute and State University, 2001.

**Atwood, Stephen L.**, Academic Lecturer, School of Art and Design (2009). BFA, Wichita State University, 2002; MFA, 2005.

**Azpuru, Dinorah R.**, Associate Professor, Department of Political Science (2005). Certificate, University Institute of Development, Geneva-Switzerland, 1986; Diploma, Uppsala University-Sweden, 1989; MA, University Rafael Landivar-Guatemala, 1993; MA, University of Pittsburgh, 2000; PhD, 2003.

**Babnich, Judith M.**, Professor, School of Performing Arts (1984). BA, Edgecliff College, 1974; MA, University of Cincinnati, 1976; PhD, University of California-Los Angeles, 1981.

**Badgett, Barry T.**, Associate Professor and Director, School of Art and Design (1993). BFA, Virginia Commonwealth University-Richmond, 1985; MFA, Syracuse University, 1990.

**Bagai, Rajiv**, Associate Professor, Department of Electrical Engineering and Computer Science (1990). MS, Birla Institute of Technology and Science, 1983; MS, University of Victoria, 1987; PhD, 1991.

**Bailey, Hetty S.**, Academic Lecturer, Department of Modern and Classical Languages and Literatures (2008). BA, Wichita State University, 1969; MEd, 1988.

**Baker, Carl Edward**, Associate Professor and Technical Director, School of Performing Arts (2005). BA, Wichita State University, 1988; MFA, Ohio University, 1991.

**Baker, Danette**, Academic Lecturer, School of Performing Arts (2001, 2011). BA, Wichita State University, 1988; MFA, Ohio University, 1992.

**Baldridge, Wilson R.**, Professor and Chairperson, Department of Modern and Classical Languages and Literatures (1984). BA, Denison University, 1973; PhD, State University of New York-Buffalo, 1982.

**Ballard-Reisch, Deborah**, Professor and Kansas Health Foundation Distinguished Chair in Strategic Communication, Elliott School of Communication (2007). BA, Bowling Green State University, 1979; MA, Ohio State University, 1980; PhD, Bowling Green State University, 1983.

**Banerjee, Arijit**, Academic Lecturer, Department of Mathematics, Statistics and Physics (2012). BS, St. Xavier's College-Calcutta, 2002; MS, University of Calcutta, 2003; PhD, Wichita State University, 2011.

**Banke, Andrea E.**, Assistant Professor, School of Music (2005). BM, University of Rochester Eastman School of Music, 1995; MM, University of Minnesota, 1998.

**Bann, James G.**, Associate Professor, Department of Chemistry (2004). BS, Ft. Lewis College, 1993; PhD, Oregon Health Sciences University, 2000.

**Bannister, Andra J.**, Professor, School of Community Affairs (1995). BS, University of Illinois Champaign-Urbana, 1989; MA, Indiana University-Bloomington, 1990; PhD, Michigan State University, 1995.

**Bardo, John W.**, President and Professor, (1973, 2012). BA, University of Cincinnati, 1970; MA, Ohio University, 1971; PhD, Ohio State University, 1973.

**Barkan, Joshua M.**, Assistant Professor, Department of English (2012). BA, Yale University, 1991; MFA, University of Iowa, 1995.

**Barut, Mehmet**, Associate Professor, Department of Finance, Real Estate, and Decision Sciences (2000). BS, Istanbul Technical University, 1988; MS, 1991; PhD, Clemson University, 1999.

**Baxter, Deborah E.**, Associate Professor, School of Music (1984). BM, University of Kansas, 1974; MM, University of Missouri-Kansas City, 1981; DMA, 1988.

**Beachy, Jennifer L.**, Academic Lecturer, Intensive English Language Center (2013). MEd, Wichita State University, 2006.

**Beamer, Patricia E.**, Clinical Educator, School of Nursing (2012). AS, Butler Community College, 1989; BSN, Wichita State University, 1992; MSN, 2012.

**Beck, Moriah R.**, Assistant Professor, Department of Chemistry (2011). BS, Eastern Kentucky University, 1999; PhD, Washington University, 2007.

**Bees, Julie I.**, Professor, School of Music (1986). BM, Peabody Conservatory, 1974; DMA, University of Colorado, 1982.

**Beeson, Jodie G.**, Assistant Professor, School of Community Affairs (2009). BA, Bethel College 1989; MA, Wichita State University, 2006; PhD, 2009.

**Behrman, Elizabeth C.**, Professor, Department of Mathematics, Statistics and Physics (1990). ScB, Brown University, 1979; MS, University of Illinois, 1981; PhD, 1985.

- Belt, Lisa D.**, Clinical Educator, Department of Dental Hygiene (2006). AS, Seward Community College, 1980; AS, Wichita State University, 1982; BHS, 1982.
- Bennett, Tina L.**, Professor, Department of English (1978). BFA, California Institute of the Arts, 1973; MA, University of Southern California, 1976; PhD, 1978.
- Bereman, Nancy A.**, Associate Professor, Department of Management, (1980). BA, Wichita State University, 1969; MBA, 1974; PhD, University of Minnesota, 1983.
- Bergen, Wesley J.**, Visiting Associate Professor, Department of Women's Studies and Religion (1997). BA, University of Manitoba, 1983; MDiv, Lutheran Theological Seminary, 1985; STM, St. Andrew's College, 1989; PhD, University of Toronto Emmanuel College of Victoria, 1996.
- Bergman, Daniel J.**, Assistant Professor, Department of Curriculum and Instruction (2007). BS, University of Nebraska-Lincoln, 1999; MA, 2002; MA, University of Nebraska-Kearney, 2004; PhD, Iowa State University, 2007.
- Bernstorf, Elaine D.**, Professor, School of Music (1992). BME, Wichita State University, 1976; MME, 1978; PhD, 1993.
- Besthorn, Fred H.**, Associate Professor and MSW Program Director, School of Social Work (2010). BS, Sterling College, 1973; MDiv, Grace Theological Seminary, 1978; MSW, University of Kansas, 1991; PhD, 2001.
- Bett, Carol J.**, Instructor, School of Nursing (2009). BSN, Point Loma Nazarene University, 1979; MA, Nazarene Theological Seminary, 1984; MN, University of Phoenix, 1996.
- Billings, Dorothy K.**, Professor, Department of Anthropology (1968). BA, University of Wisconsin-Madison, 1955; PhD, University of Sydney, 1972.
- Birzer, Michael L.**, Professor, Director and Graduate Coordinator, School of Community Affairs (2004). BS, Wichita State University, 1989; M Admin of Justice, 1994; EdD, Oklahoma State University, 2000.
- Bischoff, William D.**, Professor, Department of Geology (1984). BA, DePauw University, 1979; MS, Northwestern University, 1982; PhD, 1985.
- Black, Phillip C.**, Assistant Professor, School of Music (1986). BM, Ball State University, 1977; MM, University of New Mexico, 1980.
- Blackburn, Gemma A.**, Assistant Professor and Library Systems Developer, University Libraries (2008). BA, Wichita State University, 2001; MLIS, Emporia State University, 2007.
- Blakeslee, Donald J.**, Professor, Department of Anthropology (1976). BA, University of Nebraska-Lincoln, 1969; MA, 1971; PhD, University of Wisconsin-Milwaukee, 1975.
- Boehme, Rodney D.**, Associate Professor, Department of Finance, Real Estate, and Decision Sciences (2004). BS, Texas A&M, 1984; MBA, Baylor University, 1993; PhD, University of Houston, 1998.
- Bohn, Catherine M.**, Assistant Professor, Department of Counseling, Leadership, Education and School Psychology (2007). BA, University of Notre Dame, 2002; MA, University of Minnesota, 2005; PhD, 2007.
- Bolin, Brien L.**, Associate Professor and Director, School of Social Work (1999). BS, Oklahoma State University, 1985; MS, 1988; MSW, Walla Walla College, 1998; PhD, Oklahoma State University, 1994.
- Bomgardner, Richard K.**, Instructor and Athletic Training Education Coordinator, Department of Human Performance Studies (2003). BA, Wichita State University, 1987; MS, Fort Hays State University, 1991.
- Bousfield, George R.**, Jones Distinguished Professor, Department of Biological Sciences (1991). BS, Saginaw Valley State University, 1974; MA, Indiana University, 1976; PhD, 1981.
- Bradfield, Katherine A.**, Fairmount Lecturer, Department of Philosophy (2012). BA, Wichita State University, 1993; MA, Washington University-St. Louis, 2001.
- Brady, Stephen W.**, Associate Professor and College Algebra Program Director, Department of Mathematics, Statistics and Physics (1967). AB, Indiana University 1963; AM, 1965; PhD, 1968.
- Bray, Susan S.**, Assistant Professor, Department of Counseling, Leadership, Education and School Psychology (2012). BS, Louisiana State University-Shreveport, 1984; MA, Louisiana Tech University, 1996; MS, Louisiana State University, 2004; PhD, Texas A&M University, 2009.
- Brickell, Jean M.**, Associate Professor and Chairperson, Department of Medical Laboratory Sciences (2008). BA, University of Colorado, 1970; MS, University of Alaska, 1986; EdD, Washington State University, 1993. Board Certified MT.
- Broberg, J. Christian.**, Assistant Professor, Department of Management (2008). BA, Brigham Young University, 1995; MBA, University of Arizona, 1998; PhD, Texas Tech University, 2010.
- Brooks, Christopher K.**, Professor and Graduate Studies Coordinator, Department of English (1989). BA, Indiana University, 1977; MA, Indiana State University, 1979; PhD, Purdue University, 1987.
- Brown, Alison McKenney**, Fairmount Lecturer, School of Community Affairs (1998). BS, Kansas State University, 1986; MPA, Wichita State University, 1993; JD, University of Kansas, 1993. Admission to State Bar of Kansas, 1993.
- Brown, Douglas Randl**, Senior Fellow, Elliott School of Communication (2002). BS, University of North Texas, 1969.
- Brown, Gina R.**, Assistant Professor, Physician Assistant Program (2009). BS, Wichita State University, 2004; MPAS, University of Nebraska-Omaha, 2009.
- Brown, Janet B.**, Associate Professor and Education Librarian, University Libraries (1980). BA, Wichita State University, 1974; MLS, Emporia State University, 1975.
- Brown, Karen L.**, Associate Professor, Department of Biological Sciences (1982). BA, Miami University-Ohio, 1974; MS, 1976; PhD, University of Georgia, 1981.
- Bruce, Travis C.**, Assistant Professor, Department of History (2012). BA, Portland State University, 1997; Licentiate, Université de Poitiers-France, 1998; Maîtrise, 1999; MA, 2000; PhD, Western Michigan University, 2010.
- Bryant, Jeffrey J.**, Professor and BKD Faculty Fellow, School of Accountancy (1993). BBA, Wichita State University, 1977; JD, Washburn University School of Law, 1980; PhD, Texas Tech University, 1994. CPA-Kansas.
- Bubp, Robert R. Jr.**, Associate Professor, School of Art and Design (2002). BFA, University of Georgia, 1993; MFA, Georgia State University, 2002.
- Buell, Gregory J.**, Director of Training and Associate Director of Counseling, Counseling and Testing Center; Assistant Professor, Department of Psychology (1975). BS, University of Iowa, 1968; MA, Southern Illinois University, 1972; PhD, 1975.
- Bukhgueym, Alexandre L.**, Professor, Department of Mathematics, Statistics and Physics (2002). MS, Novosibirsk State University, 1971; Candidate of Sciences (PhD), Russian Academy of Sciences Computing Center-Siberian Division, 1974; Doctor of Sciences (PhD), 1984. Bukonda, Ngoyi K. Zacharie, Associate Professor, Department of Public Health Sciences (2007). BS, National University of Zaire, 1981; MPH, University of Minnesota, 1989; PhD, 1994.
- Bunton, Patricia A.**, Instructor and Academic Coordinator, Physician Assistant Program (1990). BSN, Wichita State University, 1981; BHS, 1987; MA, Friends University, 1994; MS, Kansas State University, 2001.
- Burdsal, Charles A., Jr.**, Professor, Department of Psychology; Director, Social Sciences Research Laboratory (1970, 1972). BA, Texas Tech University, 1966; PhD, 1971.
- Burgert, Doris P.**, Instructor, Department of Counseling, Education and School Psychology (1984). BA, University of Kansas, 1975; BS, 1976; MA, Wichita State University, 1991; M Ed, 1995.
- Burke, Collette E.**, Associate Professor, Department of Geology (1983). BA, St. Mary of the Woods College, 1973; MS, Akron University, 1981; PhD, University of Wisconsin-Milwaukee, 1983.
- Burkett, Gail E.**, Fairmount Lecturer and Undergraduate Coordinator, Department of Modern and Classical Languages and Literatures (1999). BA, Wichita State University, 1975.
- Burns, Dennis H.**, Professor, Department of Chemistry (1989). BS, University of California-Los Angeles, 1981; PhD, University of California-Davis, 1986.
- Buyuktahtakin, I. Esra**, Assistant Professor, Department of Industrial and Manufacturing Engineering (2012). BS, Fatih University, 2002; MS, Bilkent University, 2005; MS, Lehigh University, 2007; PhD, University of Florida-Gainesville, 2009.
- Calvert, Natasha B.**, Academic Lecturer, Intensive English Language Center (2013). BA, Wichita State University, 2009.
- Campbell, Betty I.**, Professor and Chairperson, School of Nursing (1998). Nursing Diploma, Hurley Medical Center School of Nursing, 1975; BSN, University of Michigan, 1980; MN, University of Kansas, 1987; PhD, University of Colorado, 1996.
- Campbell, JoLynne**, Associate Professor, Department of Medical Laboratory Sciences (1981). BA, Agnes Scott College, 1964; MSPH, University of North Carolina-Chapel Hill, 1965; DPH, 1979.
- Carroll, Jeri A.**, Professor, Department of Curriculum and Instruction (1982). BME, University of Kansas, 1965; MS, 1973; PhD, 1980.
- Carter, Stephen L.**, ESL Specialist, Intensive English Language Center (1990). BA, University of Texas-Austin, 1965; MA, West Texas State University, 1968; PhD, Texas Tech University, 1977; MA, Wichita State University, 1987.
- Castro, Susan V.**, Assistant Professor, Department of Philosophy (2012). BS, University of California-Los Angeles, 1993; MS, 1998; PhD, 2006.
- Celestin, Denise A.**, Professor, School of Performing Arts (1992). BFA, Texas Christian University, 1980; MFA, 1984.
- Celso, Jennifer E.**, Director of Clinical Education, Department of Physical Therapy (2011). BS, Wichita

- State University, 1998; MPT, 2001; DPT, Northeastern University, 2009.
- Chakravarthy, Animesh**, Assistant Professor, Department of Electrical Engineering and Computer Science (2010). BS, Bangalore University-India, 1990; MS, Indian Institute of Science, 1994; PhD, Massachusetts Institute of Technology, 2007.
- Chand, Masud**, Assistant Professor, Department of Management (2009). BBA, University of Dhaka, 2000; MBA, Simon Fraser University, 2004; PhD, 2010.
- Chandler, Gaylen N.**, Professor and W. Frank Barton Distinguished Chair in Entrepreneurship, Department of Management (2007). BS, Brigham Young University, 1980; MBA, University of Utah, 1989; PhD, 1990.
- Chang, Doris**, Associate Professor, Department of Women's Studies and Religion (2002). BA, University of North Carolina, 1992; MA, Bowling Green State University, 1994; PhD, Ohio State University, 2002.
- Chaparro, Alex**, Professor and Chairperson, Department of Psychology (1996). BS, Florida Institute of Technology-Melbourne, 1984; PhD, Texas Tech University, 1990.
- Chaparro, Barbara S.**, Associate Professor, Department of Psychology (1998). BS, University of Richmond-Virginia, 1985; PhD, Texas Tech University, 1990.
- Chapman, Sheryl A.**, Fairmount Lecturer, School of Social Work (2007). BSW, Wichita State University, 1991; MSW, University of Kansas, 2000. Cheng, Jen-Chi, Associate Professor and Chairperson, Department of Economics (1989). BA, National Chengchi University, 1978; MA, National Taiwan University, 1982; PhD, Vanderbilt University, 1989.
- Cho, Dong W.**, Professor, Department of Economics (1972). BA, Seoul National University-Korea, 1965; MA, Wayne State University, 1969; PhD, University of Illinois, 1973.
- Chopra, Dharam V.**, Professor, Department of Mathematics, Statistics and Statistics (1967). BA, Punjab University-India, 1950; MA, 1953; MA, University of Michigan, 1961; AM, 1963; PhD, University of Nebraska, 1968.
- Christ, Ronald W.**, Professor, School of Art and Design (1976). BFA, Kansas City Art Institute, 1972; MFA, Indiana University, 1974.
- Christy, Ronald L.**, Barton School Lecturer, Department of Management; Director, Kansas Family Business Forum (1993). BBA, Wichita State University, 1971; MS, 1993.
- Ciboski, Kenneth N.**, Associate Professor, Department of Political Science (1968). BA, University of Kansas, 1961; MA, 1965; PhD, University of Washington, 1971.
- Cissell, Michael A.**, Academic Lecturer, Department of English (2002, 2013). BA Wichita State University, 1997; MFA, 2000.
- Clark, James E.**, Associate Professor, Department of Economics; Associate Dean, Barton School of Business (1976). BA, Michigan State University, 1969; MA, Northwestern University, 1971; PhD, 1976.
- Clawson, Cheyla M.**, Academic Lecturer, School of Performing Arts (2013). BA, Wichita State University, 2006.
- Claycomb, Vincentia (Cindy) A.**, Professor, Barton Fellow and Neff Family Fellow in Business, Department of Marketing (1994). BBA, Wichita State University, 1979; MBA, 1991; PhD, Oklahoma State University, 1995.
- Close, Dan E.**, Associate Professor, Elliott School of Communication (1990). BA, Wichita State University, 1981; MA, 1993.
- Coats, Sylvia J.**, Professor, School of Music (1987). BM, Texas Tech University, 1969; MM, 1970; DMA, University of Colorado, 1978.
- Cochran-Black, Diana L.**, Associate Professor, Department of Medical Laboratory Sciences (1987). BS, Emporia State University, 1979; MHS, Wichita State University, 1986; DPH, University of Oklahoma, 1998.
- Cohen, Peter A.**, Dean, College of Health Professions; Professor, Departments of Psychology and Public Health Sciences (1999). AB, University of California, 1973; MA, San Diego State University, 1976; PhD, University of Michigan, 1980.
- Coleman, Kevin L. Academic Lecturer**, Intensive English Language Center (2012). BA, Friends University, 2009; MA, Kansas State University, 2011.
- Collins, Jean F.**, ESL Specialist, Intensive English Language Center (2006). BA, Colorado State University, 1988; MA, University of Colorado-Denver, 2002. TEFL Certification.
- Connor, Francis X.**, Assistant Professor and Coordinator of Undergraduate Studies, Department of English (2012). BA, University of Scranton, 1994; MA, George Mason University, 2003; PhD, University of Virginia, 2010.
- Conrad, Therese A.**, Clinical Supervisor, Department of Communication Sciences and Disorders and Cassat Speech-Language-Hearing Clinic (2006). BS, University of Missouri-Kansas City, 1982; MA, Wichita State University, 1990.
- Consiglio, Catherine A.**, Associate Professor and Associate Director, School of Music (1990). BA, Wichita State University, 1979; MA, New England Conservatory, 1983.
- Cooper, Theresa**, Clinical Educator, School of Nursing (2007). BSN, Wichita State University, 1993; BA, 1994; MSN, MBA, 2001.
- Core, Terri J.**, Clinical Educator, School of Nursing (2006). BSN, Pittsburg State University, 1988; MSN Wichita State University, 2000.
- Coufal, Kathy L.**, Professor and Chairperson, Department of Communication Sciences and Disorders (2005). BS, University of Nebraska-Lincoln, 1972; MS, 1973; PhD, 1989.
- Countryman-Roswurm, Karen I.**, Assistant Professor, School of Social Work (2009). BS, Wichita State University, 2005; MSW, 2006.
- Craft, Timothy M.**, Associate Professor, Department of Finance, Real Estate, and Decision Sciences (2000). BS, Illinois State University, 1987; MS, University of Illinois-Urbana, 1992; MS, University of Wisconsin-Madison, 1996; PhD, 2001.
- Crane, Rachel L.**, Associate Professor and Music-Fine Arts Librarian, University Libraries (2002). BM, University of North Texas, 1985; MLS, Columbia University, 1992.
- Crawley, Stephanie D.**, Clinical Educator, Department of Medical Laboratory Sciences (2010). BS, Wichita State University, 2007.
- Crews, Douglas A.**, Assistant Professor, School of Social Work (2012). BA, Belmont University, 1993; MDiv, Vanderbilt University Divinity School, 2004; MSW, University of Central Florida, 2009; PhD, University of Utah, 2012.
- Crum, Dorothy E.**, Professor, School of Music (1973). BA, Barrington College, 1966; MM, Western Kentucky University, 1969; DMA, University of Colorado, 1977.
- Curran, Rebecca E.**, Academic Lecturer, Intensive English Language Center (2013). BA, Wichita State University, 2005; MT, 2011.
- Dale, Orren**, Associate Professor, School of Social Work (2007). BA, Southwestern College, 1967; MSSW, University of Missouri-Columbia, 1969; PhD, Tulane University, 1977.
- Davis, Lynne L.**, Associate Professor and Ross Faculty of Distinction in Organ, School of Music (2006). BM, University of Michigan, 1971.
- Davis, Tinka, G.**, Instructor, Department of Mathematics, Statistics and Physics (2012). BS, Sofia University, 1990; MS, Wichita State University, 2010.
- Dawe, Margaret M.**, Associate Professor and Director of Creative Writing, Department of English (1993). BA, University of Virginia, 1979; MS, Northwestern University, 1980; MFA, City University of New York Brooklyn College, 1989.
- Decker, Terence N.**, Barton School Senior Lecturer, Department of Economics (2001). BBA, Wichita State University, 1979; MS, 1983, MA, 1993; PhD, Oklahoma State University, 2001.
- Deckert, Carla H.**, Director of Clinical Education, Physician Assistant Program (2011). BA, Wichita State University, 1976; MA, 1980.
- DeFrain, Darren C.**, Associate Professor and Chairperson, Department of English (2005). BA and BS, University of Utah, 1989; MA, Kansas State University, 1992; MFA, Texas State University, 1995; PhD, Western Michigan University, 2000.
- DeFrain, Melinda**, Academic Lecturer, Department of English (2011). BS, Kansas State University, 1993; MA, University of Wisconsin-Oshkosh, 2005; MFA, Wichita State University, 2009.
- Dehner, George J.**, Associate Professor, Department of History (2004). BS, Temple University, 1992; MA, University of Denver, 1999; PhD, Northeastern University, 2001.
- Deibel, Geoffrey S.**, Visiting Assistant Professor, School of Music (2012). BA and BM, Northwestern University, 2002; MM, 2004; DMA, Michigan State University, 2012.
- Deiter, Reitha**, Clinical Educator, Department of Medical Laboratory Sciences (2007). BS, Wichita State University, 1978; MS, Kansas State University, 2010.
- DeLillo, Thomas K.**, Professor, Department of Mathematics, Statistics and Physics (1988). BA, Upsala College, 1973; PhD, New York University, 1985.
- Demovic, Angela R.**, Assistant Professor, Department of Anthropology (2008). BS, Western Illinois University, 1990; MA, Tulane University, 2000; PhD, 2007.
- deSilva, Dharna**, Professor and Rudd Foundation Fellow, Department of Management; Director, Center for International Business Advancement (1976). BS, University of Evansville, 1957; MS, Southern Illinois University 1959; PhD, Indiana University, 1966.
- DeVault, Amy J.**, Visiting Assistant Professor, Elliott School of Communication (2008). BA, Fort Hays State University, 1997; MS, Kansas State University, 2002.
- Deyoe, Nancy S.**, Associate Professor and Assistant Dean for Technical Services, University Libraries (1987).



- BA, Kansas State University, 1983; MLS, University of Denver, 1984.
- DiLollo, Anthony**, Associate Professor, Department of Communication Sciences and Disorders (2002). BS, University of Western Australia, 1986; MS, University of Mississippi, 1996; PhD, University of Memphis, 2001.
- Ding, Yanwu**, Assistant Professor, Department of Electrical Engineering and Computer Science (2008). BS, Southwest Jiaotong University, 1985; MS, Northern Jiaotong University, 1989; MS, McMaster University, 2001; PhD, 2007.
- Distler, Donald A.**, Associate Professor, Department of Biological Sciences (1963). BA, University of Louisville, 1952; MS, 1958; PhD, University of Kansas, 1966.
- Djam, Kimal H.**, Instructor, Department of Mathematics, Statistics and Physics (2012). MS and MA, New Mexico State University, 2011.
- Dooley, Patricia L.**, Elliott Professor of Communication and Graduate Coordinator, Elliott School of Communication (1997). BA, University of Minnesota, 1975; MA, 1993; PhD, 1994.
- Dorr, Darwin A.**, Professor, Department of Psychology (1993). BA, Alfred University, 1962; MA, 1965; PhD, Florida State University, 1969.
- Dowling, Jolynn A.**, Instructor, School of Nursing (2012). BSN, Wichita State University, 1988; MSN, 1995.
- Downes, Kathy A.**, Associate Professor and Senior Associate Dean, University Libraries (1979). BS, Mississippi University for Women, 1978; MSLS, University of Kentucky, 1979; MPA, Wichita State University, 1985.
- Downs, David W.**, Senior Clinical Educator, Department of Communication Sciences and Disorders and Cassat Speech-Language-Hearing Clinic (2006). BA, University of New Mexico; 1975; MS, 1977; PhD, University of Arizona, 1982.
- Dreifort, John E.**, Professor and Graduate Coordinator, Department of History (1970). BS, Bowling Green State University, 1965; MA, 1966; PhD, Kent State University, 1970.
- Driessen, Brian J.**, Associate Professor, Department of Mechanical Engineering (2004). BS, Louisiana Tech University, 1991; MS, Georgia Institute of Technology, 1993; PhD, 1996.
- Durano, Cathy S.**, Curriculum and Instruction Educator, Department of Curriculum and Instruction (2012). BA, Wichita State University, 1985; MA, 1990.
- Dwyer, Patricia M.**, Clinical Educator, School of Nursing (2012). BSN, Wichita State University, 1996; MSN, 2002.
- Eichhorn, David M.**, Professor and Chairperson, Department of Chemistry (1996). AB, Harvard University, 1986; PhD, University of California-Berkeley, 1992.
- Elcrat, Alan R.**, Professor, Department of Mathematics, Statistics and Physics (1967). BS, University of New Mexico, 1963; MA, Indiana University, 1965; PhD, 1967.
- Elder, Betty L.**, Associate Professor, School of Nursing (2003). BA, Wichita State University, 1974; MS, Fort Hays State University, 1986; BSN, University of Missouri-Kansas City, 1999; MSN, University of Nebraska Medical Center-Omaha, 2001; PhD, University of Nebraska-Lincoln, 2004.
- Elliott, Craig L.**, Senior Fellow, District Leadership Program, Department of Counseling, Leadership, Education and School Psychology (2008). AA, Butler County Community College, 1973; BS, Fort Hay State University, 1975; MEd, Wichita State University, 1981; EdD, Oklahoma State University, 1990.
- Ellsworth, Randolph A.**, Professor, Department of Counseling, Leadership, Education and School Psychology (1974). BS, State University of New York-Plattsburgh, 1964; MA, George Peabody College, 1967; PhD, 1970.
- Engber, Kimberly S.**, Associate Professor, Department of English; Director, Lindquist Honors Program (2007). BA, Kenyon College, 1993; Master of Philosophy, City University of New York, 2000; PhD, 2003.
- English, Douglas S.**, Associate Professor, Department of Chemistry (2008). BS, University of Missouri-Kansas City, 1993; PhD, Iowa State University, 1998.
- Evans, Brian R.**, Academic Lecturer, Department of English (2011). MFA, Wichita State University, 2007.
- Ewing, Janice K.**, Associate Professor and Chairperson, Department of Curriculum and Instruction (2009). BA, University of British Columbia, 1973; MA, Washington State University, 1977; PhD, University of South Carolina, 1990.
- Faragher, Mary E.**, Instructor, School of Nursing (2002). BSN, Marymount College, 1981; MSN, Wichita State University, 1999.
- Farmer, Steven M.**, Professor, Barton Distinguished Chair in Business and Chairperson, Department of Management (1999). BS, Tulane University, 1978; MA, Southern Methodist University, 1980; MS, Georgia Institute of Technology, 1991; PhD, 1993.
- Fear, Judith A.**, Academic Lecturer, School of Music (2009). BME, Wichita State University, 1960; MM, 1967.
- Feleppa, Robert**, Professor, Department of Philosophy (1980). BA, City University of New York Lehman College, 1973; MA, Washington University, 1977; PhD, 1978.
- Ferguson, Jason W.**, Associate Professor, Department of Mathematics, Statistics and Physics (2000). BS, Wichita State University, 1990; MS, 1992; PhD, University of Kentucky, 1997.
- Flask, Dominic J.**, Assistant Professor, School of Art and Design (2011). AA, Johnson County Community College, 2004; BFA, Fort Hays State University, 2007; MFA, 2010.
- Flentje, H. Edward**, Professor, Hugo Wall School of Urban and Public Affairs and Center for Urban Studies (1979). BS, Emporia State University, 1964; MA, George Washington University, 1965; PhD, University of Kansas, 1970.
- Fletcher, Phyllis A.**, Clinical Educator and Coordinator of Clinical Learning Center, School of Nursing (1987). BSN, Wichita State University, 1976; MN, 1980.
- Flores, Bryan J.**, Academic Lecturer, Department of English (2008). BA, Wichita State University, 1996; MFA, 1999.
- Flores, Michael B.**, Assistant Director, Monroe Faculty Fellow in Accounting and Barton School Lecturer, School of Accountancy (1998). BBA, University of Texas-El Paso, 1981; MAcct, New Mexico State University, 1982. CPA-Texas.
- Flores, Raymond A.**, Assistant Professor, Department of Curriculum and Instruction (2011). BS, Angelo State University, 2003; MS, Texas Tech University, 2007; EdD, 2011.
- Flores-Cuautle, Francisco**, Assistant Professor, Department of Modern and Classical Languages (2010). BA, Benemerita Universidad Autonoma de Puebla, 1999; MA, University of Arkansas, 2004, PhD; Vanderbilt University, 2010.
- Foley, Mark T.**, Professor and Graduate Coordinator, School of Music (1989). BM, University of Minnesota, 1984; MM, University of Rochester Eastman School of Music, 1989; DM, Indiana University, 2008.
- Foster, Mary Sue**, Professor, School of Art and Design (1966). BAE, University of Kansas, 1961; MSE, 1963; MFA, 1971.
- Foster, Yumi**, Instructor, Department of Modern and Classical Languages and Literatures (2001). Diploma in Teaching Japanese, Gateway Language School-Tokyo, Japan, 1991; BA, Tokyo Gakugei University, 1991; MA, Wichita State University, 1996.
- Freeman, Eric**, Assistant Professor, Department of Counseling, Leadership, Education and School Psychology (2011). MEd, North Carolina State University, 1994; PhD, 1999.
- Freeman, Jessica D.**, Instructor, Elliott School of Communication (2012). BA, University of Texas-Arlington, 2006; PhD, University of Missouri-Columbia, 2011.
- Fridman, Buma L.**, Professor and Chairperson, Department of Mathematics, Statistics and Physics (1982). MS, Moscow State University, 1969; PhD, Leningrad Pedagogical Institute, 1973.
- Frye, Tom R.**, Visiting Instructor, School of Performing Arts (2008). BA, Wichita State University, 1971; MA, 1984.
- Garcia, Lisa A.**, Clinical Educator, Department of Physical Therapy (2012). BS, Newman University, 2008; MS, Creighton University, 2010.
- Gaunt, Philip M.**, Professor, Elliott School of Communication (1990). BA, Reading University, U.K., 1959; MA, Indiana University, 1988; PhD, 1989.
- Gibson, Kay L.**, Associate Professor, Department of Curriculum and Instruction (1998). BA, Wichita State University, 1970; MS, 1984; PhD, University of New England, 1996.
- Gibson, Kendall A.**, Academic Lecturer, Department of Modern and Classical Languages (2011). BA, Florida State University, 2007; MA, 2010.
- Gilstrap, Donald L.**, Dean, University Libraries; Professor, Department of Counseling, Leadership, Education and School Psychology (2011). BA, Emporia State University, 1992; MLS, 1994; MA, 1995; PhD, University of Oklahoma, 2007.
- Giray, Selim**, Assistant Professor, School of Music (2012). BM, Mimar Sinan University State Conservatory-Istanbul, 1991; MM, East Carolina University, 1994; DM, Florida State University, 2001.
- Glaser, Mark A.**, Professor, Hugo Wall School of Public and Urban Affairs and Center for Urban Studies (1994). BBA, Wichita State University, 1970; MUA, 1974; PhD, University of Texas-Arlington, 1981.
- GlenMaye, Linnea F.**, Associate Provost, Division of Academic Affairs and Research; Associate Professor, School of Social Work (1998). BSW, College of St. Catherine, 1986; MSW, University of Washington, 1989; PhD, 1995.
- Goering, John M.**, Assistant Professor, School of Music (2005). BM, Wichita State University, 1995; MM, 2001.
- Goldbarth, Albert**, Davis Distinguished Professor of Humanities, Department of English (1987). BA, University of Illinois, 1969; MFA, University of Iowa, 1971.
- Goldberg, Lynette R.**, Associate Professor, Department of Communication Sciences and Disorders (2008). BS,

- Lincoln Institute-Australia, 1972; MA, Western Michigan University, 1975; PhD, Wayne State University, 1995.
- Goldstein, Melissa Q.**, Instructor and Language Laboratory Director, Department of Modern and Classical Languages (2007). BA, Auburn University, 2004; Master of Hispanic Studies, 2006.
- Gong, Maojun**, Assistant Professor, Department of Chemistry (2012). BA and BS, University of Science and Technology of China, 1998; PhD, University of Cincinnati, 2006.
- Gonzalez, Barbara M.**, Senior Clinical Educator, Department of Dental Hygiene (2001). AS, Wichita State University, 1984; BHS, 1984; MHS, 1987.
- Goodvin, Sharon B.**, Senior Fellow and Alternative Certification Coordinator, Department of Curriculum and Instruction (2011). BS, Pittsburg State University, 1974; MS, 1981; EdD, Wichita State University, 2005.
- Gordon, Deborah A.**, Associate Professor and Chairperson, Department of Women's Studies and Religion (1992). BA, University of California-Davis, 1978; PhD, University of California-Santa Cruz, 1991.
- Graham, Gerald H.**, Clinton Distinguished Professor, Department of Management (1967). AA, Panols Junior College, 1957; BS, Northwestern State University, 1959; MS, 1960; PhD, Louisiana State University, 1968.
- Granada, Arthur J.**, Senior Fellow, Department of Curriculum and Instruction (2011). BSE, Emporia State University, 1977; MEd, Wichita State University, 1986; EdD, Northern Arizona University, 1997.
- Grant, Natalie S.**, Assistant Professor and BSW Program Director, School of Social Work (2007). BGS, Wichita State University, 1999; BA, 2000; MSW, 2001; MA, 2005; EdD, 2011.
- Gray, Matthew A.**, Academic Lecturer, Department of Mathematics, Statistics and Physics (2013). BA, Spring Arbor University, 1994; MA, Wichita State University, 2012.
- Grenier, Matthew J.**, Academic Lecturer, School of Music (2012). BA, Wichita State University, 2006; BM, 2009; MM, 2011.
- Griffith, Jean C.**, Associate Professor, Department of English (2007). BA, Boston College 1993; MA, Temple University, 1996; PhD, Texas A&M University, 2003.
- Groutas, William C.**, WSU Foundation Distinguished Professor, Department of Chemistry (1980). BS, American University of Beirut, 1969; PhD, University of Kentucky, 1973.
- Hackett, Donald W.**, Associate Professor and Kansas Family Business Fellow, Department of Management (1973). BBA, University of Oklahoma, 1967; MBA, 1970; DBA, 1974.
- Hager, Kevin E.**, Associate Professor, Elliott School of Communication (1998). BA, Fort Hays State University, 1982; MS, 1983.
- Hakansson, Nils A.**, Assistant Professor, Department of Industrial and Manufacturing Engineering (2011). BA, Duke University, 1988; MS, University of California-Davis, 2003; PhD, 2008.
- Hale, LaDonna S.**, Professor and Assistant Director, Physician Assistant Program (1998). BS, University of Kansas, 1995; PharmD, 1996.
- Hall, Michael G.**, Associate Professor, Department of Political Science (2008). BA, University of Pittsburgh, 1991; MA, University of California-Santa Barbara, 1993; PhD, 2002.
- Ham, Amy D.**, Academic Instructor, Department of Public Health Sciences (2001). BA, Wichita State University, 1993; MA, 1997; MPH, 2001.
- Hamdeh, Hussein H.**, Professor, Department of Mathematics, Statistics and Physics (1989). BS, Lebanese University, 1978; MS, Northeastern University, 1980; PhD, 1986.
- Hammond, John M.**, Instructor, Department of Mathematics, Statistics and Physics (2012). BS, Missouri State University, 2006; MA, University of Missouri, 2012.
- Hanawalt, Michael J.**, Assistant Professor, School of Music (2012). BM, St Olaf College, 2000; MM, Michigan State University, 2009; PhD, Florida State University, 2012.
- Harpool, Dorothy E.**, Barton School Lecturer, Department of Marketing; Director of Student and Community Initiatives, Barton School of Business (1987). BA, Mt. Mercy College, 1983; MBA, Wichita State University, 1987.
- Harris, Frances Jean**, Clinical Educator, School of Nursing (2006). BSN, Wichita State University, 1993; MSN, 1999.
- Harrison, John J.**, Engineering Educator, Department of Industrial and Manufacturing Engineering (2011). BM, Cleveland Institute of Music, 1994; MS, Massachusetts Institute of Technology, 2005.
- Harrison, Paul D.**, Professor, Director and Heskett Chair, School of Accountancy (2000). BS, Kansas State University, 1976; MBA, 1977; PhD, Arizona State University, 1982.
- Hawley, Suzanne R.**, Professor and Chairperson, Department of Public Health Sciences (2011). AA, Victor Valley College, 1990; BA, California State University-San Bernardino, 1993; MA, 1995; MPH, Loma Linda University, 1999; PhD, 2002.
- Hayes, Karen S.**, Assistant Professor, School of Nursing (1996). BS, University of Virginia, 1974; MSN, University of Kansas, 1979; PhD, University of Missouri, 1996.
- Hazen, Shirley E.**, Clinical Educator, School of Nursing (1994). BSN, Wichita State University, 1981; MN, 1983.
- He, Jibo**, Assistant Professor, Department of Psychology (2012). BS and BA, Peking University, 2007; MA, University of Illinois, 2010; PhD, 2012.
- Headley, Dean E.**, Associate Professor, Department of Marketing (1988). BSB, Emporia State University, 1970; MPH, University of Oklahoma, 1974; MBA, Wichita State University, 1982; PhD, Oklahoma State University, 1989.
- Headley, Esther L.**, Barton School Lecturer, Department of Marketing (1980). BBA, Wichita State University, 1979; MBA, 1980.
- Heldman, Louis M.**, Interim Director and Distinguished Senior Fellow, Elliott School of Communication (2011). BA, Ohio State University, 1972.
- Hellman, James L.**, Associate Professor and Associate Director, School of Art and Design (1989). BA, Wichita State University, 1972; MA, 1975; MFA, Kansas State University, 1995.
- Helm, Steven K.**, Barton School Lecturer, Department of Finance, Real Estate, and Decision Sciences (2002). BA, Andrews University, 1984; MA, University of Arizona, 1993.
- Hendry, William J. III**, Professor and Chairperson, Department of Biological Sciences (1992). BA, Northeastern University, 1974; MA, 1978; PhD, Clark University, 1982.
- Henry, Robin C.**, Associate Professor, Department of History (2006). BA, Austin College, 1998; MA, University of Massachusetts, 2000; PhD, Indiana University, 2006.
- Hensler, Douglas A.**, Dean and Professor, Barton School of Business (2008). BSE, Princeton University, 1969; MBA, University of Portland, 1981; PhD, University of Washington, 1989.
- Hernandez, Margaret A.**, Senior Clinical Educator, School of Nursing (2011). BSN, University of Illinois, 1975; MSN, Loyola University, 1981; EdD Northern Illinois University, 2011.
- Hersch, Philip L.**, Professor, Department of Economics (1983). BA, Queens College, 1974; MA, Ohio State University, 1978; PhD, 1982.
- Hershfield, Jeffrey A.**, Associate Professor, Department of Philosophy (1995). BA, University of British Columbia, 1982; MA, University of Arizona, 1985; PhD, 1992.
- Hertzog, Jodie L.**, Associate Professor and Chairperson, Department of Sociology (2003). BS, Grand Valley State University, 1994; MA, Western Michigan University, 1997; PhD, Purdue University, 2003.
- Hill, Twyla J.**, Professor and Graduate Coordinator, Department of Sociology (1998). BA, California State University, 1986; MA, University of California-Irvine, 1993; PhD, 1998.
- Hines, Lisa D.**, Assistant Professor, School of Social Work (2010). BASW, Columbia College, 1991; MSW, University of South Carolina, 1995; PhD 2004.
- Hitchcock, Ruth A.**, Associate Professor, Department of Counseling, Leadership, Education and School Psychology (1981). AB, Indiana University, 1971; MS, 1973; PhD, 1983.
- Ho, Lop-Hing**, Associate Professor, Department of Mathematics, Statistics and Physics (1989). BA, Chinese University of Hong Kong, 1979; MA, Princeton University, 1982; PhD, 1984.
- Hodson, Barbara W.**, Professor, Department of Communication Sciences and Disorders (1989). BS, University of Illinois, 1958; MS, 1960; PhD, 1975.
- Hoffmann, Klaus A.**, Gordon Distinguished Professor, Department of Aerospace Engineering (1990). BS, University of Texas, 1972; MS, 1975; PhD, 1983.
- Hori, Makiko**, Assistant Professor, Department of Sociology (2011). BA, Tokyo Metropolitan University, 1996; MA, 2000; MA, Louisiana State University, 20005; PhD, 2010.
- Horn, Walter J.**, Professor, Department of Aerospace Engineering (1984). BS, University of Alabama, 1967; MS, University of Texas, 1969; PhD, 1972. Licensed Professional Engineer-Texas.
- Houseman, Gregory R.**, Assistant Professor, Department of Biological Sciences (2008). BA, Cornerstone University, 1990; MS, Illinois State University, 1998; PhD, Michigan State University, 2004.
- Hu, Xiaomi**, Associate Professor, Department of Mathematics, Statistics and Physics (1994). BS, Jiangxi Polytechnic University, 1982; PhD, University of Missouri, 1993.
- Huckstadt, Alicia A.**, Professor, School of Nursing; Director, Doctor of Nursing Practice Program (1975).

- BSN, Wichita State University, 1975; MN, 1978; PhD, Kansas State University, 1981; PhD, University of Colorado, 1990.
- Huelskamp, Leo W.**, Instructor, Department of Mathematics, Statistics and Physics (2012). BS, Kansas State University, 2010; MS, Wichita State University, 2012.
- Hughes, David T.**, Associate Professor, Department of Anthropology (1988). BS, West Texas State University, 1973; MA, University of Arkansas, 1977; PhD, University of Oklahoma, 1988.
- Hull, Raymond H.**, Professor, Department of Communication Sciences and Disorders (1993). BA, McPherson College, 1964; MA, University of South Dakota, 1965; PhD, University of Denver, 1972.
- Hundley, Helen S.**, Assistant Professor, Department of History (1990). BA, University of Florida, 1972; MA, University of Georgia, 1977; PhD, University of Illinois, 1984.
- Hunsicker, John D.**, Assistant Professor, School of Music (2012). BM, Indiana University, 1994; MM, University of Michigan, 2000; DMA, Arizona State University, 2012.
- Hunter, Ann P.**, Assistant Professor, Department of Public Health Sciences (1980). BS, Iowa State University, 1954; MS, 1955; PhD, Kansas State University, 1991.
- Hutchinson, John J.**, Executive Analyst, Office of the General Counsel; Professor, Department of Mathematics, Statistics and Physics (1976). BA, St. Benedict's College, 1962; MA, University of Kansas, 1966; PhD, 1968.
- Iacovetta, Ronald G.**, Associate Professor, School of Community Affairs (1973). BS, Colorado State University, 1965; MS, 1967; PhD, University of Connecticut, 1972.
- Imhof, Michael J.**, Assistant Professor, School of Accountancy (2011). BBA, Pittsburg State University, 2003; MBA, 2005; PhD, University of Missouri-Columbia, 2011.
- Ingle, William N.**, Academic Lecturer and Director of Online Education, Department of Mathematics, Statistics and Physics (2008). BS, University of Missouri-Rolla, 1983; MS, Wichita State University, 1985; PhD, 2011.
- Iorio, P. Sharon**, Dean, College of Education; Professor, Elliott School of Communication (1990). BA, University of Oklahoma, 1965; MS, Oklahoma State University, 1984; PhD, 1991.
- Isakov, Victor**, Dutcher Faculty of Distinction Endowed Professor, Department of Mathematics, Statistics and Physics (1988). MS, Novosibirsk State University Institute of Mathematics, 1971; PhD, 1973.
- Jack, Ashlie R.**, Assistant Professor, Department of Curriculum and Instruction (2012). BSE, Emporia State University, 1996; MS, 2003; PhD, Kansas State University, 2011.
- Jackman, Toni K.**, Academic Lecturer, Department of Geology (2008). MS, Wichita State University, 1986.
- Jacobs, Phyllis M.**, Assistant Professor and Clinical Education Coordinator, School of Nursing (1990). BSN, University of Wisconsin-Madison, 1965; MSN, Washington University, 1967.
- Jadliwala, Murtuza**, Assistant Professor, Department of Electrical Engineering and Computer Science (2011). BE, Mumbai University, 2000; MS, SUNY-Buffalo, 2004; PhD, 2008.
- Jameson, Mary E.**, Associate Professor, Department of Biological Sciences (2010). BS, University of Nebraska-Lincoln, 1986; MS, 1988; PhD, University of Kansas, 1997.
- Jankauskas, Sarunas**, Assistant Professor, School of Music (2012). BM, Grand Valley State University, 2005; MM, Rice University, 2007; DMA, University of Texas-Austin, 2011.
- Jarman, Jeffrey W.**, Director of Debate and Forensics and Associate Director of Basic Oral Communication Program, Elliott School of Communication (1996). BS, Southwest Missouri State University, 1993; MA, University of Kansas, 1995; PhD, 1998.
- Jarnagin, Bill D.**, Professor and Allen, Gibbs, and Houlik Faculty Fellow, School of Accountancy (1987). BSBA, Arkansas Polytechnic University, 1969; MBA, University of Arkansas, 1970; PhD, 1976. CPA-Oklahoma.
- Jeffres, Thalia**, Associate Professor, Department of Mathematics, Statistics and Physics (2004). BA, Johns Hopkins University, 1985; MA, Dartmouth College, 1987; PhD, State University of New York-Stony Brook, 1996.
- Jewell, Ward T.**, Professor, Department of Electrical Engineering and Computer Science (1987). BSEE, Oklahoma State University, 1979; MSEE, Michigan State University, 1980; PhD, Oklahoma State University, 1986.
- Jin, Zhiren**, Professor, Department of Mathematics, Statistics and Physics (1994). BS, Hangzhou University, 1982; MS, 1985; PhD, University of Pennsylvania, 1990.
- Johns, Buddy A., Jr.**, Associate Professor, Department of Mathematics, Statistics and Physics (1964). BA, Friends University, 1957; MA, University of Kansas, 1960; PhD, 1964.
- Johnson, C. Nicholas**, Professor and Program Director of Dance, School of Performing Arts (1997). BS, University of Utah, 1980; MFA, University of Arizona, 1991.
- Johnson, John P.**, Professor, School of Music (2008). BM, Westminster College, 1976; MM, University of Wisconsin-Madison, 1981; PhD, 1992.
- Johnson, Kirsten S.**, Associate Professor, School of Art and Design (1984). BFA, Minneapolis College of Art and Design, 1980; MFA, Indiana University, 1984.
- Jones, Bret A.**, Associate Professor and Program Director of Theatre, School of Performing Arts (2008). BA, East Central University, 1991; MA, University of Oklahoma, 1993; PhD, 2003.
- Jones, Kerry A.**, Fairmount Lecturer and Writing Center Director, Department of English (2001) MFA, Wichita State University, 2000.
- Jorgensen, Michael J.**, Associate Professor, Department of Industrial and Manufacturing Engineering (2001). BS, University of Nebraska, 1986; MS, 1989; PhD, Ohio State University, 2000.
- Kagdi, Huzefa H.**, Assistant Professor, Department of Electrical Engineering and Computer Science (2011). BE, Birla Vishwakarma Mahavidyala-India, 1998; MS, Kent State University, 2003; PhD, 2008.
- Kahn, Melvin A.**, Professor, Department of Political Science (1970). BA, University of Florida, 1952; MA, University of Chicago, 1958; PhD, Indiana University, 1964.
- Kearney, Linwood W.**, Clinical Assistant Professor, School of Accountancy (2007). BS, East Carolina University, 1987; MBA, 1991; MAcct, North Carolina State University, 1996; PhD, Florida State University, 2009.
- Keebler, Joseph R.**, Assistant Professor, Department of Psychology (2012). BS, University of Central Florida, 2005; MA, 2010; PhD, 2011.
- Keshavanarayana, S. Raju**, Associate Professor, Department of Aerospace Engineering (2002). BS, Ramaiha Institute of Technology, 1992; MS, Wichita State University, 1997; PhD, 2001.
- Keuter, Kayla R.**, Assistant Professor, Physician Assistant Program (2010). BS, University of Wisconsin-Platteville, 1988; BS, Wichita State University, 1999; MPH, University of Kansas, 2006.
- Kilpatrick, Maria T.**, Academic Lecturer, Department of Modern and Classical Languages (2011). BA, University of Seville-Spain, 1980; MA, University of North Carolina-Chapel Hill, 1986; PhD, 1994.
- Kim, Wonyoung**, Assistant Professor, Department of Sport Management (2012). BPE, Chungnam National University-Korea, 2001; MPE, 2003; MS, Mississippi State University, 2009; PhD University of Southern Mississippi, 2012.
- King, Marie Allyn**, Associate Professor and Program Director of Opera, School of Music (1997). BFA, Florida Atlantic University, 1972; Artists Diploma, University of Cincinnati College Conservatory of Music, 1997; MFA, 1998.
- Kliment, Linda K.**, Assistant Professor, Department of Aerospace Engineering (2010). BS, University of Nebraska-Lincoln, 2000; MS, Wichita State University, 2002; PhD, 2009.
- Klunder, Willard C.**, Associate Professor, Department of History (1986). BA, Saint Olaf College, 1969; AM, University of Illinois, 1972; PhD, 1981.
- Knoblauch, Bobbie A.**, Barton School Lecturer, Department of Management (2001). BBA, Wichita State University, 1982; MBA, 1984.
- Koerber, Charles S.**, Associate Dean, College of Liberal Arts and Sciences; Associate Professor, Department of Sociology (1999). BA, University of Wyoming, 1991; MA, 1993; PhD, Binghamton University, 1999.
- Koehn, Mary L.**, Associate Professor, School of Nursing; Associate Dean, College of Health Professions (1990). BSN, Wichita State University, 1987; MSN, 1990; PhD, University of Kansas, 2003.
- Koert, David N.**, Associate Professor and Chairperson, Department of Mechanical Engineering (1993). BSME, Villanova University, 1980; MSME, Drexel University, 1984; PhD, 1990.
- Kreinath, Jens**, Associate Professor, Department of Anthropology (2006). BA, University of Heidelberg, 1991; BA, 1995; MA, 1997; BA, 1997; PhD, 2006.
- Krishnan, Krishna**, Professor and Chairperson, Department of Industrial and Manufacturing Engineering (1996). BS, Kerala University, India, 1984; MS, Virginia Polytechnic Institute and State University, 1991; PhD, 1994.
- Krutka, Daniel G.**, Assistant Professor, Department of Curriculum and Instruction (2011). BS, University of Oklahoma-Norman, 2004; MEd, 2007; PhD, 2012.
- Kumar, Preethika K.**, Assistant Professor, Department of Electrical Engineering and Computer Science (2007). BS, Bangalore University, 2000; MS, Wichita State University, 2004; PhD, 2007.
- Kwon, Hyuck M.**, Professor, Department of Electrical Engineering and Computer Science (1993). BSEE, Seoul National University, 1978; MSEE, 1980; PhD, University of Michigan, 1984.
- Lacy, Randolph A.**, Assistant Professor, School of Music (2012). BM, Rice University, 1984 ; MM, 1984; DMA, University of Houston, 2004.
- Lancaster, Kirk E.**, Professor and Graduate Coordinator, Department of Mathematics, Statistics and Physics

- (1980). AB, Humboldt State University, 1975; PhD, Oregon State University, 1981.
- Lankarani, Hamid M.**, Professor, Department of Mechanical Engineering (1989). BSME, University of Iowa, 1981; MSME, 1983; PhD, University of Arizona, 1988.
- Lasine, Stuart**, Professor, Department of Women's Studies and Religion (1984). BA, University of Michigan, 1966; MA, University of Wisconsin-Madison, 1968; PhD, 1977.
- Lause, Timothy W.**, Assistant Professor, School of Social Work (1978). BS, Central Missouri State University, 1973; MA, 1974; PhD, St. Louis University, 1981.
- Laycock, Mark A.**, Associate Professor, Walenta Faculty of Distinction Endowed Professorship and Director of Orchestra, School of Music (2006). BA, University of Southern California, 1988; MM, University of Nebraska, 1990; DA, University of Northern Colorado, 2005.
- LeCompte, Richard L.B.**, Associate Professor, Chairperson and Heskett Chair in Finance, Department of Finance, Real Estate, and Decision Sciences (1989). BA, University of Arkansas, 1976; MA, 1978; PhD, University of Texas, 1987.
- Lee, Kyoung H.**, Assistant Professor, School of Social Work (2007). BA, Kang-Nam University, 1997; MPA, Myong-Ji University, 1999; MA, West Virginia University, 2003; MSW, 2005; PhD, 2005.
- Lefever-Davis, Shirley A.**, Senior Associate Dean, College of Education; Professor, Department of Curriculum and Instruction (2005). BS, Kansas State University, 1984; MS, 1988; PhD, 1991.
- Lehecka, Bryan J.**, Assistant Professor, Department of Physical Therapy (2012). BS, Kansas State University, 2006; PhD, Wichita State University, 2009.
- Leisy, Aimee C.**, ESL Specialist, Intensive English Language Center (2009). BA, Bethel College, 1996; MS, Indiana University, 2009.
- Lesniak, Joseph S.**, Engineering Educator, College of Engineering (2012). BS, University of Wisconsin-Eau Claire, 1984; MS, Wichita State University, 2007.
- Lewis, Rhonda K.**, Professor, Department of Psychology (1996). BA, Wichita State University, 1991; MA, University of Kansas, 1993; MPH, 1996; PhD, 1996.
- Liera-Schwichtenberg, Ramona**, Associate Professor, Department of Women's Studies and Religion (1995). BA, University of Wisconsin-Milwaukee, 1976; MA, 1978; PhD, University of Iowa, 1988.
- Lindenmeyer, Marla K.**, Physical Education Educator, Department of Human Performance Studies (2006). BS, Washburn University, 1976; MEd, Wichita State University, 1989.
- Liu, Fuchang**, Associate Professor, Department of Curriculum and Instruction (2005). BA, Liaocheng Teachers College, 1982; MA, Jilin University, 1989; MEd, University of Louisiana, 1996; EdD, 1999.
- Loftus, Ariel**, Associate Professor, Department of History (1997). BA, University of Michigan, 1979; MA, 1982; PhD, 1992.
- Lohfink, Gayla S.**, Assistant Professor, Department of Curriculum and Instruction (2010). BS, Kansas State University, 1976; MS, Fort Hays State University, 1982; EdS, 1986; PhD, Kansas State University, 2006.
- Longhofer, Stanley D.**, Professor and Clark Chair in Real Estate and Finance, Department of Finance, Real Estate, and Decision Sciences; Director, Center for Real Estate (1999). BBA, Wichita State University, 1989; MS, University of Illinois, 1991; PhD, 1995.
- Lu, Tianshi**, Associate Professor, Department of Mathematics, Statistics and Physics (2008). BS, Fudan University-China, 1997; MS, New York University, 1999; MA, University of Wisconsin-Madison, 2001; PhD, State University of New York-Stony Brook, 2005.
- Lu, Xiufen**, Associate Professor, Department of Philosophy (2001). BA, Beijing Second Institute of Foreign Language, 1983; MA, University of Southern Illinois-Edwardsville, 1991; PhD, University of Kansas, 2000.
- Lusk, Mandy E.**, Assistant Professor, Department of Curriculum and Instruction (2012). BA, Mississippi State University, 2001; MS, 2003; PhD, University of North Texas, 2012.
- Ma, Chunsheng**, Professor, Department of Mathematics, Statistics and Physics (1999). BS, Wuhan Teachers College, 1981; MS, Wuhan University, 1988; PhD, University of Sydney, 1997.
- Ma, Daowei**, Professor, Department of Mathematics, Statistics and Physics (1993). MS, Wuhan University, 1982; PhD, Washington University, 1990.
- Madhavan, Viswanatha**, Professor, Department of Industrial and Manufacturing Engineering (1996). BTech, Indian Institute of Technology, 1991; MS, Purdue University, 1993; PhD, 1996.
- Madway, Lorraine M.**, Assistant Professor, University Archivist and Curator of Special Collections, University Libraries (2006). BA, Bryn Mawr College, 1975; MA, Hebrew Union College, 1986; PhD, Yale University, 1999; MLS, Simmons College, 2004.
- Mahapatro, Anil**, Assistant Professor, Department of Industrial and Manufacturing Engineering (2011). BE, Maharashtra Institute of Technology-India, 1996; MS, University of Manchester-England, 1997; PhD, New York University, 2004.
- Mallon, Melissa N.**, Assistant Professor and Coordinator of Library Instruction, University Libraries (2010). BA, Wichita State University, 2004; MLIS, Louisiana State University, 2007.
- Malzahn, Don E.**, Professor, Department of Industrial and Manufacturing Engineering (1973). BS, Oklahoma State University, 1968; MS, 1969; PhD, 1975.
- Mandt, Almer J. III**, Associate Professor, Department of Philosophy (1976). BA, Trinity College, 1972; MA, Vanderbilt University, 1974; PhD, 1978.
- Manske, Robert C.**, Associate Professor, Department of Physical Therapy (1998). BA, Wichita State University, 1991; MPT, 1994.
- Markova, Gergana T.**, Assistant Professor, Department of Management (2006). BS, Bulgarian University of National and World Economy, 1997; MS, 1998; MA, Southwestern University of Bulgaria, 2001; PhD, University of Central Florida, 2006.
- Markovich, Victor A.**, Professor, School of Music (1990). BM, Kent State University, 1972; MM, University of Michigan, 1977; PhD, 1985.
- Martin, Charles L.**, Professor, Department of Marketing (1985). BBA, West Texas State University, 1981; MBA, 1982; PhD, Texas A&M University, 1986.
- Martin, Pamela G.**, Clinical Educator, School of Nursing (2007). BSN, Washburn University, 1980; BA, 1980; MN, University of Kansas 1985.
- Maseman, Denise C.**, Assistant Professor and Chairperson, Department of Dental Hygiene (1981). BS, University of Nebraska, 1974; MS, University of Missouri, 1978.
- Mason, Katherine C.**, Assistant Professor, Department of Curriculum and Instruction (2010). BSE, Emporia State University, 2000; MS, Kansas State University, 2003; PhD, Arizona State University, 2006.
- Masud, Abu S.M.**, Interim Dean, Graduate School; Professor, Department of Industrial and Manufacturing Engineering (1980). BS, Bangladesh University of Engineering and Technology, 1969; Diploma, Institute of Business Administration, 1973; MSIE, Kansas State University, 1975; PhD, 1978. Licensed Professional Engineer-Kansas.
- Matson, Ronald R.**, Interim Dean, Fairmount College of Liberal Arts and Sciences; Associate Professor, Department of Sociology (1970). AB, University of South Dakota, 1965; MA, University of Colorado, 1967; PhD, 1973.
- Matveyeva, Susan J.**, Associate Professor and Cataloging and Institutional Repository Librarian, University Libraries (2002). BA, Odessa State Conservatory, 1970; PhD, Russian Academy of Science Institute of Philosophy, 1985; MLIS, Wayne State University, 2001.
- Mau, Joseph Wei Chang**, Professor, Department of Counseling, Leadership, Education and School Psychology; Associate Dean, College of Education (1991). BA, Tamkang University, 1979; MA, University of Iowa, 1985; PhD, 1990.
- Maxwell, Cynthia A.**, Academic Lecturer, Department of English (2012). MA, Wichita State University, 1994; MFA, 2011.
- May, Anthony D.**, Assistant Professor, Department of Finance, Real Estate and Decision Sciences (2011). BS, West Texas A&M University, 2004; MS, 2006; PhD, University of Oklahoma, 2011.
- Mayer, Janelle E.**, Clinical Educator, School of Nursing (2011). BS, Southwestern Oklahoma State University, 1989; DPharm, University of Kansas, 2005.
- Mays, Walter A.**, Distinguished Professor, School of Music (1970). BS, University of Cincinnati, 1963; MM, 1964; DMA, 1970.
- Mazza-Silhan, Barbara A.**, ESL Specialist, Intensive English Language Center (1990). BA, Oklahoma State University, 1981; MA, 1983.
- McClendon, Jacquelyn J.**, Senior Clinical Educator, School of Nursing, (2008). BN, South Dakota State University, 1970; MN, Wichita State University, 1980; PhD, University of Colorado, 1996.
- McCluskey, Kara**, Engineering Technology Educator, College of Engineering (2012). BS, Virginia Polytechnic Institute and State University, 1997.
- McCrea, Wyatt K.**, Instructor, School of Art and Design (2003). BFA, Bethany College, 1964; MFA, Wichita State University, 1967.
- McDonald, J. David**, Professor, Department of Biological Sciences (1992). BS, Kansas State University, 1983; PhD, 1988.
- McDowell, Kimberly D.**, Associate Professor, Department of Curriculum and Instruction (2004). BA, Wichita State University, 1994; MA, 2000; PhD, Florida State University, 2004.
- McGlynn, Michael P.**, Associate Professor and Graduate Coordinator of Spanish, Department of Modern and

- Classical Languages (2004). BA, University of Notre Dame, 1992; MA, University of Oregon, 1996; PhD, 2004.
- McKee, Roberta K.**, Barton School Senior Lecturer, Department of Marketing (2008). BS, Kearney State College, 1981; MEd, University of Nebraska-Lincoln, 1989; PhD, 1992.
- McKellar, Nancy A.**, Associate Professor, Department of Counseling, Leadership, Education and School Psychology (1984). BS, University of Michigan, 1970; MA, Northern Illinois University, 1979; PhD, 1981.
- Medvene, Louis J.**, Professor, Department of Psychology (1992). BA, Clark University, 1967; MA, University of Rochester, 1971; MS, Columbia University, 1976; PhD, 1983.
- Mefferd, Antje S.**, Assistant Professor, Department of Communication Sciences and Disorders (2008). MA, University of Nebraska-Omaha, 2004; PhD, University of Nebraska-Lincoln, 2008.
- Meissen, Gregory J.**, Professor, Department of Psychology (1980). BA, Wichita State University, 1977; PhD, University of Tennessee, 1980.
- Menefee, Catherine J.**, Academic Lecturer, Department of English (2013). BA, Sterling College, 2006; MFA, Wichita State University, 2012.
- Metheny, Maryssa N.**, Academic Lecturer, Department of Mathematics, Statistics and Physics (2013). BS, Truman State University, 2007; MS, Wichita State University, 2009; PhD, 2012.
- Meyer, Holger**, Assistant Professor, Department of Mathematics, Statistics and Physics (2008). MS, Virginia Polytechnic Institute and State University, 1997; PhD, 2002.
- Milberger, Karen E.**, Engineering Educator, Department of Electrical Engineering and Computer Science (2013). BS, University of Cape Town, 1994; MS, 1997.
- Miles, William R.**, Professor and Barton Fellow, Department of Economics (1999). BS, Bentley College, 1993; PhD, University of Illinois, 1999.
- Millar, Shaunna C.**, Field Practicum Associate, School of Social Work (2010). BSW, Wichita State University, 1997; MSW, 2001.
- Miller, Deah L.**, Instructor, School of Social Work (2011). BA, Wichita State University, 2005; MSW, 2006.
- Miller, Douglas S.**, Academic Lecturer, Intensive English Language Center (2007). MDiv, Grace College and Seminary, 1976.
- Miller, Glendon R.**, Director, Environmental Health and Safety; Associate Professor, Department of Biological Sciences (1968). BA, Southern Illinois University, 1960; MA, 1962; PhD, University of Missouri, 1967.
- Miller, Josephine**, Associate Professor, School of Music (2005). BME, Ohio State University, 1972; PhD, University of Nebraska, 2005.
- Miller, Kenneth G.**, Professor, Department of Mathematics, Statistics and Physics (1981). BA, Macalester College, 1969; MS, University of Chicago, 1970; PhD, 1975.
- Miller, L. Scott**, Professor and Chairperson, Department of Aerospace Engineering (1988). BS, Texas A&M University, 1981; MS, 1983; PhD, 1988.
- Miller, Rodney E.**, Dean, College of Fine Arts; Professor, School of Music (2004). BM, West Texas State University, 1974; MM, Indiana University, 1977; PhD, Illinois State University, 1988.
- Minaie, Babak**, Professor, Department of Mechanical Engineering (2005). BS, Sharif University, 1978; MS, Iowa State University of Science and Technology, 1980; PhD, University of Minnesota, 1990.
- Mitchell, Colm Patric**, Academic Lecturer, Department of Mathematics, Statistics and Physics (2012). BS, Wichita State University, 2005; MS, 2009.
- Mitchell-Koch, Katie R.**, Assistant Professor, Department of Chemistry (2012). BS, University of Kansas, 2003; MS, University of Michigan, 2005; PhD, University of Kansas, 2008.
- Monroe, Betty R.**, Professor, School of Performing Arts (1991). BFA, Wayne State University, 1983; MFA, Michigan State University, 1987.
- Moore-Jansen, Cathy L.**, Associate Professor and Coordinator for Collection Development, University Libraries (1989). BA, Cornell University, 1973; MLS, University of Tennessee, 1986.
- Moore-Jansen, Peer**, Professor and Chairperson, Department of Anthropology (1989). BA, Texas Tech University, 1977; MA, University of Arkansas, 1982; PhD, University of Tennessee, 1989.
- Morris, Connie S.**, Instructor, Elliott School of Communication (1977). BA, Wichita State University, 1966; ME, 1971.
- Morrison, Barbara**, Riordan Distinguished Professorship in Maternal Child Health and Associate Professor, School of Nursing (2012). BA, College of Wooster, 1977; BS, Columbia University, 1979; MN, University of Washington, 1987; PhD, University of Illinois, 2000.
- Mosack, Victoria A.**, Associate Professor, School of Nursing (2006). BSN, Wichita State University, 1980; MSN, 1992; PhD, 2006.
- Mukerjee, Hari G.**, Professor, Department of Mathematics, Statistics and Physics (1988). BE, University of Calcutta, 1954; MS, University of Missouri-Rolla, 1957; PhD (Physics), University of Missouri-Columbia, 1967; PhD (Statistics), State University of New York-Binghamton, 1977.
- Muma, Richard D.**, Associate Provost for Quality Assurance and Accountability, Division of Academic Affairs and Research; Professor, Department of Public Health Sciences (1994). BS, University of Texas Medical Branch-Galveston, 1987; MPH, University of Texas Health Science Center, 1993; PhD, University of Missouri, 2004.
- Murphy, Rebekah L.**, Academic Lecturer, Physician Assistant Program (2012). MS, Creighton University, 2009.
- Muthitacharoen, Achita**, Associate Professor, Department of Finance, Real Estate, and Decision Sciences (2002). BBA, Thammasat University, 1991; MBA, University of Memphis, 1997; PhD, 2002.
- Myers, Eunice D.**, Associate Dean, College of Liberal Arts and Sciences; Associate Professor and Director of the Puebla Summer Program, Department of Modern and Classical Languages and Literatures (1981). BA, University of North Carolina, 1971; MA, 1973; PhD, 1977.
- Myers, Nancy L.**, Associate Professor and Director for Public Services, University Libraries (1995). BA, Monmouth College, 1963; MLS, University of Illinois, 1964; MA, University of Kansas, 1967.
- Myose, Roy Y.**, Professor, Department of Aerospace Engineering (1992). BSAE, University of Southern California, 1983; MS, California Institute of Technology, 1984; PhD, University of Southern California, 1991.
- Namboodiri, Vinod**, Assistant Professor, Department of Electrical Engineering and Computer Science (2008). BE, Gujarat University-India, 2000; MS, University of North Carolina-Charlotte, 2003; PhD, University of Massachusetts, 2008.
- Nance, Donald W.**, Executive Director, Training and Technology Team; Associate Professor, Department of Psychology (1968). BA, University of Redlands, 1964; MA, University of Iowa, 1967; PhD, 1968.
- Neville, David A.**, Associate Professor and Scenic Lighting Designer, School of Performing Arts (2006). BFA, University of Kansas, 1987.
- Ni, Rui**, Assistant Professor, Department of Psychology (2008). BS, Beijing Normal University, 1996; PhD, Chinese Academy of Sciences, 2001.
- Nicks, Stephanie R.**, Clinical Educator, School of Nursing (2007). BSN, Newman University, 2002; MSN, Wichita State University, 2007.
- Noble, Jeffrey S.**, Assistant Professor, Department of Sport Management (2004). BS, Iowa State University, 1984; MS, Western Illinois University, 1987; EdD, University of Northern Colorado, 2004.
- Nordyke, Rebecca S.**, Academic Lecturer, Elliot School of Communication (2001, 2010). BS, Kansas State University, 1971; MA, 1973.
- Nyberg, Sue M.**, Associate Professor, Chairperson and Program Director, Physician Assistant Program (1996). BHS, Wichita State University 1981; MHS, 1988.
- Oakes, Scott C.**, Assistant Professor, School of Music (2008). BM, University of the Pacific Conservatory of Music, 1999; MM, DePaul University, 2007.
- Oare, Steven R.**, Assistant Professor, School of Music (2007). BM, University of Idaho, 1987; DFA, University of Calgary, 1991; MM, 1994; PhD, Michigan State University, 2007.
- Okafor, Chinyere**, Professor, Department of Women's Studies and Religion (2002). BA, University of Nigeria, 1975; PgD, University College-Cardiff, 1977; MA, University of Sussex, 1979; PhD, University of Nigeria, 1989.
- O'Sullivan, Patricia A.**, Barton School Lecturer, School of Accountancy (2010). BA, St. Louis University, 1970; MBA, University of Kansas, 1975.
- Overcash, Michael R.**, Professor and Bloomfield Distinguished Professor Chair, Department of Industrial and Manufacturing Engineering (2009). BS, North Carolina State University, 1966; MS, University of New South Wales, 1967; PhD, University of Minnesota, 1972.
- Overholtzer, Lisa M.**, Assistant Professor, Department of Anthropology (2012). BA, University of California-Berkeley; PhD, Northwestern University, 2012.
- Owens, J. Craig**, Assistant Professor and Director of Jazz Studies, School of Music (1986). AA, Hutchinson Community College, 1966; BA, Wichita State University, 1986.
- Owens, Robert M.**, Associate Professor, Department of History (2004). BA, Southern Illinois University, 1995; MA, University of Illinois, 1998; PhD, 2003.
- Palmer, Evan M.**, Assistant Professor, Department of Psychology (2007). BS, University of California-Los Angeles, 1996; MA, 1998, PhD, 2003.
- Palmiotto, Michael J.**, Professor and Undergraduate Coordinator, School of Community Affairs (1994). BS, Mercy College, 1971; MS, City University of New York, 1974; PhD, University of Pittsburgh, 1980.

- Papadakis, Michael**, Professor, Department of Aerospace Engineering (1986). BTech, Loughborough University 1979; MS, 1981; PhD, Wichita State University, 1986.
- Pappas, Richard G.**, Physical Education Educator, Department of Human Performance Studies (2010). BS, Fort Hays State University, 1976; MEd, Wichita State University, 1987.
- Parcell, Lisa M.**, Assistant Professor, Elliott School of Communication (2008). BS, Appalachian State University, 1993; MA, University of Alabama, 1997; PhD, 2003.
- Parcell, William C.**, Associate Professor and Chairperson, Department of Geology (2001). BS, University of the South, 1994; MS, University of Delaware, 1997; PhD, University of Alabama, 2000.
- Parham, Douglas F.**, Assistant Professor, Department of Communication Sciences and Disorders (2008). BA, Memphis State University, 1992; MA, University of Memphis, 1996; PhD, 2008.
- Parker, Phillip E.**, Professor, Department of Mathematics, Statistics and Physics (1983). BA, Hendrix College, 1969; MA, University of Missouri, 1970; PhD, Oregon State University, 1977.
- Parsons, Susan D.**, Assistant Professor, School of Nursing (2008). BSN, Wichita State University, 1974; MSN, 1978; PhD, Kansas State University, 1987.
- Patterson, Jean A.**, Professor and Chairperson, Department of Counseling, Leadership, Education and School Psychology (1999). BS, Florida State University, 1976; MA, Ball State University, 1981; EdD, University of North Carolina, 1997.
- Patterson, Jeremy A.**, Associate Professor and Director of Human Performance Laboratory, Department of Human Performance Studies (2004). BS, Linfield College, 1995; MS, Victoria University of Wellington, 2002; PhD, 2004.
- Paul, Angela S.**, Assistant Instructor and Temporary Reference Librarian, University Libraries (2004). BA, University of Northern Iowa, 1988; MLS, Emporia State University, 2004.
- Pearson, Jennifer D.**, Assistant Professor, Department of Sociology (2008). BA, University of Texas-Austin, 2000; MA, 2003; PhD, 2008.
- Peer, Sandra K.**, Math Educator, Department of Mathematics, Statistics and Physics; Department of Curriculum and Instruction (2007). BA, Washburn University, 1975; MS, Wichita State University, 1988.
- Pelkowski, Jodi E.**, Associate Professor, Department of Economics, (2000). BA, Coe College, 1995; MS, University of Kentucky, 1998; PhD, 2000.
- Pendse, Ravi**, Vice President for Information Technology and Chief Information Officer, Division of Information Services; Executive Director, Advanced Networking Research Institute; Professor, Department of Electrical Engineering and Computer Science; Wichita State University CISCO Fellow; Senior Fellow, National Institute of Aviation Research (1994). BSEE, Osmania University 1982; MSEE, Wichita State University, 1985; PhD, 1994.
- Perez, Kathleen M.**, Associate Professor, Department of Sociology (1983). BA, Clarke College, 1979; MA, Miami University, 1980; PhD, Purdue University, 1984.
- Perez Glatt, Sabrina A.**, Field Placement Coordinator, School of Social Work (1995). BSW, Wichita State University, 1978; MSW, University of Kansas, 1993.
- Perline, Martin M.**, Professor and Bloomfield Foundation Faculty Fellow in Business, Department of Economics (1965). BA, Arizona State University, 1960; MA, Ohio State University, 1962; PhD, 1965.
- Perry, John T.**, (2005, 2011). Associate Professor, Department of Management (2005, 2011). BA, Dickinson College, 1989; MBA, Lehigh University, 1992; MS, University of Pennsylvania, 1999; PhD, 2006.
- Pett, Timothy L.**, Professor, Department of Management; Director, Center for Entrepreneurship, (1996). BA, Saint Leo College, 1989; MBA, University of Memphis, 1992; PhD, 1998.
- Pickus, Keith H.**, Interim Provost, Division of Academic Affairs and Research; Professor, Department of History (1995). BA, University of California-Santa Barbara, 1983; MA, University of Washington, 1988; PhD, 1993.
- Pile, Debra E.**, Assistant Professor and Coordinator of Accelerated BSN Program, School of Nursing (2009). BSN, Wichita State University, 1999; MSN, 2004; DNP, 2009.
- Pitetti, Kenneth H.**, Professor, Department of Physical Therapy (1987). BS, University of San Francisco, 1968; MS, Fort Hays State University, 1980; PhD, University of Texas Health Science Center-Dallas, 1986.
- Popp, Harold A.**, Visiting Assistant Professor, School of Music (1993, 2012). BME, Ottawa University, 1959; MME, Indiana University, 1960; MFA, University of Iowa, 1967; PhD, 1969.
- Porter, Stephen S.**, Associate Professor, Chairperson and Moore Faculty Fellow in Business, Department of Marketing (1995). BS, Friends University, 1976; MBA, Wichita State University, 1982; PhD, Oklahoma State University, 1994.
- Price, Jay M.**, Associate Professor and Chairperson, Department of History (1999). BA, University of New Mexico, 1991; MA, College of William and Mary, 1992; PhD, Arizona State University, 1997.
- Pulaski, Jeffrey S.**, Assistant Professor, School of Art and Design (2000). BFA, Wichita State University, 1991; MFA, Kansas State University, 2008.
- Quirin, Jeffrey J.**, Professor and Barton Distinguished Chair in Business, School of Accountancy (2000). BS, Pittsburg State University, 1994; MBA, 1995; PhD, University of Nebraska, 1998.
- Radebaugh, Day W.**, Visiting Assistant Professor, Department of Philosophy; Director of Technology, College of Education (2012). BA, Michigan State University, 1967; MA, Johns Hopkins University, 1975; PhD, 1983; MS, George Washington University, 1990.
- Rai, Atul**, Associate Professor and Jones Faculty Fellow in Corporate Governance, School of Accountancy (2007). BT, Indian Institute of Technology, 1981; MBA, Indian Institute of Management, 1983; PhD, New York University, 1996.
- Ramanan, Prakash V.**, Professor, Department of Electrical Engineering and Computer Science (1991). BE, Birla Institute of Technology and Science, 1980; PhD, University of Illinois, 1984.
- Ramos-Blanford, Veronica A.**, Clinical Educator, School of Nursing (2012). BSN, Pittsburg State University, 1996; MSN, University of Missouri-Kansas City, 2001.
- Ranatunga, Gayanthi**, Academic Lecturer, Department of English (2012). BA, Wichita State University, 2009; MA, 2011.
- Ravigururajan, Tiruvadi S.**, Professor, Department of Mechanical Engineering (1991). BE, University of Madras, 1978; ME, Howard University, 1981; PhD, Iowa State University, 1986. Licensed Professional Engineer-Iowa.
- Rawson, Brian L.**, Barton School Lecturer, Department of Management (2008). BS Brigham Young University, 1986; MBA, University of Virginia, 1993.
- Ray, Brian G.**, Clinical Supervisor, Department of Communication Sciences and Disorders and Speech-Language-Hearing Clinic (1997). BA, Wichita State University, 1985; MA, 1988.
- Reding, Kurt F.**, Clinical Assistant Professor and Thornton Faculty Fellow, School of Accountancy (2008). BS, Trinity Christian College, 1977; MS, Northern Illinois University, 1979; PhD, University of Tennessee, 1988.
- Reynolds, Nathaniel D.**, Academic Lecturer, Department of Geology (2012). BA, University of Kansas, 1971; MS, University of Wisconsin, 1976; PhD, Florida State University, 1986.
- Rhoads, Jane A.**, Learning Skills Specialist, Office for Faculty Development and Student Success (1971, 1977). BA, Southwestern College, 1964; MS, Emporia State University, 1967.
- Richardson, William H.**, Associate Professor, Department of Mathematics, Statistics and Physics (1962). AB, California State University, 1959; MS, Iowa State University, 1961.
- Rillema, D. Paul**, Professor, Department of Chemistry (1994). AB, Hope College, 1965; PhD, Michigan State University, 1969.
- Rimmington, Glyn M.**, Professor of Global Learning, Fairmount College of Liberal Arts and Sciences (2001). BS, University of Queensland, 1980; PhD, 1986.
- Ring, John Kirk**, Assistant Professor, Department of Management (2008). BS, University of Southern Mississippi, 2000; MBA, 2002; PhD Mississippi State University, 2009.
- Robillard, Mary C.**, Curriculum and Instruction Educator, Department of Curriculum and Instruction (2009). MS, Emporia State University, 1977.
- Robinson, Linda K.**, Assistant Professor, School of Art and Design (1998). BFA, Wichita State University, 1993.
- Robinson, Wade A.**, Vice President, Campus Life and University Relations (2009). BS, Kearney State College, 1989; MA, University of Nebraska-Kearney, 1992; PhD, University of Nebraska-Lincoln, 1995.
- Rodgers, Jennifer L.**, Clinical Educator, School of Nursing (2012). BSN, Newman University, 1995; MSN, Wichita State University, 1999.
- Rogers, Christopher M.**, Professor, Department of Biological Sciences (2000). BS, University of Wisconsin, 1978; MS, Michigan State University, 1982; PhD, Indiana University, 1988.
- Rogers, Michael A.**, Assistant Director of Clinical Education, Department of Physical Therapy (2012). BA, Wichita State University, 1992; DPT, 2008.
- Rogers, Michael E.**, Professor and Chairperson, Department of Human Performance Studies; Research Director, Center for Physical Activity and Aging (1998). BS, Mount Union College, 1991; PhD, Kent State University, 1996.
- Rogers, Nicole L.**, Assistant Professor and Director of Graduate Programs, Department of Public Health Sciences (2007). BS, Mount Union College, 1992; MA, Kent State University, 1994; MEd, University of Texas, 1999; PhD, Wichita State University, 2003.

- Rokhsaz, Kamran**, Professor, Department of Aerospace Engineering (1991). BS, University of Missouri, 1978; MS, 1980; PhD, 1988.
- Rokosz, Francis M.**, Associate Professor and Coordinator of Physical Education Activity Program, Department of Human Performance Studies (1973). BS, Pennsylvania State University, 1969; MA, University of Maryland, 1971.
- Ross, R. Michael**, Sport Management Educator, Department of Sport Management (2010). BA, Wichita State University, 2002; MEd, 2006.
- Ross, Robert H.**, Associate Professor, Department of Marketing (1977). AB, Cornell University, 1964; MBA, 1966; PhD, University of Oklahoma, 1979.
- Roush, Dean K.**, Professor, School of Music (1988). BFA, Ohio University, 1973; MM, Bowling Green State University, 1975; DMA, Ohio State University, 1985.
- Roussel, Brigitte R.**, Associate Professor, Department of Modern and Classical Languages and Literatures; Director, Foreign Language Teacher Education (1990). BA, La Sorbonne, 1976; MA, 1981; PhD, University of Kansas, 1991.
- Russell, Francis L.**, Associate Professor, Department of Biological Sciences (2004). BA, Carlton College, 1992; PhD, University of Texas, 1999.
- Russell, Jeannine M.**, Academic Lecturer, School of Performing Arts (2007). MA, Wichita State University, 1998.
- Saeed, Khawaja**, Associate Professor and Barton Fellow, Department of Finance, Real Estate, and Decision Sciences (2004). BS, University of the Punjab, 1991; MBA, Punjab College of Business Administration, 1993; MBA, Asian Institute of Technology, 1995; PhD, University of South Carolina, 2004.
- Saenz, Humberto**, Assistant Professor, School of Art and Design (2011). BA, Baylor University, 2004; MA, University of Dallas-Irving, 2006; MFA, 2008.
- Sayman, Donna M.**, Assistant Professor, Department of Curriculum and Instruction (2010). BA, Southwestern Assemblies of God College, 1991; MS, Oklahoma State University, 2003; PhD, 2009.
- Scherz, Julie A.**, Associate Professor, Department of Communication Sciences and Disorders (1998). BA, Wichita State University, 1969; MA, 1971; PhD, 1989.
- Scheuerman, Paul D.**, Math Educator and Assistant to Chairperson, Department of Mathematics, Statistics and Physics (1999). BS, Fort Hays State University, 1996; MS, Wichita State University, 1999.
- Schneegurt, Mark A.**, Professor, Department of Biological Sciences (2000). BS, Rensselaer Polytechnic Institute, 1984; MS, 1985; PhD, Brown University, 1989.
- Scholl, Gerald A.**, Assistant Professor, School of Music (2007). BM, Boston University, 1984; MM, New England Conservatory of Music, 1992.
- Schommer-Aikins, Marlene A.**, Professor, Department of Counseling, Leadership, Education and School Psychology (1990). BS, University of Wisconsin-Milwaukee, 1978; MS, 1984; PhD, University of Illinois, 1989.
- Schwendner, Greg W.**, Academic Lecturer, Department of History; Department of Modern and Classical Languages and Literatures (2006, 2012). AM, University of Michigan, 1978; PhD, 1988.
- Schwiethale, Amy C. Baker**, Assistant Professor, School of Performing Arts (2008). BFA, Wichita State University, 2002; MFA, Jacksonville University, 2012.
- Scudder, Rosalind R.**, Professor, Department of Communication Sciences and Disorders (1972). BA, Wichita State University, 1964; MA, 1972; PhD, 1978.
- Sebes, Jennifer A. Morrison**, Instructor, School of Nursing (2010). BSN, St. Luke's College, 1998; MSN, Graceland University, 2002.
- Self, Patricia L.**, Associate Professor, Department of Communication Sciences and Disorders, (1994). BA, Wichita State University, 1984; MA, 1985; PhD, 1991.
- Shaver, Mark D.**, Clinical Audiologist, Cassat Speech-Language-Hearing Clinic (2010). BA, Wichita State University, 2004; PhD, 2010.
- Shaw, Carolyn M.**, Associate Professor and Chairperson, Department of Political Science (2001). BA, Dickinson College, 1991; PhD, University of Texas, 2000.
- Shaw, Jerry**, Instructor, School of Community Affairs (1973). BS, Kansas State University, 1964.
- Shellhammer, Alvin J.**, Fairmount Lecturer, Department of Biological Sciences (2011). BS, Oklahoma State University, 1986; PhD, 1991.
- Shelly, Frances K.**, Professor, School of Music (1973). BM, University of Michigan, 1969; MM, 1970; DMA, 1981.
- Sherman, Mary K.**, Instructor and Assistant Director of the Writing Program, Department of English (1990). BA, Wichita State University, 1975; MA, 1985.
- Shuai, Bin**, Associate Professor, Department of Biological Sciences (2005). BS, Nanjing University, 1993; MS, 1996; PhD, University of California-Riverside, 2003.
- Shukaev, Leonid V.**, Assistant Professor, School of Music (2010). BM, 1984, St. Petersburg Conservatory of Music – Russia; MM-PhD, 1989.
- Simon, Jodie C.**, Academic Lecturer, Department of Sociology (2013). AA, Wichita State University, 2003; BA, 2006; MA, 2010; MALS, 2012.
- Sinha, Kaushik**, Assistant Professor, Department of Electrical Engineering and Computer Science (2012). BT, National Institute of Technology-Warangal, India, 1997; MT, Indian Institute of Technology, 2002; MS, Ohio State University, 2009; PhD, 2010.
- Sipes, Sandra C.**, Academic Lecturer, Elliott School of Communication (2009). MA, Wichita State University, 2006.
- Skinner, Steven R.**, Professor, Department of Electrical Engineering and Computer Science; Associate Dean for Graduate Education and Assessment, College of Engineering (1991). BS, University of Iowa, 1985; MS, 1988; PhD, 1991.
- Slieter, Lorita J.**, Academic Lecturer, Department of Communication Sciences and Disorders (2004, 2013). BGS, Wichita State University, 1988.
- Small, Shirlene Y.**, Academic Lecturer, Department of Sociology (2010). BA, Wichita State University, 1999; MA, 2001.
- Smith, Barbara S.**, Professor, Department of Physical Therapy (1985). BS, University of Wisconsin-Madison, 1966; MS, 1981; PhD, 1985.
- Smith, Martha J.**, Associate Professor, School of Community Affairs (2002). BA, Brown University, 1978; JD, New York University School of Law, 1981; MA, Rutgers University, 1995; PhD, 1996.
- Smith, Nicholas E.**, Professor and Associate Director, School of Music (1975). BM, Pittsburg State University, 1970; MM, University of Rochester Eastman School of Music, 1972; DMA, 1980.
- Smith, Royce W.**, Associate Professor, School of Art and Design (2005). AB, Wabash College, 1996; MA, University of Queensland, 1999; MA, Purdue University, 2000; PhD, University of Queensland, 2004.
- Snyder, James J.**, Erker Faculty of Distinction Endowed Professor, Department of Psychology (1977). BA, Loras College, 1968; MA, Southern Illinois University, 1974; PhD, 1977.
- Snyder, Nancy McCarthy**, Associate Professor and Director, Hugo Wall School of Urban and Public Affairs and Center for Urban Studies (1977). AB, Clarke College, 1970; MS, Southern Illinois University, 1973; PhD, 1977.
- Soles, David E.**, Professor and Chairperson, Department of Philosophy; Director, Master of Arts in Liberal Studies Program, Fairmount College of Liberal Arts and Sciences (1974, 1982). BA, University of Pittsburgh, 1969; PhD, Johns Hopkins University, 1977.
- Soles, Deborah H.**, Professor, Department of Philosophy (1973, 1975). BA, George Washington University, 1969; MA, Johns Hopkins University, 1973; PhD, 1975.
- Solomey, Anna E.**, Academic Lecturer, Department of Mathematics, Statistics and Physics (2007, 2013). MS, Kazan State University, 1991.
- Solomey, Nickolas**, Professor and Director of Physics, Department of Mathematics, Statistics and Physics (2007). BS, Mount Union College, 1983; MS, Ohio State University, 1987; PhD, University of Geneva, 1992.
- Spillman, Susan V.**, Academic Lecturer, Department of English (2012). BA, University of Virginia, 1985; JD, Case Western Reserve University, 1989; MFA, Wichita State University, 2010.
- Spurgeon, Larry D.**, Barton School Senior Lecturer and Jones Faculty Fellow in Business Ethics, Department of Finance, Real Estate, and Decision Sciences (2004). BBA, Washburn University, 1980; JD, University of Idaho, 1982.
- Starkey, Linda S.**, Associate Professor, Director and Program Director of Musical Theatre, School of Performing Arts (1993). BME, University of Kansas, 1968; MM, Fort Hays State University, 1972; MA, Wichita State University, 1990.
- Steck, James E.**, Professor, Department of Aerospace Engineering (1990). BS, University of Missouri, 1980; MS, 1984; PhD, 1989.
- Steinke, Elaine E.**, Professor, School of Nursing (1990). BSN, Wichita State University, 1979; MN, 1982; PhD, Kansas State University, 1987.
- Stephen, Frederick R.**, Instructor, Department of Public Health Sciences (2011). BA, Duke University, 1964; MHA, Baylor University, 1973.
- Sternfeld-Dunn, Aleksander B.**, Assistant Professor, School of Music (2011). BA, California State University, 2003; MA, Washington State University, 2006; DMA, University of Hartford, 2009.
- Stoldt, G. Clayton**, Professor and Chairperson, Department of Sport Management (1998). BA, University of Oklahoma, 1984; MS, 1990; DEd, 1998.
- Stoltenberg, Clyde D.**, Professor and Barton Distinguished Chair in International Business, Department of Management; Associate Director, Center for International Business Advancement (2007). BA, University of Iowa, 1969; JD, Harvard University; 1972, MIA, Columbia University, 1985.

- Strattman, Katherine H.**, Associate Professor, Department of Communication Sciences and Disorders (1985). BA, Midland Lutheran College, 1970; MA, Wichita State University, 1971; PhD, 2001.
- Streiff, Marcia G.**, Clinical Educator, School of Nursing (2012). AAS, Seward County Community College, 1994; BSN, Kansas Newman College, 1997; MSN, University of Kansas, 2000.
- Sulyok, Levente**, Assistant Professor, School of Art and Design (2007). AA and AS, Santa Rosa Junior College, 2001; BA, University of California-Berkeley, 2003; MFA, Rhode Island School of Design, 2006.
- Sun, Xiao-Ming**, Associate Professor, Department of Communication Sciences and Disorders (2004). BMed, Hunan College of Chinese Medicine, 1983; MMed, 1987; MA, University of Connecticut, 1996; PhD, 1998.
- Sun, Ziqi**, Professor, Department of Mathematics, Statistics and Physics (1990). BS, Chinese University of Science and Technology, 1982; MA, University of California, 1985; PhD, 1987.
- Taher, Syed M.**, Associate Professor, Department of Mathematics, Statistics and Physics (1976). BS, Dacca University, 1964; MS, 1966; MA, California State University, 1970; PhD, Washington State University, 1974.
- Talaty, Erach R.**, Professor and Assistant Chairperson, Department of Chemistry (1969). BSC (Honors), Nagpur University, 1948; PhD, 1954; PhD, Ohio State University, 1957.
- Tamam, Perlekar**, Engineering Educator, College of Engineering (2012). BS, Nagarjuna University, 2004; MS, Wichita State University 2006; PhD, 2012.
- Tartaroglu, Semih**, Assistant Professor, Department of Finance, Real Estate and Decision Sciences (2008). BS, Bilkent University-Turkey, 1998; MS, Texas A&M University, 2002; PhD, 2008.
- Taylor, Samuel B.**, Assistant Professor, Department of English (2011). BA, Swarthmore College, 1997; MFA, University of Texas-Austin, 2002; MFA, University of Virginia-Charlottesville, 2010.
- Taylor, Sarah M.**, Director of Undergraduate Programs, Department of Public Health Sciences (2012). MS, Wichita State University, 2006.
- Teemant, Boyd**, Instructor, Department of Counseling, Leadership, Education and School Psychology (2012). MS, Utah State University, 2005.
- Terry, Patrick A.**, Senior Fellow Building Level Programs, Department of Counseling, Leadership, Education and School Psychology (2008). BS, University of Kansas, 1974; MS, 1977; EdD, 1984.
- Thiessen, Kellie R.**, Instructor, School of Nursing (2011). BSN, Eastern Mennonite University, 1995; MSN, Georgetown University, 2002.
- Thomas, William J.**, ESL Specialist, Intensive English Language Center (1995). BA, Indiana University-Bloomington, 1967; MA, 1969.
- Thompson, Johnnie**, Associate Professor, Department of Curriculum and Instruction (1993). BS, University of Kansas, 1968; MS, Central Missouri State University, 1975; EdD, Kansas State University, 1992.
- Thrane, Lisa E.**, Associate Professor, Department of Sociology (2005). BA, Simpson College, 1995; MS, Iowa State University, 1999; PhD, 2003.
- Tomanek, Amanda C.**, Academic Lecturer, Intensive English Language Center (2013). MA, Columbia University, 2012.
- Tomblin, John S.**, Interim Associate Provost for Research, Division of Academic Affairs and Research; Executive Director, National Institute for Aviation Research; Bloomfield Distinguished Professor, Department of Aerospace Engineering (1994). BSAE, West Virginia University, 1990; MSME, 1991; PhD, 1994.
- Toops, Gary H.**, Professor, Department of Modern and Classical Languages and Literatures (1989). BA, McGill University, 1975; MA, University of British Columbia, 1979; MA, Yale University, 1980; Master of Philosophy, 1982; PhD, 1985.
- Torbenson, Craig L.**, Associate Professor, Department of History (1989). BS, Brigham Young University, 1982; MA, 1985; PhD, University of Oklahoma, 1992.
- Tran, Anh Q.**, Associate Professor, Department of Curriculum and Instruction (2002). BA, Saigon University, 1973; MA, Wichita State University, 1993; PhD, Kansas State University, 2002.
- Trechak, Andrew, Jr.**, Associate Professor, School of Music (1980). BM, Oberlin College Conservatory of Music, 1973; MM, State University of New York-Stonybrook, 1975; DMA, University of Texas, 1988.
- Trilli, Kathryn M.**, Clinical Educator, Department of Dental Hygiene (2010). AS, Sheridan College, 1973; BS, Midwestern State University, 1981.
- Twomey, Janet M.**, Professor, Department of Industrial and Manufacturing Engineering (1994). BA, University of Pittsburgh, 1990; MS, 1992; PhD, 1995.
- Unruh, Susan M.**, Assistant Professor, Department of Counseling, Leadership, Education and School Psychology (2010). BA, Bethel College, 1975; MEd, University of Kansas, 1980; EdS, Wichita State University, 1991; PhD, University of Kansas, 2007.
- Vance, Jeanne M.**, Assistant Professor and Placement Coordinator, School of Music (2012). BME, Wichita State University, 1975; BM, 1975; MME, 1977; MEd, 1998.
- Vanderburgh, William L.**, Executive Director, Office of Faculty Development and Student Success, Division of Academic Affairs and Research; Associate Professor, Department of Philosophy (2001). BA (Honors), University of Western Ontario, 1993; MA, 1994; PhD, 2001.
- Vanravenhorst-Bell, Heidi A.**, Academic Lecturer, Department of Public Health Sciences (2012). BA, Wichita State University, 1999; MEd, 2005.
- Vasquez, Sabrina C.**, Dance Teacher and Choreographer, School of Performing Arts (2001). Professional experience.
- Vermillion, Mark C.**, Associate Professor, Department of Sport Management, (2006). BS, Kansas State University, 2000; MA, Wichita State University, 2003; PhD, Oklahoma State University, 2006.
- Vijverberg, Chu-Ping C.**, Associate Professor, Department of Economics (2006). MS, Southern Methodist University, 2000; PhD, 2002.
- Wadman, Deborah**, Fairmount Lecturer, Department of Modern and Classical Languages and Literatures (2004). BS, University of Kansas, 1974; MA, Wichita State University, 1997.
- Wagle, Liana A.**, Academic Lecturer, Department of Modern and Classical Languages (2011). BA, Wichita State University, 2009.
- Walker, Mary**, Assistant Professor and Electronic Resources Librarian, University Libraries (2007). BS, Emporia State University, 1992; MLS, 2000.
- Walker, Melissa A.**, Associate Professor, Hugo Wall School of Urban and Public Affairs and Center for Urban Studies (2006). BA, Northwestern University, 1976; MPA, Harvard University, 1992; PhD, University of Chicago, 2005.
- Wallace, Michelle M.**, Clinical Educator, Physician Assistant Program (2012). BS, Kansas State University, 2001; BS, Wichita State University, 2005.
- Walsh, Mark G.**, Assistant Professor, Department of Mathematics, Statistics and Physics (2012). Higher Diploma, National University of Ireland, 2000; MS, 2002; PhD, University of Oregon, 2009.
- Walton, Nicholas G.**, Human Performance Educator, Department of Human Performance Studies (2010). BA, Wichita State University, 2006; MEd, 2009.
- Wang, Pingfeng**, Assistant Professor, Department of Industrial and Manufacturing Engineering (2010). BE, University of Science and Technology-Beijing, 2001; MS, Tsinghua University-Beijing, 2006; PhD, University of Maryland-College Park, 2010.
- Ward, Peggy A.**, Barton School Lecturer, Department of Finance, Real Estate, and Decision Sciences (1998). BBA, Wichita State University, 1988; MBA, 1996.
- Washburn, Jane L.**, Clinical Educator, School of Nursing (2007). BSN, Wichita State University, 1973; MSN, Texas Women's University, 1976.
- Waters, Mary A.**, Associate Professor, Department of English (2004). BA, Millersville University of Pennsylvania, 1979; MA, San Francisco State University, 1994; PhD, University of California, 2001.
- Watkins, John M.**, Professor and Chairperson, Department of Electrical Engineering and Computer Science (2004). BS, University of Nebraska, 1989; MS, Ohio State University, 1991; PhD, 1995.
- Webb, Marsha, L.**, ESL Specialist, Intensive English Language Center (1993). BS, Emporia State University, 1976.
- Weems, Robert E.**, Garvey Distinguished Professor of Business History, Department of History (2011). BA, Western Illinois University, 1973; MA, Boston University, 1975; MA, University of Wisconsin-Milwaukee, 1982; PhD, University of Wisconsin-Madison, 1987.
- Weheba, Gamal S.**, Associate Professor, Department of Industrial and Manufacturing Engineering (2000). BS, Menoufia University, 1981; MS, 1987; PhD, University of Central Florida, 1996.
- Weitzel, Catherine A.**, Instructor, School of Nursing (2003). BSN, Bethel College, 2001; MSN, Wichita State University, 2003.
- Whitman, Lawrence E.**, Professor, Department of Industrial and Manufacturing Engineering; Associate Dean for Engineering Education, College of Engineering (1999). BSET, Oklahoma State University, 1984; MSIE, 1986; PhD, University of Texas, 1999.
- Widener, Russell D.**, Professor and Director, School of Music (1981). BM, Baylor University, 1968; MM, Catholic University, 1972.
- Wilks, Kerry K.**, Associate Professor, Department of Modern and Classical Languages and Literatures (2004). BA, Rhodes College, 1991; MA, Auburn University, 1996; PhD, University of Chicago, 2004.



- Williams, Virginia K.**, Associate Professor and Acquisitions Librarian, University Libraries (2008). BA, Furman University, 1985; MLS, University of South Carolina, 1988; JD, 1989; SLIS, 2004.
- Wilson, Camilla M.**, Associate Professor and Chairperson, Department of Physical Therapy (2002). BS, University of Kansas, 1970; MS, 1978; PhD, 1992.
- Wilson, Eric M.**, Instructor, Elliott School of Communication (2009). BA, Wichita State University, 2004; MA, 2006.
- Wimalasena, Kandatege**, Professor, Department of Chemistry (1989). BS, University of Peradeniya, 1977; PhD, Georgia Institute of Technology, 1986.
- Wine, Thomas R.**, Professor and Director of Choirs, School of Music (1995). BAME, Alderson-Broadduds College, 1980; MME, Duquesne University, 1982; PhD, Florida State University, 1994.
- Wirth, Karen A.**, Academic Lecturer, School of Nursing (2007). MSN, Wichita State University, 1995.
- Wolcutt, Janet L.**, Barton School Lecturer and Director of Center for Economic Education, Department of Economics (1982). BA, Baldwin Wallace College, 1976; MA, Ohio State University, 1978.
- Wolfe, Donna Hawley**, Assistant Provost, Division of Academic Affairs and Research; Professor, School of Nursing (1981). BSN, University of Iowa, 1968; MA, University of Missouri, 1971; MN, University of Kansas, 1980; EdD, 1980.
- Wolff, James A.**, Professor, Department of Management, (1994). BS, University of Idaho, 1972; MBA, Washington State University, 1990; PhD, 1995.
- Wood, Michael A.**, Executive Director, Media Resources Center; Assistant Professor, Elliott School of Communication (1985). BS, Kansas State University, 1969; MS, 1973; MFA, University of Southern California, 1979.
- Woods, Dexter A.**, Director, Advanced Education in General Dentistry; Senior Clinical Educator, Department of Public Health Sciences (2007). BS, Tuskegee University, 1992; DDS, Howard University, 1996. Northeast Regional Board Certification, 1997; Southern Regional Board Certification, 2003.
- Woods, Nicole C.**, Assistant Professor, Department of Public Health Sciences (2012). BS, Wichita State University, 2007; MA, University of Kansas, 2009; MPH, University of Kansas, 2010; PhD, 2011.
- Woods, William F.**, Hughes Distinguished Professor, Department of English (1974). AB, Dartmouth College, 1964; MA, University of Chicago, 1967; PhD, Indiana University, 1975.
- Wright, David W.**, Interim Associate Provost for Data Systems and Strategic Planning, Division of Academic Affairs and Research; Professor, Department of Sociology; (1993). BA, Purdue University, 1987; MA, 1989; PhD, 1992.
- Wyant, Nicholas N.**, Assistant Professor and Research and Information Services Librarian, University Libraries (2010). BA, Wichita State University, 2004; MA, 2007; MA, University of Iowa, 2008.
- Xu, David Jingjun**, Assistant Professor, Department of Finance Real Estate and Decision Sciences (2011). BS, Lingnan University-Hong Kong, 2002; MS, City University of Hong Kong, 2005; PhD, University of British Columbia, 2011.
- Yang, Chihdar Charles**, Boeing Global Engineering Leadership Professor, Department of Aerospace Engineering (1997). BS, National Taiwan University, 1985; MS, 1987; PhD, Louisiana State University, 1993. Licensed Professional Engineer, Louisiana.
- Yao, Li**, Assistant Professor, Department of Biological Sciences (2011). BS, Capital Medical University-Beijing; MS, Beijing Institute of Traumatology and Orthopaedic Surgery, 2000; PhD, University of Aberdeen-UK, 2005.
- Yeager, Samuel J. III**, Professor and Program Coordinator, Hugo Wall School of Urban and Public Affairs and Center for Urban Studies (1976). BA, University of Massachusetts, 1967; MLS, George Peabody College, 1968; MS, Troy State University, 1971; MPA, Auburn University, 1972; DPA, University of Georgia, 1976.
- Yildirim, Mehmet B.**, Associate Professor, Department of Industrial and Manufacturing Engineering (2002). BS, Bogazici University, 1994; MS, Bilkent University, 1996; PhD, University of Florida, 2001.
- Young, Kaelin C.**, Assistant Professor, Department of Human Performance Studies (2012). BS, University of Puget Sound, 2005; MEd, Wichita State University, 2008; PhD, University of Oklahoma, 2012.
- Young, Robert C.**, Assistant Professor, School of Music (2010). BM, University of South Carolina, 2006; MM, University of Michigan-Ann Arbor; 2008; DMA, 2010.
- Yu, Szde D.**, Assistant Professor, School of Community Affairs (2012). BS, Tunghai University-Taiwan, 2001; MS, University of Missouri-Kansas City, 2005; PhD, Indiana University of Pennsylvania, 2010.
- Zellers, Laura M.**, Barton School Lecturer, School of Accountancy (2009). MAcct, University of Kansas, 1997.
- Zettle, Robert D.**, Professor, Department of Psychology (1984). BA, Wilkes University, 1974; MA, Bucknell University, 1976; PhD, University of North Carolina, 1984.
- Ziegelbein, Jacie L.**, Academic Lecturer, Department of Mathematics, Statistics and Physics (2006). BSE, Greenville College, 2001; MS, Wichita State University, 2006.
- Zoller, Peter T.**, Associate Professor, Department of English (1973). BA, University of San Francisco, 1965; MA, Claremont Graduate School, 1966; PhD, 1970.

# Retired Faculty

- Adamson, Carl L.  
 Adamson, M. Ginette  
 Allen, Anneke S.  
 Alexander, David R.  
 Alley, Robert D.  
 Anderson, Robert E.  
 Arteaga, Lucio  
 Bair, Sue F.  
 Bajaj, Prem N.  
 Bakken, Linda L.  
 Ballenger, Marcus T.  
 Barrett, Elwin M.  
 Bateman, Morita M.  
 Belt, John A.  
 Bezzi, Diodato R.  
 Bish, John T.  
 Bogner, Donna J.  
 Born, John D.  
 Borresen, C. Robert  
 Boughton, Harrison C.  
 Bowman, Barbara E.  
 Bowyer, James M.  
 Boyd, John D.  
 Brandhorst, Armin L.  
 Bravo-Elizondo, Pedro J.  
 Britton, Clark V., Jr.  
 Bush, Martin H.  
 Byrum, Donald R.  
 Campbell, Jolynne  
 Carper, William R.  
 Cavarozzi, Joyce P.  
 Chambers, Randall M.  
 Chandler, Anna M.  
 Chang, Dae H.  
 Chaudhuri, Jharna  
 Chou, Shang-Ching  
 Christensen, Donald G.  
 Clark, Frances L.  
 Combs, Joseph C.  
 Conrad, Mary E.  
 Corbett, Donald L.  
 Craig, Andrew J.  
 Cromwell, Paul F.  
 Cuthbertson, K. Jean  
 Daughtery, Sarah B.  
 Davis, Gayle R.  
 Decker, Jay C.  
 Deskins, James W.  
 Douglas, Donald M.  
 Duell, Dennis C.  
 Duell, Orpha K.  
 Dunning, Wayne W.  
 Duram, James C.  
 Eckert, Ruth M.  
 Edgington, Mary P.  
 Egbert, Robert I.  
 Engelhardt, Jon M.  
 Erickson, James P.  
 Ericson, David F.  
 Farnsworth, David N.  
 Fatehi-Sedeh, Kamal  
 Fife, Natasha M.  
 Fisher, Glenn W.  
 Foran, Michael F.  
 Foster, Donald L.  
 Fowler, Thomas A.  
 Froning, Dorothy Gardner  
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# Key to Course Descriptions

## Symbols

When two course numbers are joined by a hyphen (-), the first semester is prerequisite to the second; when the numbers have an ampersand (&) between them, the two semesters may be taken in either order. Unless specifically noted otherwise, the first course listed is offered in the fall semester and the second in the spring.

The number of hours of credit for each course is indicated in parentheses following the course title. The number of class meetings per week is 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                                    | CHEM | Chemistry   | IME  | Industrial and Manufacturing Engineering       |
| AE   | Aerospace Engineering                         | CHIN | Chinese   | ITAL | Italian  |
| AGE  | Aging Studies                                 | CI   | Curriculum and Instruction  | JAPN | Japanese                                       |
| ANTH | Anthropology                                  | CJ   | Criminal Justice  | LASI | Liberal Arts Interdisciplinary                 |
| ARAB | Arabic  | CLES | Counseling, Educational Leadership, Educational and School Psychology | LATN | Latin  |
| ARTE | Art Education                                 | COMM | Communication   | LING | Linguistics                                    |
| ARTF | Art and Design Foundation                     | CS   | Computer Science  | MATH | Mathematics                                    |
| ARTG | Graphic Design                                | CSD  | Communication Sciences and Disorders                                  | MBA  | Master of Business Administration              |
| ARTH | Art History                                   | DANC | Dance   | MCLL | Modern and Classical Languages and Literatures |
| ARTS | Studio Arts                                   | DH   | Dental Hygiene  | ME   | Mechanical Engineering                         |
| BADM | General Business Administration               | DS   | Decision Sciences   | MGMT | Management                                     |
| BIOE | Bioengineering                                | ECON | Economics   | MICT | Mobile Intensive Care Technician               |
| BIOL | Biological Sciences                           | EE   | Electrical Engineering  | MIS  | Management Information Systems                 |
| BLAW | Business Law                                  | EEPS | Earth, Environmental and Physical Sciences                            | MKT  | Marketing                                      |
| CESP | Counseling, Educational and School Psychology | EL   | Educational Leadership  | MLS  | Medical Laboratory Sciences                    |
|      |   | EMBA | Executive Master of Business Administration                           | MUSA | Applied Music                                  |
|      |   | ENGL | English Language and Literature                                       | MUSC | Musicology—Composition                         |
|      |   | ENGR | General Engineering   | MUSE | Music Education                                |
|      |   | ENGT | Engineering Technology  | MUSP | Music Performance                              |
|      |   | ENTR | Entrepreneurship  | NURS | Nursing  |
|      |   | ETHS | Ethnic Studies  | PA   | Physician Assistant                            |
|      |   | FA   | Fine Arts—General   | PADM | Public Administration                          |
|      |   | FIN  | Finance   | PC   | Personal Computing                             |
|      |   | FREN | French  | PHIL | Philosophy                                     |
|      |   | FS   | Forensic Science  | PHS  | Public Health Sciences                         |
|      |   | GEOG | Geography   | PHYS | Physics  |
|      |   | GEOI | Geology   | POLS | Political Science                              |
|      |   | GERM | German  | PSY  | Psychology                                     |
|      |   | GREK | Greek   | PT   | Physical Therapy                               |
|      |   | HIST | History   | RE   | Real Estate and Land Use Economics             |
|      |   | HMCD | Health Services Management and Community Development                  | REL  | Religion                                       |
|      |   | HNRS | Honors Program  | RUSS | Russian  |
|      |   | HP   | Health Professions—General  | SCWK | Social Work                                    |
|      |   | HPS  | Human Performance Studies   | SOC  | Sociology                                      |
|      |   | HRM  | Human Resource Management   | SMGT | Sport Management                               |
|      |   | HS   | Health Sciences   | SPAN | Spanish  |
|      |   | IB   | International Business  | STAT | Statistics                                     |
|      |   | IE   | Intensive English   | THEA | Theatre  |
|      |   |      |   | WOMS | Women's Studies                                |

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## Degrees and Academic Majors

| W. Frank Barton School of Business  |  |   |    |   |
|---|--|---|----|---|
| Accounting  |  | B | M  |   |
| Business Administration   |  |   | M  |   |
| Economics**   |  | B | M  |   |
| Entrepreneurship**  |  | B |    |   |
| Executive MBA   |  |   | M  |   |
| Finance**   |  | B |    |   |
| General Business  |  | B |    |   |
| Human Resource Management   |  | B |    |   |
| International Business  |  | B |    |   |
| Management  |  | B |    |   |
| Management Information Systems  |  | B |    |   |
| Marketing**   |  | B |    |   |
| College of Education  |  |   |    |   |
| Athletic Training   |  | B |    |   |
| Counseling  |  |   | M  |   |
| Curriculum & Instruction  |  |   | M  |   |
| Education: PK-12; Art, Music, Physical Education, French, Spanish, Early Childhood Unified, Elementary Education, Middle Level; English, Math, Science, History Comprehensive, Secondary Level; Biology, Chemistry, Earth & Space Science, English Language Arts, History/Government, Math, Physics |  | B |    |   |
| Educational Leadership  |  |   | M  | D |
| Educational Psychology  |  |   | M  |   |
| Exercise Science  |  | B | M  |   |
| School Psychology   |  |   |    | S |
| Special Education: Adaptive, Early Childhood, Functional, Gifted  |  |   | M  |   |
| Sport Management  |  | B | M  |   |
| Teaching  |  |   | M  |   |
| College of Engineering  |  |   |    |   |
| Aerospace Engineering   |  | B | M  | D |
| Bioengineering  |  | B |    |   |
| Computer Engineering  |  | B |    |   |
| Computer Networking   |  |   | M  |   |
| Computer Science  |  | B | M  | D |
| Electrical Engineering  |  | B | M  |   |
| Electrical Engineering and Computer Science   |  |   |    | D |
| Engineering Technology  |  | B |    |   |
| Engineering Management  |  |   | M  |   |
| Industrial Engineering  |  | B | M  | D |
| Engineering for Manufacture   |  | B |    |   |
| Mechanical Engineering  |  | B | M  | D |
| College of Fine Arts  |  |   |    |   |
| Art<br>Emphases: Art Education, Art History   |  | B |    |   |
| Art - Studio Art<br>Emphases: Ceramics, Drawing and Painting, Printmaking, Sculpture  |  | B | M* |   |
| Graphic Design  |  | B |    |   |
| Music<br>Emphases: History __ Literature, Performance, Piano Pedagogy, Theory __ Composition  |  | B | M  |   |
| Music Education   |  | B | M  |   |
| Performing Arts<br>Emphases: Dance, Music Theatre, Theatre Performance, Theatre Design/Technical Theatre  |  | B |    |   |

| College of Health Professions   |   |   |    |   |
|---|---|---|----|---|
| Aging Studies   |   |   | M  |   |
| Audiology   |   |   |    | D |
| Communication Sciences and Disorders  |   | B | M  | D |
| Dental Hygiene  |   | B |    |   |
| Health Sciences   |   | B |    |   |
| Health Services Management & Community Development  |   | B |    |   |
| Medical Laboratory Sciences   |   | B |    |   |
| Nursing   |   | B | M  | D |
| Physical Therapy  |   |   |    | D |
| Physician Assistant   |   |   | M  |   |
| Fairmount College of Liberal Arts and Sciences  |   |   |    |   |
| Anthropology  |   | B | M  |   |
| Biological Sciences   |   | B | M  |   |
| Chemistry (Chemistry, Chemical Science)   |   | B | M  | D |
| Communication: Strategic Communication, Broadcast Journalism, Electronic Media, Integrated Marketing Communication, Print Journalism, Open Emphasis   |   | B | M  |   |
| Creative Writing  |   |   | M* |   |
| Criminal Justice  |   | B | M  |   |
| Earth Environmental and Physical Sciences (EEPS)  |   |   | M  |   |
| Economics   |   | B |    |   |
| English (Creative Writing, English, Language and Literature)  |   | B | M  |   |
| Field Majors: Aging Studies, Art History, Biochemistry, Chemistry/Business, Classical Studies, CSD, Computer Science, Ethnic Studies, Geography, German, International Studies, Mathematics, Music Composition, Philosophy, Physics, Religion, Theatre, and all LAS Majors. |   | B |    |   |
| Forensic Science  |   | B |    |   |
| General Studies/Liberal Studies: Aging Studies, Art History, CSD, Computer Science, Ethnic Studies, Geography, German, Mathematics, Music Composition, Philosophy, Physics, Religion, Theatre, and all LAS Majors   | A | B | M  |   |
| Geology   |   | B |    |   |
| History   |   | B | M  |   |
| Mathematics (Mathematics, Statistics)   |   | B | M  | D |
| Modern and Classical Languages and Literatures Emphases: French, Latin, Spanish   |   | B |    |   |
| Philosophy  |   | B |    |   |
| Physics   |   | B |    |   |
| Political Science   |   | B |    |   |
| Pre-Professional Programs: Law, Medicine, Dentistry, Optometry, Pharmacy, Podiatry, Veterinary Medicine, Chiropractic   |   | B |    |   |
| Psychology  |   | B | M  | D |
| Public Administration   |   |   | M  |   |
| Social Work   |   | B | M  |   |
| Sociology   |   | B | M  |   |
| Spanish   |   |   | M  |   |
| Women's Studies   |   | B |    |   |

\*Master of Fine Arts, a terminal degree

\*\*Real Estate emphasis available in these areas

A = Associate B = Bachelor M = Master S = Specialist D = Doctorate

# Wichita State University MAP AND BUILDING ABBREVIATIONS

### CAMPUS

Wichita State's 320-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 (I-96 Wichita).

### PARKING

Visitors to the Wichita State campus should obtain temporary parking permits from the Wichita State University Police Department, 2000 Century. 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 hangtag must be properly displayed. Student parking is available in the lots marked on the next page with diagonal stripes.

### MAP LEGEND

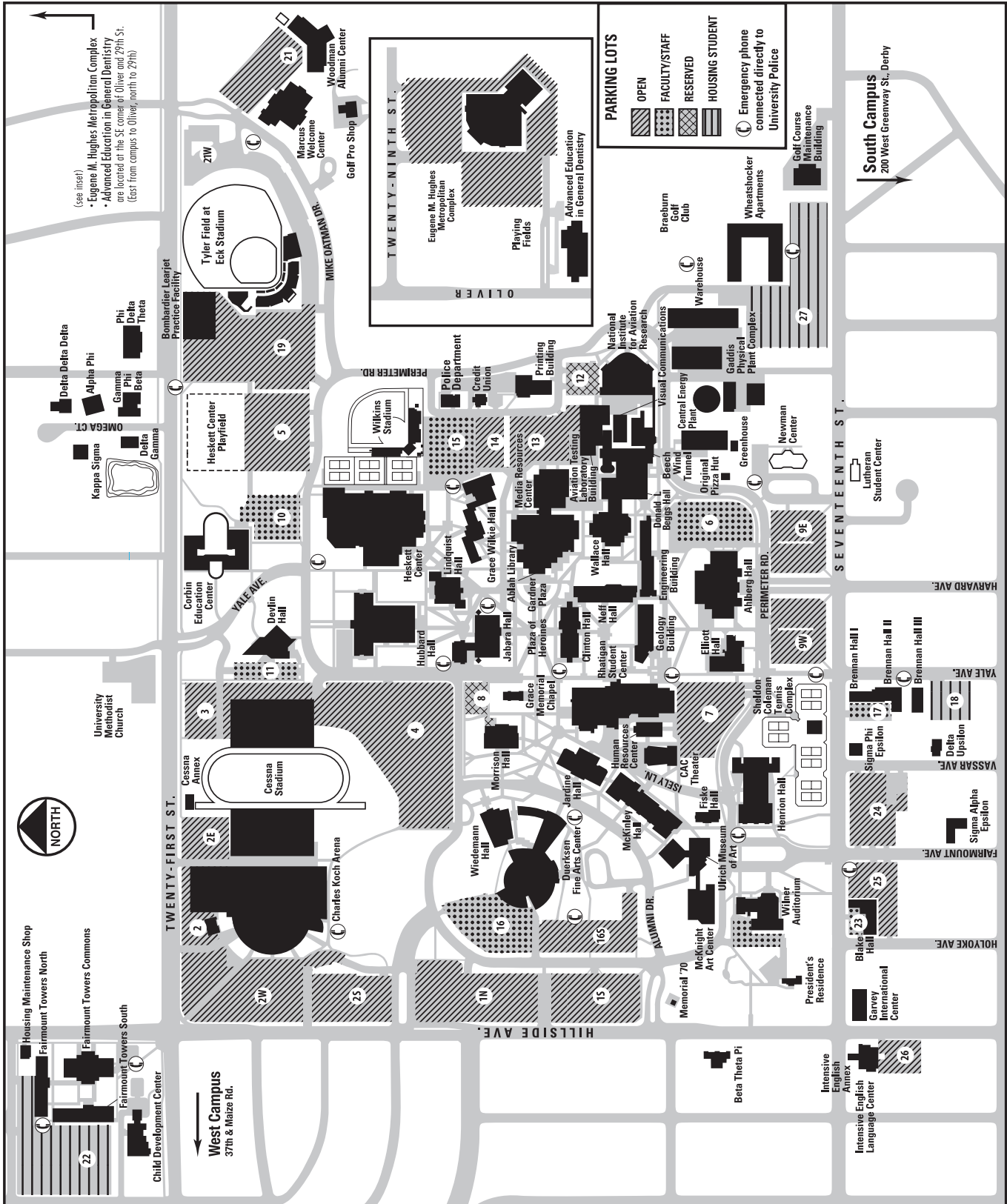
Buildings are listed in alphabetical order, and building abbreviations, where they exist, are indicated to the left of the building name. College, student service and major administrative offices are listed with the building that houses them.

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.

| ABBREV. | NAME   | AREA  | ABBREV. | NAME  | AREA  | ABBREV. | NAME  | AREA  |
|---------|--|-------|---------|---|-------|---------|---|-------|
| AL      | ABLAH LIBRARY ☐  | D/5   | CI      | JAMES S. GARVEY INTERNATIONAL CENTER ...  | A-B/7 | MH      | MORRISON HALL ☐   | C/4   |
| AH      | AHLBERG HALL ☐   | C-D/6 | GM      | GRACE MEMORIAL CHAPEL   | C/4   |         | <i>Wheelchair entry on east side.</i>   |       |
| AR      | AVIATION RESEARCH, NATIONAL INSTITUTE FOR  | D/5   | GW      | GRACE WILKIE HALL ☐   | D/4   |         | ☐ Central Services, Purchasing  |       |
| BH      | BEECH (WALTER H.) WIND TUNNEL  | D/5   |         | ☐ Career Services   |       |         | ☐ Institutional Research  |       |
| BL      | BLAKE HALL (KMUW-FM)   | B/7   |         | ☐ Cooperative Education   |       |         | ☐ Post Office   |       |
| BOM     | BOMBARDIER LEARJET PRACTICE FACILITY   | E/2   |         | ☐ Counseling and Testing Center   |       |         | ☐ President, Vice Presidents  |       |
| BKS     | BOOKSTORE  | C/5   |         | ☐ Liberal Arts and Sciences Advising Center   |       |         | ☐ University Relations  |       |
| BR      | BRENNAN I, II, III (South end of RSC)  | C/7   | HA      | HENNON ANNEX  | B-C/6 | NH      | NEFF HALL ☐   | C-D/5 |
| CAC     | CAMPUS ACTIVITIES CENTER (CAC) ☐ (See Rhatigan Student Center (RSC))               | C/5   | HC      | HENRION HALL (No elevator)  | B-C/6 |         | ☐ Honors Program  |       |
| CA      | CAC THEATER  | C/5   | HE      | HESKETT CENTER ☐  | D/3   | NEW     | NEWMAN CENTER   | D/6   |
| CD      | CESSINA STADIUM  | B-C/2 | HO      | HOSPITAL (Off-campus hospitals)   |       | OC      | OFF-CAMPUS  |       |
| CH      | CHILD DEVELOPMENT CENTER, UNIVERSITY   | A/1   | HH      | R. DEE HUBBARD HALL ☐   | C/3   | PD      | POLICE DEPARTMENT   | D/4   |
| CHL     | CLINTON HALL ☐ (Wheelchair ramp on southwest corner)                               | C/5   | HR      | HUMAN RESOURCES CENTER  | C/5   | PR      | PRESIDENT'S RESIDENCE   | B/6   |
| CE      | CORBIN EDUCATION CENTER ☐ (☐ W. Frank Barton School of Business)                   | D/2   | IA      | INTENSIVE ENGLISH LANGUAGE CENTER ANNEX   | A/7   | PS      | PRINTING SERVICES   | D/4   |
| CE      | COLLEGE OF EDUCATION   |       | IB      | JABARA HALL ☐   | C/4   | RS      | RHATIGAN STUDENT CENTER (RSC) ☐   | C/5   |
| CU      | CREDIT UNION   | D/4   |         | ☐ Computing Center  |       |         | <i>Wheelchair entry possible at north and west entrances. Electric doors on both.</i> |       |
| DH      | DEVILIN HALL ☐   | C/2   | JH      | JARDINE HALL ☐  | C/5   | SC      | SHELDON COLEMAN TENNIS COMPLEX  | C/6   |
| DA      | DUERKSEN FINE ARTS CENTER ☐ (Wheelchair entry possible but not at every entrance.) | B/5   |         | ☐ College of Fine Arts  |       | SC      | SOUTH CAMPUS (Derby, 200 W. Greenway, Suite 150)                                      |       |
| DA      | DUKE OF MUSIC and Miller Concert Hall  |       |         | ☐ Financial Operations  |       |         | STUDENT HEALTH SERVICES (See Ahlberg Hall)  | C-D/4 |
| ES      | ECK STADIUM (TYLER FIELD)  | E/2   |         | ☐ Graduate School   |       |         | ULRICH MUSEUM OF ART, EDWIN A.  | B/6   |
| EB      | ENGINEERING BUILDING   | C-D/5 | KA      | KIMUW-FM (SEE BLAKE HALL.)  | B/7   |         | VETERANS HOSPITAL (5500 E. Kellogg)   |       |
| ER      | ENGINEERING RESEARCH LAB ☐   | D/5   | LH      | CHARLES KOCH ARENA  | B/2   |         | VISUAL COMMUNICATIONS   | D/5   |
| EH      | ELLIOTT HALL   | C/6   |         | ☐ Registrar   |       |         | <i>(Directly outside east door of Beech Wind Tunnel)</i>                              |       |
| FT      | FAIRMOUNT COMMONS  | A/1   |         | ☐ Financial Aid   |       | WH      | WALLACE HALL ☐  | D/5   |
|         | ☐ Housing and Residence Life   |       |         |   |       |         | <i>Wheelchair entry at north end.</i>   |       |
|         | ☐ Cafeteria  |       |         |   |       |         | ☐ College of Engineering  |       |
| FA      | FAIRMOUNT TOWERS 2221 N. Hillside  | A/1   | MC      | MCKINLEY HALL ☐   | B-C/5 | WR      | WAREHOUSE   | E/6   |
|         | <i>Wheelchair ramps exist but not at every entrance.</i>                           |       |         | <i>Wheelchair entry at north and south ends.</i>  |       | WC      | WEST CAMPUS (37th and Maize)  | E/6   |
| FH      | FIKSE HALL   | B/6   | MM      | MCKNIGHT ART CENTER ☐   | B/6   | WI      | WHEATSHOCKER APARTMENTS   | E/6   |
|         | <i>Wheelchair entry very difficult. No elevator.</i>                               |       |         | <i>Wheelchair entry for the south building, take sidewalk around the side closest to Wilner, and enter west door.</i> |       |         | WIDEMANN HALL   | B/4   |
| PC      | GADDIS PHYSICAL PLANT COMPLEX  | D-E/6 | MR      | MARCUS WELCOME CENTER   | F/3   |         | WILNER AUDITORIUM ☐   | B/6   |
| GE      | GEOLOGY BUILDING   | C-D/5 |         | ☐ Admissions (Undergraduate)  |       | WA      | SCHOOL OF PERFORMING ARTS   |       |
|         |  |       | ME      | MEDIA RESOURCES CENTER  | D/5   | WC      | WOODMAN ALUMNI CENTER   | F/3   |
|         |  |       |         |   |       |         | ☐ Alumni Association  |       |
|         |  |       |         |   |       |         | ☐ Board of Trustees   |       |
|         |  |       |         |   |       |         | ☐ WSU Foundation  |       |
|         |  |       | MR      | METROPOLITAN COMPLEX (25th AND OLIVER)  | B/6   |         |   |       |
|         |  |       |         | ☐ Conferences and Non-Credit Programs   |       |         |   |       |
|         |  |       |         | ☐ Small Business Development Center   |       |         |   |       |
|         |  |       |         | ☐ Speech-Language-Hearing Clinic  |       |         |   |       |
|         |  |       |         | ☐ Wichita Radio Reading Service   |       |         |   |       |

☐ Free campus phone on ground floor

The building abbreviations used here may not match those used in other publications.



(see inset)  
 • Eugene M. Hughes Metropolitan Complex  
 • Advanced Education in General Dentistry  
 are located at the SE corner of Oliver and 29th St.  
 (East from campus to Oliver, north to 29th).

**South Campus**  
 200 West Greenway St., Derby



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