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 widely 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 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, including transfer work, a grade point average of 2.00 in the major and minor fields of study, and a 2.00 WSU grade point average.

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 introductory section of this Catalog), and students must be enrolled in one of the University’s degree-granting colleges. Accumulative grade point average of 2.00 is required for both the degree and for WSU academic work.

Bachelor of Arts degrees are offered in anthropological, biological sciences, chemistry, communication, communicative disorders and sciences, computer science, economics, English, ethnic studies (suspended), geology, history, mathematics, modern and classical languages and literatures (French, Latin, and Spanish), philosophy, physics, political science, psychology, social work, sociology, and women’s studies.

The Bachelor of Science is available in biological sciences, chemistry, computer science, criminal justice, geology, mathematics, and physics.

The Bachelor of General Studies requires breadth in distribution of course work and allows for the development of areas of concentration which may be thematically or occupationally related. This degree is available through every college department.

Graduate

Graduate programs are offered through the Graduate School in many liberal arts and sciences areas. The Master of Arts (MA) may be earned in anthropology, communication (interdisciplinary), criminal justice, English, gerontology, history, psychology, social work, sociology, and Spanish. The Master of Science (MS) may be obtained in biological sciences, chemistry, computer science, environmental science (suspended), geology (suspended), mathematics, and physics (suspended).

The Master of Computer Science (MCS) is awarded in computer science; the Master of Fine Arts (MFA) in creative writing; the Master of Arts in Liberal Studies (MALS) in interdisciplinary studies; the Master of Public Administration (MPA) in public administration and the Master of Social work in social work.

The Doctor of Philosophy (PhD) degree is offered in chemistry, applied mathematics, and psychology—human factors and community clinical.

For more information, consult the Wichita State University Graduate Bulletin.

Policies

Admission

Students are admitted to Fairmount College of Liberal Arts and Sciences upon meeting the general admissions requirements for Wichita State University and declaring one of three categories:

1. Degree-bound. These students enter with the intention of pursuing one of the degree programs offered by Fairmount College.

2. Degree-bound as an exploratory student. These students have not yet decided on a major area of study when they enter WSU.

3. Non-degree-bound. These students enroll in classes or programs for purposes other than achieving a degree.

See University admissions details in the introductory section of this Catalog.

Probation and Dismissal Standards

1. Students are placed on probation whenever their cumulative and WSU grade point averages fall below 2.00.

2. Probation is removed when the cumulative and overall WSU grade point averages reach the required 2.00 level.

3. Students continue on probation when they earn a 2.00 or better semester average but their cumulative and overall WSU grade point averages remain below 2.00.

4. Students on probation will not be academically dismissed unless they have attempted at least 12 hours after being placed on probation, failed to earn at least a 2.00 semester average, and if their cumulative and overall WSU grade point averages remain below 2.00.

5. At that point, probationary students will be dismissed.

6. When dismissed, students may re-enroll only with the permission of the University’s Committee on Admissions and Exceptions.

Students who have been dismissed for academic reasons may seek readmission to the University by filing a petition—in writing—with Fairmount College’s Admissions and Exceptions Committee. Fairmount College requires petitioners to meet with an academic advisor to prepare a written petition. Cases for readmission must be developed by the student after consultation with an advisor. The petition is then considered by the Fairmount College committee and forwarded to the University’s committee for final action.

Because counseling and advanced planning require careful attention and much time, students must complete the petition at least ten days before the first day of enrollment in a semester.

Enrollment Limits

Students in good academic standing may enroll for a maximum of 19 hours during fall and spring semesters and a maximum of 12 hours during the summer session. Students wishing to enroll beyond these limits must request approval from an academic advisor in the LAS Advising Center.

Academic Advising

Academic advising is a sustained and comprehensive, developmental process which promotes progressive student responsibility, commitment to the pursuit of intellectual foundations, clarification of an appropriate major, disciplinary competence, academic success, and preparation for career advancement. Advising is coordinated through the LAS Advising Center for students who are degree bound, exploratory or non-degree bound.
Degree-Bound Students in Fairmount College Programs

Degree-bound students who have declared interest in any of Fairmount College’s programs receive advising from department faculty. Students with early and sustained involvement in their major departments develop methods of inquiry, peer and mentoring relationships, and intellectual and social perspectives which deepen and enrich their Fairmount College experience and support their achievement and persistence. Students with interdisciplinary or preprofessional interests also benefit from contact with faculty advisors qualified to discuss educational programs leading to the exercise of civic and social responsibility, to the enjoyment of intellectual pursuits, and to the realization of career fulfillment.

Degree-Bound Exploratory Students

LAS Advising Center (LASAC) advisors help degree-bound exploratory students remain flexible while pursuing general education requirements so that they may transfer to any college within WSU once a major is declared. Students develop educational planning skills, remove academic deficiencies, develop effective college-level study skills and habits, choose an academic major, develop personalized academic and career/life plans, and complete part of the general education requirements. Each degree-bound student is assigned an academic advisor. When a student declares a major field of study, an immediate transfer occurs to the college that sponsors that program. The LASAC staff offers students assistance in the exercise of civic and social responsibility, to the enjoyment of intellectual pursuits, and to the realization of career fulfillment.

Non-degree-Bound Students

LASAC advisors provide non-degree-bound students with services designed to be responsive to their unique needs and interests, responsibilities, and learning styles. These may involve self-enrichment, job advancement, career change, skills updating, or professional certification. The non-degree-bound category includes college and high school guest students and high school concurrent enrollment students. The LASAC will connect a non-degree-bound student with an appropriate academic advisor upon request. These students considering the possibility of transferring to degree programs at a later date should connect with specific college advising services as early as possible to assure the development of the best possible educational foundation.

The LASAC staff offers students assistance in becoming acquainted with department requirements, programs, and faculty, and assists with special advising needs and degree-completion procedures. In summary, they are a primary information resource for the University.

Application for Graduation

To insure a close identification of each student with his or her department, the faculty of the department of a student’s major or primary area of concentration provide academic advising. In addition to advising for preregistration and registration, the declared students’ departmental undergraduate advisors will fill out a graduation plan with each student who has completed 90 credit hours. Completion of this senior form provides guidance to the student in meeting graduation requirements.

Students planning to receive the Bachelor of General Studies degree will declare their intention at least 30 hours before the degree is granted. A plan of study including the area of concentration should be initiated as soon as possible—but no later than 30 hours before the degree is granted—with the Bachelor of General Studies advisor in the primary department of interest (see Area of Concentration in Section XII on page 148). This plan will be submitted along with other graduation application materials to the LAS Advising Center.

Applications for graduation and degree cards may be obtained from the LAS Advising Center.

Assessment of Academic Programs

Fairmount College participates in a University-wide program to assess the effectiveness of all curricula and instruction within the University. Individual departments within Fairmount College have established assessment strategies which are shared with their majors. In most cases, assessment activities involving students occur in the final semester of enrollment before the degree is granted.

Cross-Listed Courses

Selected courses in the University curriculum are cross-listed because course content is suitable to more than one academic area. Every department or program which offers cross-listed courses provides a separate catalog description. When enrolling in cross-listed courses, students—in consultation with their advisor—may select the listing under which they wish to receive credit, but credit may be earned under only one of the course listings.

Field Trips

Attendance on field trips is mandatory in any course that includes in its catalog description a statement that field trips are required or in which the instructor states that field trips are essential for earning credit. Absences are permitted only with the instructor’s approval. Students may have credit withheld for a course if they do not complete the required field trips.

Credit for Life Experience

Fairmount College offers credit for life experience when a student’s learning from life experiences duplicates the content of a course offered in the Catalog. The student meets with the faculty member authorized to teach that course to document the learning from that life experience. The faculty member certifies that the documentation supports the award of credit.

While some other universities fit college credit to the student’s experience, Fairmount College (the only college at Wichita State to award such credit) requires that the learning from life experience fit the approved curriculum of the college. We are conservative in protecting the autonomy of the faculty and the goals of the curriculum. In keeping with these objectives, the faculty assist students in demonstrating their mastery of the content of a class with means appropriate to the particular class.

Students who are authorized by faculty to develop a portfolio or other documentation to seek life experience credit must be admitted to Wichita State University and must pay a nonrefundable assessment fee to the Office of the Controller. Students will be advised of fees upon entering the program. The faculty member sends a memo authorizing the (ungraded) credit to the Fairmount College office. Credit is awarded and is noted on the student’s transcript.

Cooperative Education

Fairmount College participates in the Cooperative Education program which matches paid internships with undergraduate and graduate students who wish to combine their classroom studies with academically related employment. In LAS, a maximum of 12 hours of cooperative education credit may be applied to baccalaureate degree requirements.

Further information is available in the Cooperative Education office, 223 Grace Wilkie Hall, or the academic information section of the Catalog.

Certificate Programs

Certificate programs in Fairmount College are available to members of the community, to students who have already earned degrees, and to students pursuing degrees in Fairmount College or other degree-granting colleges. A certificate is awarded acknowledging a student’s completion of a disciplinary or interdisciplinary focus consisting of courses which provide thematic coherence in a unique area of applied or theoretical work. Specific requirements for the following certificate programs may be reviewed in the departmental sections that follow:

- Applied Communication (graduate and undergraduate)—Elliott School of Communication
- Information Technology—Computer Science
- Corrections; Cross-Cultural Communication;
- Forensic Criminology; Law Enforcement—School of Community Affairs
- Film Studies—English
- Great Plains Studies (graduate and undergraduate)—Interdisciplinary Liberal Arts and Sciences
- Public Finance (graduate—Hugo Wall School of Urban and Public Affairs
- Substance Abuse Counselor Certification—Psychology
- Women’s Studies—Women’s Studies
Academic Honesty and Code of Conduct
The faculty of Fairmount College strongly endorses the statement on academic honesty appearing in the general information section of this Catalog and the Code of Conduct and appeals procedure outlined in the Student Handbook.

Requirements for Graduation

Bachelor of Arts, Bachelor of Science, and Bachelor of General Studies

The following 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. The requirements for the BA, BS, and BGS fulfill all University graduation requirements except the following:

1. Basic skills—The following courses must be completed in the first 48 Fairmount College hours with a grade of C or above.
   - ENGL 100 or 101 and 102, English Composition
   - COMM 111, Public Speaking
   - MATH 111, College Algebra, or MATH 131, Contemporary Math or higher-level math class
2. Upper-Division—at least 45 semester hours of credit in courses numbered 300 or above.
3. Residence—at least 30 semester hours of course credit at Wichita State. At least 24 of the last 30 semester hours or 50 of the last 60 semester hours must be completed at Wichita State.
4. Four-year institution—a minimum of 60 credit hours must be completed in a four-year degree-granting college or university.
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 before enrollment outlines specific courses approved in each of the following categories:

1. Fine Arts and Humanities*. Candidates for the BA, BS, and BGS degrees must take 12 hours of courses with the following distribution: 1) one introductory course from a fine arts discipline listed below; 2) one introductory course from two different humanities disciplines listed below; plus 3) a further study course from the same discipline as one of the introductory courses or an Issues and Perspectives course in fine arts or humanities. BA and BGS candidates may take an additional 3 hours to complete the total of 27 required in humanities/fine arts and social sciences. This extra course may be from the major department.
2. Fine Arts: art history, dance (history), musicology—composition, theater, other approved discipline for an Issues and Perspectives class.
3. Humanities: communication (non-basic skills), English (non-basic skills), history, linguistics, modern and classical languages and literature, philosophy, religion, women’s studies, other approved discipline for an Issues and Perspectives class.
4. 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.
5. American Political System. All BA, BS, and BGS candidates must demonstrate proficiency in the field of the American political system and institutions by passing either HIST 131 or 132 (humanities) or POL S 121 (social sciences) or by passing an examination offered each semester by the history and political science departments. Inclusion of one of these three courses should be considered in general education course planning.
6. Social and Behavioral Sciences*. Candidates for the BA and BGS degrees must take 12 to 15 hours in three different departments with the following distribution: 1) one introductory course from two different social and behavioral science disciplines listed below; plus 2) a further study course from the same discipline as one of the introductory courses or an Issues and Perspectives course in the social and behavioral sciences; 3) one or two additional courses may come from the student’s major or from any other elective courses within social science departments of the college.
7. 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: gerontology.

A total of 27 hours must be taken in the fine arts/humanities and social and behavioral sciences disciplines by candidates for the BA and BGS degrees.

V. Natural Sciences and Mathematics. Candidates for the BA, BS, and BGS degrees who have completed at least two years of high school laboratory science courses (exclusive of general and physical science) must take a minimum of 9 hours of courses with the following distribution: 1) one introductory course from two different natural science disciplines listed below (one of which must be a biological science and the other a physical science); plus 2) a further study course from the same discipline as one of the introductory courses or an Issues and Perspectives course in natural sciences. One of the above courses must include a laboratory experience.

Candidates for the BA, BS, and BGS degrees who have not completed at least two years of high school laboratory science must take 12 hours following the minimum distribution given above. Should a fourth course be necessary to complete the 12 hours, this class may come from any of the elective disciplines indicated below.

Natural Sciences and Mathematics
- biology, chemistry, geology, physics, other approved discipline for an Issues and Perspectives class.

Other Natural Sciences and Mathematics for elective use: ANTH 101 and 106 (counts as biology); GEOG 201 and 235 (count as physical science).

VI. Students must complete at least one and not more than two Issues and Perspectives courses to fulfill University general education program requirements. In addition, courses within the student’s major discipline do not count toward University general education program requirements.

VII. Foreign Languages. Candidates for any BA degree and for the BS degree in criminal justice must demonstrate proficiency at a level equivalent to 5 hours beyond the 112 course in one foreign language or equivalent to the completion of the 112 course in two foreign languages. This proficiency may be demonstrated in the following ways:

1. Students may successfully complete 111 and 112, plus 5 additional hours in one foreign language, or 111 and 112 in two foreign languages.
2. Other foreign language experience, or high school foreign language study at the rate of one high school unit for each college semester, may apply toward the required proficiency.

3. Students who have completed three or more years of one language in high school may fulfill the foreign language requirement by successfully completing a 3-hour intermediate-level class in the same language.

4. Students with English as their second language have met the college’s foreign language requirement for a baccalaureate degree.

Language 210 classes, although approved to count towards humanities requirements in the University general education program, will not fulfill a humanities course requirement for 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 departments. While the department controls its own requirements for the major, the following expectations apply to all majors:

1. A2.000 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. Courses with a “G” suffix may not be used as hours in the major or in the primary department of a BGS area of concentration unless approved by the department.
4. 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.
5. 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.
6. The same hours cannot be used to satisfy requirements for two or more majors or minors or combination thereof.

IX. Combined Major. A BA degree with a combined major, consisting of 24 hours from one field of study and 12 hours from an allied field of study, may be designed with the assistance of the primary department’s academic advisor. A minimum of 12 upper-division hours must be included in the combined major.

X. Field Major. Students may select a major that correlates three or more fields of study to receive a broad appreciation of the cultural and dynamic factors of human conduct. The selection of courses must be made with an advisor from the primary department of interest and with the dean’s office approval. Although such a major cuts across departmental lines and is determined by the field of specific interest, the combination of courses must be acceptable to the college. Normally 36 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 advisor in developing an appropriate field major or may use one of the predesignated field majors indicated below. Students must meet BA graduation requirements for all field majors except biochemistry and chemistry/business which lead to the BS degree.

Biochemistry. Biochemistry is a rapidly growing science in which many important advances have been made in the last two decades. It requires both an understanding of biological processes and a knowledge of sophisticated techniques of chemistry and physics. The field major in biochemistry is designed to prepare students for employment or further study in this area.

Students choosing this field major should seek the advice of an advisor in the Department of Biological Sciences or the Department of Chemistry as early as possible. Both the biological sciences and chemistry sections of the Catalog provide complete descriptions of this major.

Chemistry/Business. See the chemistry section of the Catalog for complete description.

Classical Studies. Classical studies is an interdisciplinary program designed to give students a sense of continuity and to interpret the values, ideas, and ideals of antiquity as shown in its history, art, mythology, literature, political institutions, and religions. The major also serves as a sound preparation for areas in which sensitivity to language and ideas is an important tool—classics, linguistics, ancient history, art history, archaeology, comparative literature, law, religion, and Near Eastern studies.

The major consists of 36 hours which must be selected from a list of approved courses, except that courses of independent study in one of the departments of the field major may count toward the major if the subject matter is at least half classical. For further information and a list of approved courses, contact the Department of Modern and Classical Languages and Literatures.

International Studies. The program for the international studies field major is flexible and is designed to meet the need for specialists in foreign areas, international government or international economics, government, business, and international organizations. Students are prepared for careers in international organizations in the U.S. government and in business firms with international activities.

Two options are available: Option A in area studies; Option B is a combination of area studies and international business. No minor is required for either option. Students interested in these areas should contact the international studies advisor in the history department.

XI. Minor. Minors are offered all fields of study in which a major may be earned as well as in ethnic studies, geography, German, gerontology, linguistics and religion. The number of hours required for a minor is set by each department. A2.000 minimum grade point average is required in the minor. Minors from other colleges are acceptable and must meet minimum requirements of those colleges.

XII. BGS: Area of Concentration. The Bachelor of General Studies degree allows students to design their own programs of study crossing departmental or even college lines. The BGS degree allows the student to become a generalist and may allow preprofessional or nontraditional career students greater flexibility in planning for their unique future.

With the assistance of the BGS advisor in the department of primary interest, each student pursuing a BGS degree will develop a plan of study which outlines an area of concentration incorporating a minimum of 33 hours. No fewer than 15 and no more than 21 of these hours will be taken in a “focal” or primary department. The remaining 12 to 18 hours must be divided between at least two other departments. Concentrations may cross departmental or college lines in that they may be thematically or occupationally related, but the first two departments of the area of concentration must be LAS.

No general studies courses (courses with a “G” suffix) will count toward the “primary” portion of the concentration but will be allowed in the additional portions. A minimum of 12 upper-division hours must be included in the concentration.

BGS students are given an opportunity to summarize their academic and intellectual goals in an assessment essay.

Distribution requirements limit course work to no more than 30 hours from one department, to no more than 60 hours in one division, and to no more than 30 out-of-college hours.

XIII. Non-liberal Arts and Sciences Courses. Students may count only 24 hours of non-liberal arts and sciences courses toward either the BA or BS degree. Thirty hours of non-liberal arts and sciences courses may count toward the BGS degree. Any non-liberal arts and sciences courses required by a major within Fairmount College will apply to LAS hours required for the degree.

Communicative Disorders and Sciences

Students desiring an emphasis in applied language study should see requirements and curriculum for a major in communicative disorders and sciences through Fairmount College listed in the College of Education section of the Catalog.

Special Preprofessional Programs

Advisors in the various preprofessional fields and closely related departments provide specific information regarding courses and requirements.

Pre-law

The Association of American Law Schools states that students interested in pursuing a law degree should get a broad undergraduate education that provides “comprehension and expression in words, critical understanding of the human institutions and values with which the law deals, and creative power in thinking." These qualities are to be achieved through disciplined study in fields of the student’s choice. Requirements for the bachelor’s degree provide students with both a general education and a concentration in a major field of study.

Law school admission requires completion of a bachelor’s degree. Many majors provide appropriate foundation for the study of law, and college advisors offer pre-law students assistance in contacting departments for academic advising.
Premedical Professions—Medicine, Dentistry, Optometry, Pharmacy, Veterinary Medicine, Podiatry, Chiropractic

Medical programs encourage students to obtain a broad education in addition to the prerequisite studies in the sciences. Preparation for a professional program should include courses that develop disciplined thinking, intelligent appreciation of values, and sympathetic understanding of society and human interaction. Students may choose to major in any field of interest in preparation for medical studies. The primary core of prerequisite courses necessary for admission to most professional schools includes one year each of English composition, math, biology, inorganic chemistry, organic chemistry, and physics.

Completion of a bachelor’s degree is a general admissions requirement for the majority of medical schools. Some professional programs grant admission on the basis of a three-year preparatory program. Wichita State students on the three-year program may be granted the bachelor’s degree if they have taken 94 credit hours (the last 30 must be at WSU) within the required fields of study and have completed general education requirements for the degree; earned 188 credit points with no more than 20 hours of D grade work; passed the first year of a medical profession program and qualified for admission to the second year. Candidates must apply for the degree through the LAS Advising Center.

Academic advising for premedical professions students is coordinated through the LAS Advising Center.

Preparation for Secondary Education

Students planning to teach in high school may pursue a Fairmount College degree program while preparing to meet State Board of Education requirements for secondary education licensure. Programs for secondary education are outlined in the College of Education section of the Catalog. Liberal arts and sciences majors form the base for many certified teaching fields, while the College of Education provides all professional education course work required for licensure. For further details and information, contact a major department advisor in Fairmount College or a teaching field advisor in the College of Education.

Anthropology (ANTHR)

Anthropology offers perspectives on issues of the origins, history, and diversity of the dynamics of culture and behavior, people, and places, personal and community identity, origins, and the biological history of humankind in all of its manifestations in all times. Anthropology is holistic and explores psychological, biological, social, and cultural—including technological, economic, religious, political, and artistic aspects of human action.

Anthropologists examine the vast diversity of human cultures, striving to understand and appreciate the myriad ways of life that constitute alternative solutions to the universal problems of human existence. By combining the perspective of science and the humanities, archaeologist, socio-cultural, linguistic, and bio-

logical 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 course work provides students with opportunities to learn about, appreciate, and understand the values and perspectives of people from cultural traditions other than their own and also addresses their ability to interact cross-culturally.

The program offers a Bachelor of Art (BA) degree major, an interdisciplinary field major, and a minor in anthropology. ABA in anthropology prepares students for a variety of professional careers in and outside anthropology. The minor effectively complements a diverse number of majors within Fairmount College and across colleges. Elective and general education courses in anthropology seek to broaden the student’s Fairmount College experience by offering them an opportunity to appreciate the strength of human cultural and biological history and diversity through socio-cultural, bio-cultural, and cultural-historical perspectives to understanding the living world in the framework of its past and present circumstance.

Major. A major in anthropology consists of at least 30 semester hours, 9 semester hours of which must include ANTHR 101, Biological Anthropology; ANTHR 102, Cultural Anthropology; and ANTHR 103, Introduction to Archaeology. Students must also take an additional three courses (9 semester hours) including one upper-level biological anthropology course (chosen from ANTHR 306, 355, 557, 597R, and 600), one upper-level cultural anthropology course (chosen from ANTHR 303, 307, 312, 318, 327, 344, 361, 388, 506, 511, 515, 516, 522, 526, 528, 540, and 542), and one upper-level archaeology course (chosen from ANTHR 305, 313, 335, 508, 538, 611, 612, and 613). All majors must take a course in method and theory (ANTHR 647). An additional 9 semester hours of electives can be distributed across catalog listings for anthropology to match the student’s interest in a particular sub-discipline(s).

A maximum of 6 semester hours of certain course work in related departments can be counted toward an anthropology major if they meet discipline-specific requirements and if approved by a committee of the anthropology department faculty.

Minor. A minor in anthropology consists of 15 semester hours in anthropology (including at least 6 hours of upper-division work) chosen in consultation with the student’s anthropology advisor. Students minoring in anthropology are encouraged to take ANTHR 101, 102, and 103.

Field Major. A field major in anthropology allows undergraduate students to combine studies from three separate departments. The anthropology field major consists of 18 credit hours in anthropology, including ANTHR 101, 102, 103, and at least 9 semester hours of upper-division course work. To complete the field major, students must take 9 semester hours of related course work in two departments other than anthropology. All anthropology and non-anthropology courses must be chosen in consultation with the student’s anthropology advisor.

Lower-Division Courses

ANTHR 100. Anthro Nov. (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.

ANTHR 101. Biological Anthropology (3). General education introductory course. Provides an introduction to the understanding of biological evolution and behavioral development of humans. Introduces the history and basic concepts of biological/evolutionary thought; genetics and cell biology; human origins, ecology, and culture, along with the types of data and modes of analysis currently used in biological anthropology. Formulates explanations of physical and cultural developments of human and non-human primates in the last 70 million years. Explores patterns of human variation in biological and behavioral traits among present-day populations and discusses current issues (e.g., the social and biological meaning of variations).

ANTHR 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.

ANTHR 103. Introduction to Archaeology (3). General education introductory course. Introduces the philosophy, theory, tools, and techniques of the practicing archaeologist. Illustrates the role or archaeology in understanding cultural change through time, and explains how archaeological method draws on natural science and humanities to demonstrate how we learn about past cultures from the material they left behind.

ANTHR 106. Biological Anthropology Laboratory (1). Students collect and analyze data while learning to apply current techniques to the study of human and/or non-human primate skeletal, dental, and biological specimens. Prerequisite or co-requisite: ANTHR 101.

ANTHR 107. Cultural Anthropology Laboratory (1). Students participate in organizing, collecting, and analyzing data derived from cultural anthropological investigations. Prerequisite or co-requisite: ANTHR 102.

ANTHR 150. Workshop in Anthropology (1-3). Provides specialized instruction using a variable format in an anthropologically relevant subject. Repeatable for credit.

ANTHR 165. The Blues: Art and Culture (3). Cross-listed as MUS 165. The blues is a uniquely American musical form that has made an immense contribution to world popular culture. The history of the blues is also the history of Black America from the late 19th century to the present day. Focuses on major blues artists, both rural and urban, to trace the history
and development of the blues as a folk art form that expresses both the joy and the despair of the people who created it.

ANTHR 200. Intercultural Relations (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

ANTHR 303. World Cultures (3). General education further study course. Comparative case studies of the cultures of existing societies of varying types, non-literate peoples, Third World nations, and modern industrialized countries.

ANTHR 305. World Archaeology (3). General education further study course. Introduces the basic concepts, methods, techniques, and modes of analysis of scientific archaeology. These are applied to a series of problems of increasing complexity: the emergence of human culture, the development of domestic plants and animals, and the evolution of cities and complex societies.

ANTHR 307. Peoples of Africa (3). General education further study course. Describes and analyzes the culture areas of Africa south of the Sahara Desert from ethnologic and ethnocultural sources.

ANTHR 312. Asia Pacific Cultures (3). General education further study course. Studies the cultures and nations in eastern Asia bordering the Pacific Ocean, focusing on historical background, cultural beliefs and practices, and the distinctive patterns of each.

ANTHR 313. Archaeology of East Asia (3). General education further study course. A broad survey of archaeology throughout eastern Asia from the early hominid fossils at Peking and Java to the development of Chinese and Southeast Asian civilizations. Emphasizes China (through the Han Dynasty), southeast Asia, and Australia/New Guinea. Includes recent archaeological finds of the Peoples Republic of China.

ANTHR 318. Psychological Anthropology (3). General education further study course. The relationship of individual psychology (personality, emotion, cognition), both normal and abnormal, to group membership and cultural context.

ANTHR 327. Magic, Witchcraft, and Religion (3). General education further study course. Cross-listed as REL 327. An examination of various concepts concerning the realm of the supernatural as held by various peoples around the world. Relates such religious beliefs and the resultant practices to the larger patterns of cultural beliefs and behaviors.

ANTHR 335. Archaeology of North America (3). General education further study course. An survey of the prehistoric cultures of North America north of Mexico from the earliest peopling of the continent to the time of European colonization.

ANTHR 344. Ecological Anthropology (3). General education further study course. Investigates the relationships of people both to their physical and sociocultural environments, including the effects of these relationships on economic activities, social organizations, and beliefs and behaviors emphasizing the evolutionary development of survival strategies.

ANTHR 347. History of Anthropology (3). An overview of the history of anthropology from the enlightenment through the middle of the 20th century. Emphasizes seminal events, theory, and contributions that shape the modern discipline of anthropology. Prerequisite: ANTHR 100 or 101 or 102 or 104.

ANTHR 350. Workshop in Anthropology (3). Focuses on anthropological topics. Repeatable for credit.

ANTHR 351. Linguistics and Foreign Languages (3). Cross-listed as MCLL 351 and LING 351. Introduces general linguistic principles as they apply specifically to the study, acquisition, and analysis of foreign languages offered as major concentrations at WSU (French, German, Latin, and Spanish). Introduces acoustic phonetics (narrow transcription of foreign languages) and principles of phonology; morphology and principles of morphology; and syntax and semantics. Prerequisite: LING 151.

ANTHR 356. Human Variability and Adaptation (3). General education further study course. Anctrical examination of the biological aspects of contemporary human variation, stressing human adaptations. Prerequisite: ANTHR 101 or BIOL 210 or equivalent.

ANTHR 361. Law, Politics, and Society (3). General education further study course. Studies legal and political systems in non-Western societies. Includes the origin of the state, precolonial law and politics, the impact of colonialism, and problems in state building.

ANTHR 388. Cognitive Anthropology (3). General education further study course. Concentrates on a 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.

ANTHR 397. Topics in Anthropology (3). Studies current issues in anthropology. Content varies with interests of instructor. Consult current Schedule of Courses for topics.

ANTHR 398. Travel Seminar (1-4). An interdisciplinary travel seminar that allows a student to gain credit for the study of one of the following: culture, art, literature, architecture, politics, society, science, and economics while visiting historic places of interest. Utilizes the archaeological, biological, linguistic, and sociocultural perspectives to better understand overseas cultures. Prerequisite: departmental consent.

ANTHR 481. Cooperative Education in Anthropology (1-4). See ANTHR 281.

ANTHR 498. Readings in Anthropology (2-3). Repeatable up to 6 hours. Special problems in anthropology. Prerequisite: 12 hours of anthropology.

Courses for Graduate/Undergraduate Credit

ANTHR 502. Introduction to Archaeological Laboratory Techniques (1-3). Maximum of 3 hours. An introduction to the laboratory processing of archaeological materials. Direct experience in all phases of preparing excavated materials for analysis, including cleaning, restoring, preserving, numbering, and cataloging of ceramic and lithic artifacts and other remains. Prerequisite: ANTHR 305.

ANTHR 506. Peoples of the Pacific (3). General education further study course. An overview of the cultures and societies of Polynesia, Micronesia, and Indonesia.

ANTHR 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.

ANTHR 511. The Indians of North America (3). General education further study course. A survey of tribal societies and native federations north of Mexico from the prehistoric to the historic period. Prerequisite: ANTHR 102.

ANTHR 514. Anthropology of Aging (3). General education further study course. Cross-listed as GERON 514. An anthropological analysis of the latter stages of the life cycle with historical and cross-cultural perspectives.

ANTHR 515. China (3). General education further study course. An introduction to the people of China and aspects of their culture: economy, government, society, religion, and the arts. Historical attention on the many adjustments the Chinese made during the 20th century following political revolutions, industrialization, and expanding trade relations.

ANTHR 516. Japan: People and Culture (3). General education further study course. An introduction to the culture of Japan including its history and prehistory, aspects of traditional culture and 20th century Japan, its economy, politics, and social organization.

ANTHR 519. Applying Anthropology (3). General education further study course. The application of anthropological knowledge in the solution of social problems in industry, public health, and public administration. Prerequisite: ANTHR 102.

ANTHR 522. Art and Culture (3). General education further study course. A survey of the visual and performing arts of non-western peoples with special attention to their relationships in the cultural setting. Prerequisite: ANTHR 102.

throughout the world. Deals with family systems; kinship; residence patterns; and lineage, clan, and tribal organizations. Prerequisite: 6 hours of anthropology.

ANTHR 528. Medical Anthropology (3). General education further study course. Studies the health and behaviors of various human societies, especially in, but not limited to, those outside the western, scientific tradition. Covers attitudes toward the etiology of disease, the techniques of healing, the use of curative drugs and other agents, the roles of healers and therapists, and the attitudes of the community toward the ill. A library or field research project is required. Prerequisite: 3 hours of nursing or 3 hours of anthropology or instructor’s consent.

ANTHR 538. Early Man in the New World (3). A critical examination of facts and theories concerning early man in the New World from the peopling of the continent to the beginning of the Archaic Tradition, and of the role of cultural contacts between eastern Asia and North America. Prerequisite: ANTHR 305.

ANTHR 540. The Indians of the United States: Conquest and Survival (3). An anthropological inquiry into four centuries of cultural contact, conflict, resistance, and inaccess. Prerequisite: ANTHR 102 or instructor’s consent.

ANTHR 542. Women in Other Cultures (3). General education further study course. Cross-listed as WOM S 542. Deals with the place of women in primitive and other non-Western societies, in various aspects of culture: political, economic, social, religious, domestic, intellectual, psychological, and aesthetic. Compares and contrasts societies in order to see how different kinds of roles for women are related to different kinds of societies.

ANTHR 555. Paleoanthropology and Human Paleontology (3). A detailed examination of human evolutionary history as evidenced by fossil remains and a survey of various interpretive explanations of the fossil record. Prerequisite: ANTHR 101 or BIOL 203 or equivalent.

ANTHR 557. Human Osteology (3). Deals with human skeletal and dental materials with applications to both physical anthropology and archaeology. Lecture and extensive laboratory sessions; includes bone and tooth identifications, measurement and analysis, and skeletal preservation and reconstruction. Individual projects are undertaken. Prerequisite: ANTHR 101 or equivalent.

ANTHR 597. Topics in Anthropology (3). Detailed study of topics in anthropology. Content varies with interest of instructor. Consult Schedule of Courses for current topic.

ANTHR 600. Forensic Anthropology (3). Cross-listed as C J 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: ANTHR 101 or equivalent.

ANTHR 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: ANTHR 502 and instructor’s consent.

ANTHR 606. Museum Methods (3). An introduction to museum techniques relating to the acquisition of collections and related procedures, such as accessioning, cataloging, documentation, presentation, and storage. Emphasizes current trends in museological philosophy concerning purpose, function, and relevance of museums, as well as career opportunities. Prerequisite: instructor’s consent.

ANTHR 607. Museum Exhibition (3). Contemporary philosophy of exhibition design and the application of recent concepts to the planning and installation of an exhibit. Prerequisite: ANTHR 606 or instructor’s consent.

ANTHR 609. Biological Anthropology Laboratory Analysis (1-3). Analyses biological anthropology materials including human and non-human skeletal material of both forensic contemporary or prehistoric origin according to standardized methods for recording and collecting data in biological anthropology. Learn methods of identification, analysis, and interpretation and prepare a standard technical report. Prerequisites: Anthropology 101, 106, 356, or 557.

ANTHR 611. Southwestern Archaeology (3). General education further study course. A comprehensive survey of the prehistoric, historic, and living cultures of the American Southwest particularly emphasizing the cultural continuities and changes covering 11,000 years. Prerequisite: one introductory course in anthropology or departmental consent.

ANTHR 612. Indians of the Great Plains (3). An investigation of the cultural dynamics of the Great Plains area from the protohistoric period to the present. Prerequisites: 6 hours of anthropology and departmental consent.

ANTHR 613. Archaeology of the Great Plains (3). General education further study course. The archaeology of the Great Plains area from earliest evidence to the historic period. Prerequisite: one introductory course in anthropology or departmental consent.

ANTHR 647. Theories of Culture (3). A survey of the main theoretical movements in cultural anthropology, including both historical and contemporary schools of thought. Prerequisite: 6 hours of anthropology.

ANTHR 651. Language and Culture (3). Cross-listed as LING 651 and MCLL 651. An introduction to the major themes in the interactions of language and society and language and culture, including ethnohistory of communication, linguistic relativity, and determinism; types of language contact; the linguistic repertoire; and cross-cultural discourse analysis. Content may vary with instructor. Prerequisite: 3 hours of linguistics or MCLL 351 or 6 hours of anthropology.

ANTHR 667. English Syntax (3). Cross-listed as ENGL 667 and LING 667. Examination of aspects of the structure of English and their relation to linguistic theory. Prerequisite: ENGL 315 or LING 577 or ANTHR 577 or instructor’s consent.

ANTHR 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 ethnohistoric field methods through actual participation in a field research program. The project depends upon the specific Summer Session and varies from year to year. Prerequisite: instructor’s consent.

ANTHR 736. Advanced Studies in Archaeology and Ethnohistory (3). Special area and theory problems in a historical approach to culture. Prerequisites: graduate standing and 6 hours of anthropology.

ANTHR 746. Advanced Studies in Cultural Anthropology (3). Entails an in-depth covered of selected topics in cultural anthropology, including social structure, economic and political organization, religion, personality, arts and knowledge systems, and current research methods. Prerequisites: graduate standing and 6 hours of anthropology.

ANTHR 750. Workshop (1-4). Short-term courses focusing on anthropological problems. Prerequisite: instructor’s consent.

ANTHR 756. Advanced Studies in Biological Anthropology (3). In-depth covered of selected topics in biological anthropology, including the history of evolutionary thought, human variation, growth and development, population dynamics, paleoanthropology, and primatology. Focuses on current issues, method, and theory in biological anthropology. Prerequisites: graduate standing and 6 hours of anthropology (must include ANTHR 101 or instructor’s consent).

ANTHR 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 six hours. Prerequisites: Full graduate standing, completion of one core course (ANTH 736, ANTH 746, or ANTH 756), and department consent.

ANTHR 781. Cooperative Education (1-4). Provides practical experience that complements the student’s academic program. Requires consultation with and approval by an appropriate faculty sponsor. Offered Cr/NC only. Prerequisite: graduate status.

ANTHR 798. Introduction to Research (3). Research methodology in Anthropology, including bibliography, method design, and the philosophy of research. Prerequisites: Full graduate standing and completion of at least one of the following core courses: ANTHR 736, ANTH 746, or ANTH 756.
Courses for Graduate Students Only

ANTHR 801. Seminar in Archaeology (3). Comprehensive analysis of archaeological data emphasizing theoretical problems of interpretation and reconstruction. Repeatable up to 6 hours. Prerequisite: ANTHR 501 or departmental consent.

ANTHR 802. Methods in Anthropology (2-3). Develops abilities in the conception and investigation of anthropological problems and interview and observation techniques, as well as more specialized methods such as photography, mapping, and tape recording. Repeatable up to 6 hours. Prerequisite: departmental consent.

ANTHR 820. Seminar in Biological Anthropology (3). Analysis and discussion of ancient fossil, prehistoric, historic, and recent/modern biological variation in an anthropological perspective. Can include advanced studies of human variation and skeletal biology, demography and population genetics in anthropology, advanced studies in paleoanthropology and issues in the debate over micro and macro levels of evolution, and quantitative applications to the study of human variation in anthropological contexts. Repeatable up to 6 hours. Prerequisite: departmental consent.

ANTHR 837. Seminar in Cultural Anthropology (3). Intensive study of advanced theoretical questions in cultural anthropology. Repeatable up to 6 hours. Prerequisite: 5 hours of anthropology.

ANTHR 847. Colloquium in Anthropology (1-2). SFU grade only. Repeatable for a maximum of 3 hours. Seminar-style experience in recent research in all of the subfields of anthropology. Allows those students preparing their first papers for presentation at professional conferences to present them before a critical but friendly audience. Students presenting colloquium papers receive 2 credits. Prerequisite: graduate standing in anthropology.

ANTHR 848. Recent Developments in Anthropology (3). A review of the latest discoveries and interpretations in the science of human beings. Repeatable up to 6 hours. Prerequisite: 5 hours of anthropology.

ANTHR 870. Independent Reading (2-3). Repeatable up to 6 hours. Prerequisite: departmental consent.

ANTHR 871-872. Internship in Anthropology (2-2). Students following applied or multidisciplinary tracks, such as museology, international business education, or health professions receive professional work experience in their field through an internship at a designated work place approved by departmental committee. Course need not require a tangible end product (e.g., paper). May be repeated, but limited to a total of 4 credit hours. Prerequisite: committee consent.

ANTHR 873-874. Advanced Project in Anthropology (2-2). In consultation with their major advisor and committee, students design a project (e.g., a museum exhibit, a written plan for an international business venture, a lesson plan for an anthropology unit in schools) that applies anthropological method and theory to the specific needs of an institution, group, or population. Requires a tangible end product (e.g., paper, thesaurus, and/or visual production or exhibit). May be repeated, but limited to a total of 4 credit hours. Prerequisite: committee consent.

ANTHR 875-876. Thesis (2-2).

Biological Sciences (BIOL)

The Department of Biological Sciences offers a broad and flexible curriculum leading to the Bachelor of Arts (BA), the Bachelor of Science (BS), the field major in biochemistry (BS), and the bachelor degree programs (BA and BS) to teach in secondary education. Students interested in an interdisciplinary program with a biological focus are encouraged to consider the Fairmount College field major (BA) or the Bachelor of General Studies (BGS) programs. All students who intend to pursue one of the programs within the Department of Biological Sciences should contact the department as early in their educational careers as possible for assignment to a faculty academic advisor. Candidates for all degrees are required to take the Field Achievement Test in Biology during the senior year and contribute examples of their course work to the department's assessment program. All candidates must maintain a grade point average of 2.0 in all biological sciences coursework.

Major in Biological Sciences with Biological/Biomedical Emphasis. A major in biological sciences leading to the BA with a biological/biomedical emphasis requires a minimum of 30 semester hours of biological sciences course work; up to 40 semester hours may be taken for credit. A major in biological sciences leading to the BS with a biological/biomedical emphasis requires a minimum of 40 semester hours of biological sciences course work; up to 50 semester 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 202, 503, 523, 532, or 532. Candidates for either degree must also complete CHEM 111, 112, 531, and 532. Candidates for the BS degree must also complete PHYS 213 and 214.

Major in Biological Sciences with Ecological/Environmental/Organisinal Emphasis. A major in biological sciences leading to the BA with an ecological/environmental/organisinal emphasis requires 35 semester hours of biological sciences course work. A major in biological sciences leading to the BS with an ecological/environmental/organisinal emphasis requires 40 semester hours of biological sciences course work. 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 202, 503, 523, 532, or 532. Candidates for the BS degree must also complete PHYS 213 and 214.

Field Major (BA) or Bachelor of General Studies (BGS). Students interested in such interdisciplinary programs should consult with a departmental advisor early to design a curriculum with a focus in biological sciences that will satisfy Fairmount College requirements for these degrees.

Non-major Courses. The Department of Biological Sciences offers courses designed primarily to meet the needs of students in other departments. These are listed below as “Non-major Courses.” These courses, or their equivalents at other institutions, cannot be used to satisfy the biological sciences course work requirements for the major or the minor.

Non-major Courses

(May not be used to satisfy the requirements for the major)

Lower-Division Courses

BIOL 103. Microbes and You (3). General education introductory course. Surveys general information about microbial physiology, biochemistry, and ecology that support more detailed discussion of interesting topics in food, medical, and environmental microbiology. Includes subjects of general interest and current newsworthy topics. Credit will not be given if the student has completed any biology course beyond the 100-level prior to enrollment. Suitable for general education requirements, but cannot be used for credit toward the major or minor in biological sciences.
>BIOL 106. The Human Organism (3). General education introductory course. Introduces the non-science major to certain biological principles as they relate to the human organism, provides biological information and understanding of subjects which are relevant to the student’s own well-being and role as a world citizen, and increases awareness of the human place in the biosphere. Concurrent or subsequent enrollment in BIOL 107 is recommended for students needing general education credit for a natural science laboratory experience. Credit for this course may not be applied toward the requirements for a major or minor in biological sciences. Only one of the following may be taken for credit: BIOL 104, 105G, 106 and/or 107. Students wishing to repeat BIOL105G (no longer offered) should enroll in BIOL106 and 107.

>BIOL 107. The Human Organism Laboratory (1). 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 the students and their role in the biosphere. Includes cell structure, human organ systems, the role of microorganisms in our environment, nutrition, metabolism, genetics, and ecology. Requires no animal dissection. Credit for this course may not be applied toward the requirements for a major or minor in biological sciences. Only one of the following may be taken for credit: BIOL 104, 105G, 106 and/or 107. Students wishing to repeat BIOL105G (no longer offered) should enroll in BIOL106 and 107.

BIOL 140. Topics in Biological Science (2-4). Selected offerings in the biological sciences for the non-science major. Consult Schedule of Courses for current offering. Credit for this course may not be applied toward the requirements for a major or minor in biological sciences.

BIOL 220. Introduction to Microbiology (4). 3R; 2L. For students in allied health fields. Introduces eucaryotic and procaryotic microorganisms and viruses and develops an understanding of microbial growth, including the use of antiseptics, disinfectants, and antibiotics; DNA as the genetic material; and the control of human reproduction. Preerequisite: any one of the following: BIOL104, 105G (no longer offered), 106, 203, or 223.

>BIOL 310. Human Reproduction: Issues and Perspectives (3). General education issues and perspectives course. Presents 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: BIOL104, 105G (no longer offered), 106, 203, 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 509. Foundations of Human Heredity (3). General education further study course. Introduction to the mechanisms and societal significances of developmental, transmission, and population genetics of humans. Attention to inborn errors of metabolism and development and the roles of genetic counseling and genetic engineering in their management. For students majoring outside of the natural sciences. Does not carry credit toward a biological sciences major or minor. Students earning graduate credit produce a term paper based on the technical literature on a topic chosen in consultation with the instructor. Prerequisite: junior standing.

BIOL 518. Biology of Aging (3). Cross-listed as GERON 518. An introduction to the phenomenon of aging, including a survey of age-related processes and mechanisms of senescence emphasizing humans. Students earning graduate credit produce a term paper based on the technical literature on a topic chosen in consultation with the instructor. Prerequisite: a basic course in biological sciences that satisfies general education requirements.

Major Courses

(Used to satisfy the requirements for the major)

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 BIOL204 may enroll in this course, subject to the credit limitations indicated above. Co-requisite: CHEM 111 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, 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 BIOL203Q (no longer offered) and BIOL 211. Students wishing to repeat BIOL 210 may enroll in this course, subject to the credit limitations indicated above. Co-requisite: BIOL 210. Concurrent enrollment in CHEM 112 is recommended.

Upper-Division Courses

BIOL 305. Introductory Plant Physiology (5). Introduces the physiological mechanisms which control higher plant functions. Includes a review of basic physiological principles; gas exchange; water absorption, transport and loss; organic nutrition and the process of photosynthesis and respiration, including variant mechanisms in plants adapted for particular environments; transport of organic nutrients; mineral assimilation and nutrition; and factors affecting the survival of higher plants. Emphasizing structure as it relates to function and the physical/chemical mechanisms involved in maintenance physiology. The laboratory emphasizes experimental techniques and approaches to investigations of plant physiological phenomena discussed in the lecture and the development of scientific writing skills. Prerequisites: BIOL 204 or 211 and CHEM 112.

BIOL 330. General Microbiology (5). 3R; 6L. Introduces the structure, function, systematics, ecology, and population dynamics of microorganisms emphasizing prokaryotes. Prerequisites: BIOL204 or 211 and CHEM 112.

BIOL 340. Special Topics in Biology (2-4). Selected offerings for undergraduate majors in the biological sciences. Consult Schedule of Courses for current offering(s). Prerequisites: BIOL 204 or 211 and CHEM 112.

BIOL 418. General Ecology (4). 3R; 3L. Principles underlying the interrelationships of living organisms and their environment from the biosphere to the population level of organization. Some laboratory exercises and class projects conducted at local field sites. Prerequisites: BIOL 204 or 211 and CHEM 112.
BIOL 419. Genetics (4). 3R; 3L. The mechanisms of heredity and variation in animals, plants, and prokaryotes with a critical review of gene structure and function. Prerequisite: BIOL 204 or 211 and CHEM 112.

BIOL 420. Molecular Cell Biology (4). 3R; 2L. Concerned primarily with the molecular biology of eukaryotic cells. Covers individual cellular components (organelles) and processes includes the plasma membrane, mitochondrion and energy conversion, intracellular sorting, the cell nucleus and genetic mechanisms, control of gene expression, cell signalling, cell growth and division, cancer, and cellular mechanisms of development. Reviews and demonstrates current techniques and experimental approaches for studying cells. Prerequisites: BIOL 204 or 211 and CHEM 112.

BIOL 471. Wildlife Management (4). 3R; 3L. Presents both theoretical and practical principles of wildlife management. Includes wildlife legislation, ecological rules applicable to wildlife populations, procedures for habitat analysis and inventory, and wildlife restoration. Conduct laboratory exercises and class projects at local field sites. Emphasizes habitat analysis and restoration during the field portion. Prerequisite: BIOL 418.

BIOL 481. Cooperative Education (2-4). Course complements and enhances the student’s academic program by providing an opportunity to apply knowledge gained through course work to job-related situations. For information, contact the coordinator of undergraduate studies or the Cooperative Education program office. No more than 4 credit hours earned in BIOL 481 may be applied toward satisfying the requirements for a major in biological sciences. Prerequisite: applicant and cooperative education position approved by the departmental affairs committee. Offered Cr/NCR only.

BIOL 497. Biology Colloquium (1). S/U grade only. Research seminars presented by graduate students, faculty, and visiting researchers. Requires a written term paper on one of the presented topics. Repeatable once for credit. Prerequisites: two of the following—BIOL 418, 419, 420.

BIOL 498. Undergraduate Independent Reading (2-4). S/U grade only. Students perform library scholarship under the direct supervision of faculty and write a report. No more than 6 credit hours earned from BIOL 498, 499, or equivalent independent study courses may be applied toward departmental major graduation requirements. Prerequisites: at least 20 hours of biology course work that satisfies the major requirements, instructor’s consent, a Directed Independent Study Abstract form, and departmental consent.

BIOL 499. Undergraduate Research (2-4). S/U grade only. Students perform laboratory or field research under the direct supervision of faculty and write a report. No more than 6 credit hours earned from BIOL 498, 499, or equivalent independent study courses may be applied toward departmental major graduation requirements. Prerequisites: at least 20 hours of biology course work that satisfies the major requirements, instructor’s consent, a Directed Independent Study Abstract form, and departmental consent.

Courses for Graduate/Undergraduate Credit

BIOL 502. Vascular Plants (4). 2R; 4L. An introduction to the structure, reproduction, and evolution of the major groups of living and extinct vascular plants. Includes an introduction to flowering plant systematics. Students earning graduate credit perform a primary literature survey on a topic selected in consultation with the instructor and deliver a 30-minute oral presentation to the class. Prerequisites: BIOL 204 or 211 and CHEM 112.

BIOL 503. Taxonomy and Geography of Flowering Plants (4). An introduction to the principles and methods of plant taxonomy and to the study of the patterns of plant distribution and the origin of these patterns. Class time is divided among lectures, laboratories, and field work. Field trips throughout Sedgwick County and to the Flint and Chautauqua Hills provide an opportunity to collect specimens and to observe ecology and distribution of native species of flowering plants. Prerequisites: BIOL 204 or 211 and CHEM 112, or instructor’s consent.

BIOL 523. Freshwater Invertebrates (4). 2R; 4L. Emphasizes the ecology, taxonomy, and form and function of free-living freshwater invertebrates. Half of the course deals with arthropods. Includes methods of collecting, culturing, and preserving specimens. Part of the course grade is based on a 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 112.

BIOL 524. Vertebrate Zoology (4). 2R; 4L. Evolution, distribution, systematics, natural history, and special characters of vertebrate animals. Students earning graduate credit produce a term paper based on the technical literature on a topic chosen in consultation with the instructor. Prerequisites: BIOL 204 or 211 and CHEM 112; BIOL 527 is also recommended.

BIOL 525. Introduction to Ecotoxicology (4). 2R; 2L. An overview of concepts and methodology for conducting tests in the field of ecotoxicology. Examines tests at the molecular, individual, and population level. Covers basic ecological assessments, such as Index of Biological Integrity, Index of Biological Well-Being, and Rapid Bioassessment Protocols; and toxicological protocols like acute and chronic bioassays, biomarkers, and modeling techniques using Quantitative Structure Activity Relationships. Recommended for students interested in learning about the applied methodology used in the rapidly evolving field of ecotoxicology. Prerequisites: BIOL 418 or equivalent and CHEM 531 or equivalent, or instructor’s permission.

BIOL 526. Endocrinology (4). 3R; 3L. The hormonal regulation of bodily functions is considered in representative vertebrate systems, including humans. Students enroll in both lecture and laboratory portions of class. Students earning graduate credit submit a term paper on a topic chosen in consultation with the instructor. Prerequisite: BIOL 204/211 and CHEM 112.

BIOL 527. Comparative Anatomy (5). 3R; 4L. An intensive study of representative chordates emphasizing vertebrate anatomy. Students earning graduate credit complete additional assignments chosen in consultation with the instructor, such as a term paper based on technical literature, dissection of additional animals, etc. Prerequisites: BIOL 204 or 211 and CHEM 112.

BIOL 528. Parasitology (4). 2R; 4L. The parasites of man and other vertebrate hosts. Students earning graduate credit produce a term paper based on the technical literature on a topic chosen in consultation with the instructor. Prerequisites: BIOL 204 or 211 and CHEM 111.

BIOL 530. Applied and Environmental Microbiology (3). Characterization of the roles of microbes in natural and man-made environments. Discussions of microbial ecology and communities, interrelationships with higher organisms, bio-geochemical cycling, biotechnology, and bioremediation. Students earning graduate credit produce an additional research paper based on primary literature on a topic chosen in consultation with the instructor. Prerequisites: BIOL 204 or 111 and CHEM 112.

BIOL 532. Entomology (5). 3R; 4L. An introduction to the morphology, physiology, life cycles, behavior, ecology, and economic significance of insects. Students earning graduate credit produce a term paper based on the technical literature on a topic chosen in consultation with the instructor or develop proficiency in a specific taxon by performing an individual systematic project. Prerequisite: BIOL 204 or 211 and CHEM 112.

BIOL 534. Mammalian Physiology (3). An organ systems approach to mammalian—primarily human—physiology. Emphasizes nervous and endocrine control systems and the coordination of body functions. Students earning graduate credit submit a term paper based upon library research on a topic in mammalian physiology chosen in consultation with the instructor. Prerequisites: BIOL 204 or 211 and CHEM 531, or instructor’s consent.

BIOL 535. Mammalian Physiology Laboratory (2). 4L. An empirical approach to mammalian physiology. Students seeking graduate credit submit an additional laboratory report relating the results of a laboratory experiment to those found in the current technical literature. Prerequisite or co-require: BIOL 534.

BIOL 540. Developmental Biology (4). 2R; 4L. Developmental processes in animals emphasizing vertebrates. Centered on the cell interactions controlling differentiation and morphogenesis. Students earning graduate credit complete additional assignments chosen in consultation with the instructor. Prerequisites: BIOL 204 or 211 and CHEM 112. BIOL 420 recommended.

BIOL 553. Ecological Risk Assessment (4). Risk assessment is the process of assigning magnitudes and probabilities to the adverse effects of human activities or natural catastrophes. It involves global climate change, habitat loss, acid rain deposition, reduced biological diversity, and the ecological impacts of pesticides and toxic chemicals. It uses measure-
ments, testing, and mathematical models to quantify the relationship between the initiating event and the effects. Course is an overview of the basic framework for conducting an Ecological Risk Assessment, and a discussion of individual case studies involving several important environmental issues. An introductory class for students interested in assessing the effects of various stressors on environmental health. Prerequisites: BIOL418 or equivalent and CHEM 533 or equivalent, or instructor’s consent.

BIOL 560. Plant Ecology (2). 2R. An examination of the relationship of plants to their environment at the organism, population, community, and ecosystem levels. For graduate credit, a student must prepare and present a thirty-minute lecture on one of the topics covered in this course. Prerequisites: BIOL418 and CHEM 112 or instructor’s consent.

BIOL 561. Plant Ecology Laboratory (2). Laboratory component of BIOL 560. Field trips are an integral part of the course. Emphasizes an experimental approach to plant ecology. For graduate credit, a student must present the results of the laboratory/laboratory project orally, as well as in writing. Prerequisite: prior or current enrollment in BIOL 560.

BIOL 572. Computer Methods in Biology (3). Includes mathematical modeling of biological systems, tools for recording and retrieving experimental results, computer-aided instruction, internet and online science resources, software for scientific publication including digital photo-documentation and reference managers for bibliographies. Students select a biology topic of interest, study non-statistical and computer approaches previously used, and develop their own approach. Half the course is lectures and demonstrations and half is individual student projects. Graduate students are expected to have had prior experience with the primary literature and be prepared to execute a more sophisticated library research project. Prerequisite: one of the following: BIOL 418, 419, 420, or instructor’s consent.

BIOL 573. Statistical Applications in Biology (3). Supplements STAT 370 by providing experience with practical applications of statistical theory to biological data. Includes computations on data derived from both the primary literature and independently designed research projects. Emphasizes the design of experiments to answer specific hypotheses, the treatment of non-normally distributed data sets and nonhomogeneous experimental test units, and the use of packaged computer programs for certain statistical tests. Access to calculators with at least two memory banks is strongly encouraged. Students earning graduate credit complete an additional statistical analysis assignment involving the use of the computing facilities. Prerequisite: STAT 370.

BIOL 575. Field Ecology (3). 9L. Techniques for analysis of systems consisting of living organisms and their environments. Field trips are required. Students earning graduate credit perform an individual project on comparative community structure and report the results as a technical paper. Prerequisite: BIOL418 or instructor’s consent.

BIOL 576. Aquatic Ecology (5). 2R; 6L. Introduction to the biological and physical processes that operate in lakes, streams, and estuaries. Requires assigned readings, individual projects, and field trips. Students earning graduate credit investigate and compare the characteristics and properties of two freshwater ecosystems or investigate a specific taxon or trophic level in a freshwater ecosystem. The results of this investigation are reported as a technical paper. Prerequisite: BIOL 418 or instructor’s consent.

BIOL 590. Immunobiology (3). The nature of antigens and antibodies and their interactions. Includes cellular and humoral aspects of immunologic phenomena. Students earning graduate credit prepare a term paper based on the technical literature on a topic chosen in consultation with the instructor. Prerequisites: BIOL 204 or 211 and CHEM 531.

BIOL 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. Prerequisites: BIOL 204 or 211, CHEM 112 and instructor’s consent.

BIOL 626. Reproductive Biology (3). Covers the basic organization and function of vertebrate reproductive systems. Includes current concepts and contemporary research from the molecular to the population level. Students earning graduate credit prepare a term paper based on the technical literature on a topic chosen in consultation with the instructor. Prerequisite: BIOL 526 is strongly recommended.

BIOL 630. Behavioral Ecology (3). Study of the biological basis of social behavior, stressing the underlying evolutionary and ecological mechanisms. Lectures examine altruism and kin selection, kin recognition mechanisms, sexual behavior, sexual selection and mate choice, mating systems, and reproductive strategies from the perspective of natural selection. Students earning graduate credit write a term paper based on the technical literature and present this in a class seminar. Prerequisite: BIOL 418.

BIOL 640. Topics in Zoology (3-4). Selected offerings in zoology. Consult the Schedule of Courses for the current offering(s). Students wishing to enroll in courses not listed in the current Schedule must complete a Directed Independent Study Abstract form and obtain approval prior to enrollment. Students earning graduate credit produce a term paper based on the technical literature on a topic chosen in consultation with the instructor. Repeatable. Prerequisites: BIOL 204 or 211, CHEM 112 and instructor’s consent.

BIOL 654. Pathogenic Microbiology (4). 2R; 4L. An introduction to the important pathogenic microorganisms and their relationships to health and disease in humans. Students earning graduate credit prepare a term paper based on the technical literature on a topic chosen in consultation with the instructor. Prerequisite: BIOL 330.

BIOL 660. Topics in Microbiology (2-3). See BIOL 610. Prerequisites: BIOL 330 and instructor’s consent.

BIOL 666. Special Topics in Biochemistry (3). Primarily for students who choose the biochemistry field major. Discusses a small number of current problems in biochemistry in depth. Requires reading published research papers in the field. Students earning graduate credit produce a term paper based on the technical literature on a topic chosen in consultation with the instructor. Prerequisites: BIOL 204 or 211, CHEM 662 and 663.

BIOL 669. Research in Biochemistry (2). Cross-listed as CHEM 669. S/U grade only. Primarily for students who choose the biochemistry field major. Requires participation in a biochemistry research project under the direction of a faculty member and a written report summarizing the results. May be repeated once for credit. Prerequisites: BIOL 420 or 501, CHEM 662 or 663, CHEM 664, and instructor’s consent.

BIOL 702. Environmental Science I (5). 3R; 4L. Cross-listed as GEOL 702 and CHEM 702. Advanced theoretical and applied principles of the interdisciplinary study of environmental science. Includes chemical cycling, atmospheric chemistry, aquatic chemistry, and phase interactions. The laboratory portion addresses local environmental problems from a risk assessment perspective. BIOL 702 and 703 (or equivalent) are required for all graduate students in the master’s of environmental science program. Prerequisite: acceptance into the master of environmental science program or instructor’s consent.

BIOL 703. Environmental Science II (5). 3R; 4L. Cross-listed as GEOL 703 and CHEM 703. Advanced theoretical and applied principles of the interdisciplinary study of environmental science. Includes environmental chemical analysis, environmental toxicology, aquatic microbial biochemistry, environmental biochemistry, water treatment, photochemical smog, and hazardous waste chemistry. The laboratory portion addresses local environmental problems from a risk assessment perspective. BIOL 702 and 703 (or equivalent) are required for all graduate students in the master’s of environmental science program. Prerequisite: BIOL 702 or instructor’s consent.

BIOL 704. Environmental Science Colloquium (1). Cross-listed as GEOL 704 and CHEM 704. Students in the master’s program in environmental science are required to enroll each semester (maximum 4 credit hours). Includes presentations by guest speakers and required readings for class discussion. May also include student involvement in environmentally related community groups and projects. Graded S/U only. May be repeated for up to four hours credit.

BIOL 706. Environmental Science Internship (3-6). Cross-listed as GEOL 706 and CHEM 706. Students in the master’s program in environmental science may gain interdisciplinary skills in environmental science by participating in applied and/or basic research 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 pro-
posal. Completion of an internship for graduation requires a formal oral presentation of the internship activity and a written report. Prerequisite: BIOL702 and 703 or equivalent.

BIOL 710. Glycoprotein (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: BIOL420.

BIOL 720. Neurobiology (3). Basic course in contemporary neurobiology emphasizing learning and memory. Exploration of the current research literature covering all levels of organization from complex behavior to brain information processing pathways, neuronal cell biology, and molecular biology. Each student chooses a topic, completes a written report, and gives an oral presentation to the class. Graduate students do more reading in the primary neurobiology literature. Prerequisites: BIOL 420 and 534 or equivalents and instructor’s consent.

BIOL 737. Aquatic Toxicology (4). 2R; 2L. The qualitative and quantitative study of the fate and effects of toxic agents in the aquatic environment. Class examines the concentrations or quantities of chemicals that occur in the aquatic environment and includes a detailed study of the transport, distribution, transformation, and ultimate fate of various environmentally important chemicals. Class is for undergraduate or graduate students interested in advanced training in toxicology. Prerequisites: BIOL525 or equivalent and CHEM 531 or equivalent, or instructor’s consent.

BIOL 750. Biology Workshop (1-3).

BIOL 760. Experimental Molecular Biology (4). 2R; 6L. Introduces upper-level undergraduate and graduate students to molecular biology techniques. The methodology primarily involves the manipulation of DNA and the expression of genetic material in prokaryotic and eukaryotic systems. Prerequisite: BIOL419 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: BIOL420 and CHEM 662 or their equivalents, plus either BIOL534 or 526 or their equivalents, and instructor’s consent.

BIOL 771. Evolutionary Ecology (4). 3R; 2L. Presents a synthesis of basic principles in population genetics and ecology as a framework for the study of topics in evolutionary ecology. Emphasizes (1) the maintenance and structure of population level genetic variation; (2) mating structure and the evolutionary advantages of sex; (3) individual, kin, group selection; (4) population demographic structure; (5) population regulation and dispersal; (6) life history strategies in heterogeneous environments; and (7) demographic and genetic covariance. Teaches basic techniques in population ecology on several short field trips throughout the semester. Prerequisite: BIOL418, 419, or instructor’s consent.

BIOL 780. Molecular Genetics (3). Studies the physiochemical nature of genetic material and the mechanisms of genetic regulation of metabolism. Students earning graduate credit produce a term paper and deliver a class seminar based on the technical literature on a topic chosen in consultation with the instructor. Prerequisite: BIOL419 or 584.

BIOL 790. Advanced Immunology (3). Contemporary problems in immunologic research. Includes lectures, assigned readings, and reports. Students earning graduate credit produce a term paper based on the technical literature on a topic chosen in consultation with instructor. Prerequisites: BIOL590 and instructor’s consent.

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.

BIOL 798. Biology Seminar (2). Reviews of current research in biological sciences. Repeatable once for credit.

Courses for Graduate Students Only

BIOL 890. Research (2-5). S/U grade only. Students performing research on their thesis projects should enroll for an appropriate number of hours. An oral presentation of the research results must be presented to the student’s thesis committee before a grade is assigned.

BIOL 891. Thesis (2). S/U grade only. Students must be enrolled in this course during the semester in which the thesis is defended.

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 514, 524, 532, 545, 546, 547, 615, 616, and 661, 2 credit hours of 690, and their necessary prerequisites, including MATH 344 and PHYS 313, 314, 315, and 316, or their equivalents. An additional 4 credit hours of professional elective courses must be taken. Courses that will satisfy the professional elective requirement are: (a) CHEM 602, 603, 605, 662, 663, 664, 666, 669, and 1 additional credit hour of 690; (b) mathematics courses with MATH 344 prerequisite or MATH 535; (c) physics courses with PHYS 314 prerequisite; (d) one academic year of German or French; and (e) other courses as approved by the Undergraduate Affairs Committee.

In agreement with the American Chemical Society Committee on Professional Training, the chemistry department strongly encourages students studying for the BS degree to select courses in computer science, economics, marketing, and business and to utilize every opportunity to develop competence in technical writing and oral communication.

The curriculum for the BS in chemistry is approved by the American Chemical Society for the professional training of chemists. Students completing the program receive certification from the American Chemical Society. Students should consult with an advisor for details.

Bachelor of Science in Chemistry—Pre-medical

Students in premedical, pre-dental, pre-veterinary, pre-pharmacy, pre-optometry, or other pre-professional programs may desire this option for which the following courses are required: CHEM 514, 524, 532, and 663 and their necessary prerequisites; MATH 144 or 242 and a one-year sequence of physics courses above 200; 6 additional credit hours of chemistry courses numbered above 500 (CHEM 605 is recommended); and 8 credit hours consisting of BIOL210 and 211.

This program is designed for students not expecting to become professional chemists and therefore does not necessarily meet standards of certification by the American Chemical Society or entry requirements for graduate work in chemistry.

Bachelor of Arts in Chemistry

This degree requires CHEM 524, 532, 545, 546, and 547 and the necessary prerequisites, including MATH 344 and one year of physics (PHYS 313, 314, 315, and 316) or their equivalents. Students with a substantial interest in the biological sciences may satisfy the BA requirements by substituting CHEM 662 and 664, or CHEM 663, for CHEM 524 (then CHEM 523 is required) or by substituting CHEM 662 or 663 for CHEM 546. 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, 546, 615, and 616 and 6 hours of professional development courses. Students planning to become teachers of chemistry should complete the Bachelor of Arts program.
Biochemistry Field Major
The departments of biological sciences and chemistry participate jointly in this program. Students selecting this major should seek the advice of one of the departmental chairpersons as early as possible. The required courses are: BIOL 210, 211, 419, and 420; CHEM 111, 112, 523, 531, 532, 662, 663, and 664; PHYS 213 and 214; and MATH 112 (or 111 and 123). Also required are CHEM 666 and 669 (two enrollments), which are cross-listed in the Department of Biological Sciences, and 21 hours of biochemistry electives.

Chemistry/Business Field Major
The Charles M. Bues program in chemistry/business is designed for students who wish to pursue careers in chemical sales, management, advertising, and other related areas. This program requires 30 hours of business courses as follows: ACCT 210 and 220; ECON 201 and 202; B Law 431; FIN 340; MGMT 360; and MKT 300, 405, and 608. In addition, approximately 30 hours of chemistry and mathematics are required: CHEM 111, 112, 523, 661 or 662, 531, 532, and 603; and MATH 144 or 242.

Students selecting this option should contact the chairperson of the Department of Chemistry as early as possible for advice.

Minor. The chemistry minor consists of at least 14 hours of chemistry courses and must include at least 4 hours from CHEM 514, 523, 531, 532, 545, and 546. Credit is not allowed for both CHEM 533 and CHEM 534 and CHEM 531. A 2.000 GPA in chemistry is required.

Advising. All students pursuing one of the above degrees should consult closely with the Department of Chemistry in planning their program. Students should plan to begin required physical chemistry courses during their junior year (see below), thereby requiring that physics and calculus prerequisites be taken earlier. Students should consult advisors.

Minimum Requirements—Chemistry Programs

Bachelor of Science—Chemistry Courses

Course

<table>
<thead>
<tr>
<th>Course</th>
<th>Hrs.</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHEM 111, 112</td>
<td>10</td>
</tr>
<tr>
<td>CHEM 514</td>
<td>3</td>
</tr>
<tr>
<td>CHEM 531, 532</td>
<td>10</td>
</tr>
<tr>
<td>CHEM 523, 524</td>
<td>8</td>
</tr>
<tr>
<td>CHEM 545, 546</td>
<td>6</td>
</tr>
<tr>
<td>CHEM 547</td>
<td>2</td>
</tr>
<tr>
<td>CHEM 615</td>
<td>3</td>
</tr>
<tr>
<td>CHEM 616</td>
<td>2</td>
</tr>
<tr>
<td>CHEM 661</td>
<td>3</td>
</tr>
<tr>
<td>CHEM 690</td>
<td>2</td>
</tr>
<tr>
<td>PHYS 313, 314, 315, 316</td>
<td>10</td>
</tr>
<tr>
<td>MATH 112, 242, 243, 344</td>
<td>18</td>
</tr>
<tr>
<td>Professional elective</td>
<td>4</td>
</tr>
</tbody>
</table>

Typical Course Sequence

First semester

<table>
<thead>
<tr>
<th>Course</th>
<th>Hrs.</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHEM 111, General Chemistry</td>
<td>5</td>
</tr>
<tr>
<td>MATH 112, Precalculus Mathematics*</td>
<td>5</td>
</tr>
<tr>
<td>ENGL 101, College English I</td>
<td>3</td>
</tr>
<tr>
<td>COMM 111, Public Speaking</td>
<td>3</td>
</tr>
</tbody>
</table>

Second semester

<table>
<thead>
<tr>
<th>Course</th>
<th>Hrs.</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHEM 112, General and Inorganic Chemistry</td>
<td>5</td>
</tr>
<tr>
<td>MATH 243, Calculus II</td>
<td>5</td>
</tr>
<tr>
<td>PHYS 315, University Physics I I</td>
<td>4</td>
</tr>
<tr>
<td>ENGL 220, 230, 232, or other English Literature</td>
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Senior

<table>
<thead>
<tr>
<th>Course</th>
<th>Hrs.</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHEM 111, General Chemistry</td>
<td>5</td>
</tr>
<tr>
<td>MATH 243, Calculus II</td>
<td>5</td>
</tr>
<tr>
<td>PHYS 315, University Physics I I</td>
<td>4</td>
</tr>
<tr>
<td>MATH 344, Calculus III</td>
<td>3</td>
</tr>
<tr>
<td>A general education introductory course in social sciences</td>
<td>3 - 4</td>
</tr>
</tbody>
</table>

Bachelor of Arts

Course

<table>
<thead>
<tr>
<th>Course</th>
<th>Hrs.</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHEM 111, 112</td>
<td>10</td>
</tr>
<tr>
<td>CHEM 531, 532</td>
<td>10</td>
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<tr>
<td>CHEM 523, 524</td>
<td>8</td>
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<tr>
<td>CHEM 545, 546</td>
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<tr>
<td>CHEM 547</td>
<td>2</td>
</tr>
<tr>
<td>Physics (one year)</td>
<td>10</td>
</tr>
<tr>
<td>MATH 112, 242, 243, 344</td>
<td>3 - 5</td>
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</table>

Bachelor of Science in Chemistry-Pre-medicine

Course

<table>
<thead>
<tr>
<th>Course</th>
<th>Hrs.</th>
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</thead>
<tbody>
<tr>
<td>CHEM 111, 112</td>
<td>10</td>
</tr>
<tr>
<td>CHEM 514</td>
<td>3</td>
</tr>
<tr>
<td>CHEM 523, 524</td>
<td>8</td>
</tr>
<tr>
<td>CHEM 531, 532</td>
<td>10</td>
</tr>
<tr>
<td>CHEM 662, 663</td>
<td>6</td>
</tr>
<tr>
<td>CHEM 500-800 (605 recommended)</td>
<td>6</td>
</tr>
<tr>
<td>MATH 144 or 242</td>
<td>3 - 5</td>
</tr>
<tr>
<td>Physics (one year)</td>
<td>10</td>
</tr>
</tbody>
</table>

Biochemistry Field Major

Course

<table>
<thead>
<tr>
<th>Course</th>
<th>Hrs.</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHEM 111, 112</td>
<td>10</td>
</tr>
<tr>
<td>CHEM 523</td>
<td>4</td>
</tr>
<tr>
<td>CHEM 531, 532</td>
<td>10</td>
</tr>
<tr>
<td>CHEM 662, 663</td>
<td>6</td>
</tr>
<tr>
<td>CHEM 664</td>
<td>3</td>
</tr>
<tr>
<td>CHEM (Biol.) 666</td>
<td>3</td>
</tr>
<tr>
<td>CHEM (Biol.) 669</td>
<td>4</td>
</tr>
<tr>
<td>BIO 210, 211</td>
<td>10</td>
</tr>
<tr>
<td>BIO 419</td>
<td>3</td>
</tr>
<tr>
<td>BIO 420</td>
<td>4</td>
</tr>
<tr>
<td>MATH 112 or 111, 123</td>
<td>5 - 6</td>
</tr>
<tr>
<td>PHYS 213, 214</td>
<td>10</td>
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<tr>
<td>Biochemistry electives</td>
<td>21</td>
</tr>
<tr>
<td>Course</td>
<td>Hrs.</td>
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<tr>
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</tr>
<tr>
<td>CHEM 111, 112</td>
<td>10</td>
</tr>
<tr>
<td>CHEM 523</td>
<td>4</td>
</tr>
<tr>
<td>CHEM 531, 532</td>
<td>10</td>
</tr>
<tr>
<td>CHEM 661 or 662</td>
<td>5</td>
</tr>
<tr>
<td>CHEM 603</td>
<td>3</td>
</tr>
<tr>
<td>MATH 144 or 242</td>
<td>3-5</td>
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<tr>
<td>ACCT 210 and 220</td>
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<tr>
<td>ECON 201 and 202</td>
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<tr>
<td>MKT 300, 405, 608</td>
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<tr>
<td>FIN 340</td>
<td>3</td>
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<tr>
<td>MGMT 360</td>
<td>3</td>
</tr>
<tr>
<td>B LAW 431</td>
<td>3</td>
</tr>
</tbody>
</table>

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. General 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 111-112 sequence. Credit is not granted for both CHEM 103 and 111. Prerequisite: one year of high school algebra or MATH 011.

**CHEM 110. Preparatory Chemistry (3).** A general chemistry course for students who have not had adequate preparation in chemistry or physics. Enables students to improve their problem-solving skills and to briefly review mathematical concepts necessary to general chemistry. Introduces the basic chemical concepts of atoms, molecules, chemical reactions, chemical equations, gas laws, and solutions. Credit is allowed in only one of the following: CHEM 103, 110, or 111. Prerequisite: one and a half units of high school algebra or MATH 011.

> **CHEM 111. General Chemistry (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 111-112 meets the needs of students who may wish to take more than one course in chemistry. Credit is allowed in only one of the following: CHEM 111, 103, or 110. Prerequisites: a college-level chemistry course such as CHEM 110, 101, or 103, or high school chemistry or physics; and concurrent enrollment in MATH 111 or two units of high school algebra or MATH 011.

> **CHEM 112. General and Inorganic Chemistry (5).** 3R; 4L. Lab fee. *General education further study course.* Continuation of CHEM 111. Includes thermodynamics, gaseous and ionic equilibria, kinetics, nuclear chemistry, electrochemistry, qualitative analysis, and an introduction to theories of bonding. Prerequisite: CHEM 111 with a grade of C or better.

> **CHEM 301. Issues and Perspectives in Chemistry (3).** Students explore the chemical concepts involved in a minimum of four current national and international scientific, social, and economic issues, and analyze the complexity of the possible solutions of these issues. Prerequisites: CHEM 101, 103, or 111.

**CHEM 481. Cooperative Education in Chemistry (1-4).** Permits chemistry students to participate in the Cooperative Education program. Offered Cr/NCR only.

### Courses for Graduate/Undergraduate Credit

> **CHEM 514. Inorganic Chemistry (3).** *General education further study course.* Basic inorganic chemistry emphasizing molecular symmetry and structure, fundamental bonding concepts, ionic interactions, periodicity of the elements, systematics of the chemistry of the elements, acid-base chemistry and non-aqueous solvents, classical coordination chemistry, and introductory bioinorganic chemistry. Prerequisite: CHEM 112 with a C or better.

> **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 112 with a C or better.

**CHEM 524. Instrumental Methods of Chemical Analysis (4).** 2R; 6L. Lab fee. Introduction to analytical chemistry and optical method of analysis and separation of complex mixtures, both inorganic and organic. Also discusses basic computer programming as it applies to analytical chemistry. Prerequisite: CHEM 523.

> **CHEM 531. Organic Chemistry (5).** 3R; 6L. Lab fee. *General education further study course.* An introduction to the study of carbon compounds emphasizing reaction mechanisms, stereochemistry, and spectrographic analysis. Prerequisite: CHEM 112 with a C or better.

> **CHEM 532. Organic Chemistry (5).** 3R; 6L. Lab fee. A continuation of CHEM 531 emphasizing the structure and reactions of principal functional groups and compounds of biological interest. Prerequisite: CHEM 531.

> **CHEM 533. Elementary Organic Chemistry (3).** *General education further study course.* Basic organic chemistry emphasizing topics of importance to health professions and education majors. Special emphasis to carbohydrates, proteins, drugs, pesticides, and energy production. Students should enroll in CHEM 534 simultaneously. Credit is not allowed for both CHEM 533-534 and 531. This course does not meet the needs of chemistry majors or premed students. Prerequisite: CHEM 112 or equivalent.

> **CHEM 534. Elementary Organic Chemistry Laboratory (2).** Lab fee. Abasic laboratory course to provide pertinent experiences in the laboratory to fortify the survey lecture course CHEM 533. Prerequisite or corequisite: CHEM 533.

> **CHEM 545. Physical Chemistry (3).** *General education further study course.* Thermodynamics. Studies gases, first law thermodynamics, second and third law, phase equilibria, solutions, chemical equilibria, electrochemistry and surface chemistry. Prerequisites: CHEM112, MATH344 or its equivalent and one semester of college physics.

> **CHEM 546. Physical Chemistry (3).** Kinetic theory, transport phenomena, quantum mechanics, spectroscopy, and statistical thermodynamics. Prerequisites: one year of college physics and MATH 344 or its equivalent.

> **CHEM 547. Physical Chemistry Laboratory (2).** 6L Lab fee. Physical chemistry experiments that illustrate principles learned in CHEM 545 and 546. Prerequisite or corequisite: CHEM 546.


> **CHEM 602. Numerical Methods (2).** Application of numerical methods to problems in chemistry and physics. Roots of equations; curve fitting; interpolation, extrapolation, and smoothing of experimental data; numerical differentiation and integration; and computer programming. Prerequisite: instructor’s consent.

> **CHEM 603. Industrial and Polymer Chemistry (3).** Bridges the industrial-academic gap. Includes petroleum refining processes and distillation technology. Inorganic topics include glass technology, electro-refining and electropolishing, and battery chemistry. Discusses cellulose-based products such as gelling polysaccharides and natural fibers along with industrial adsorbents (clays, zeolites, ion exchange resins, carbon blacks), and emulsion technology. Topics in polymer chemistry include ways of making polymers, resins, elastomers, and synthetic fibers; methods of polymer analysis, structure-property correlations (how structure influences physical properties) plastics recycling, and methods of plastics and composites processing. Prerequisite or corequisite: CHEM 532.
CHEM 605. Medicinal Chemistry (3). For students interested in chemistry related to the design, development, and mode of action of drugs. Course describes those organic substances used as medicinal 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. Prerequisites: CHEM 514 and 546.

CHEM 615. Advanced Inorganic Chemistry (3). Includes modern bonding theories, structure and spectra of inorganic compounds, coordination and organometallic chemistry, boranes, inorganic ring systems and polymers, inorganic environmental chemistry, mechanisms of inorganic reactions, and solid state chemistry. Prerequisites: CHEM 514 and 546.

CHEM 616. Inorganic Chemistry Laboratory (2). 6L. Lab fee. Experimental methods of inorganic chemistry. Prerequisite or co-requisite: CHEM 615.

CHEM 660. 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 for health sciences or biochemistry field majors for whom CHEM 662 and 663 are required. Introduces thermodynamics and biological oxidation-reduction reactions; structure, metabolism, and synthesis of proteins, carbohydrates, lipids, and nucleic acids; enzyme kinetics, photosynthesis, and transfer of genetic information. Prerequisite: CHEM 552.

CHEM 662. Biochemistry of Cell Constituents, Catalysis, Oxidation, Photosynthesis (3). Study of major constituents of the cell: protein, carbohydrate, glycoprotein, lipid, nucleic acid, nucleoprotein; enzyme catalysis; biological oxidations; photosynthesis; and introduction to intermediary metabolism. Fundamental background of biology or microbiology is recommended but not essential. Prerequisites: CHEM 523 and 532 or equivalents.

CHEM 663. Biochemistry of Cell Metabolism, Biosynthesis, Structure, Function, and Regulation of Proteins and Nucleic Acids (3). Study of metabolism and control of carbohydrates, lipids, phosphoglyceraldehydes, spinoglycals, 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. 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. Should be taken concurrently with CHEM 662 or CHEM 663. Prerequisite: CHEM 532 or equivalent.

CHEM 666. Special Topics in Biochemistry (3). (Offered spring semester in odd-numbered years.) Discusses a small number of current problems in biochemistry in depth. Requires reading of published research in the field. Prerequisites: BIOL 204 and CHEM 662 and 663.

CHEM 669. Research in Biochemistry (2). Cross-listed as BIOL 669. S/U grade only. 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. Prerequisites: BIOL 240 and CHEM 662 or 663 and 664.

CHEM 690. Independent Study and Research (2-3). Studies performed must be directed by a faculty member in the Department of Chemistry. Repeatable for credit. A maximum of 3 credit hours may be counted toward graduation. Prerequisite: departmental consent.

CHEM 700. Chemistry Seminar (1). S/U grade only. Students give seminars on either papers recently published in the literature or on their own research. Repeatable for credit.

CHEM 701. Chemistry Colloquium (1). S/U grade only. Speakers for the colloquium consist of outstanding chemists from other institutions and faculty. Repeatable for credit.

CHEM 702. Environmental Science I (4). 2R; 3L. Cross-listed as BIOL 702 and GEOL 702. Advanced theoretical and applied principles of the interdisciplinary study of environmental science. Includes chemical cycling, atmospheric chemistry, aquatic chemistry, and phase interactions. Prerequisite: acceptance into the master’s program in environmental science or instructor's consent.

CHEM 703. Environmental Science II (4). 2R; 3L. Cross-listed as BIOL 703 and GEOL 703. Advanced theoretical and applied principles of the interdisciplinary study of environmental science. Includes environmental chemical analysis, environmental toxicology, aquatic microbial biochemistry, environmental biochemistry, water treatment, photochemical smog, and hazardous waste chemistry. Prerequisite: acceptance in the master’s program in environmental science or instructor’s consent.

CHEM 704. Environmental Science Colloquium (1). Cross-listed as BIOL 704 and GEOL 704. Students in the master’s program in environmental science are required to enroll each semester (maximum 4 credit hours). Includes presentations by guest speakers and required readings for class discussion. May also include student involvement in environmentally related community groups and projects.

CHEM 705. Environmental Science Internship (3-6). Cross-listed as BIOL 705 and GEOL 705. Students in the master’s program in environmental science may gain interdisciplinary skills in environmental science by participating in applied and/or basic research internship projects with local business, industry, or government agencies. Internship option is an alternative to thesis research for degree requirements. Enrollment in internship projects requires an approved proposal. Completion of an internship for graduation requires a formal oral presentation of the internship activity and a written report. Prerequisites: CHEM 702 and 703.

CHEM 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 711. Coordination Chemistry (3). The study of the synthesis, characterization, and properties of coordination compounds. Includes nomenclature, fundamental bonding concepts, principles of synthesis, mechanisms of substitution and electron transfer reactions, catalysis, and solid-state phenomena. Prerequisite: CHEM 615 or equivalent.

CHEM 713. Physical Methods in Inorganic Chemistry (3). An introduction to electronic and vibrational spectroscopy, magnetic susceptibility, EPR, NMR, Mössbauer spectroscopy, and X-ray crystallography as applied to inorganic systems. Emphasis on interpretation of results for understanding the electronic and molecular structure of compounds.

CHEM 731. Physical Organic Chemistry (3). Discussion of advanced topics in stereochemistry and conformational analysis and organic reaction mechanisms. Prerequisite: CHEM 352.

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 352.

CHEM 738. Structure Determination and Spectral Analysis of Organic Compounds (3). Discusses chiroptic techniques, infrared, ultraviolet, nuclear magnetic and electron spin resonance and mass spectroscopy, and their practical utilization in structure determination. Prerequisite: CHEM 352.

CHEM 741. Quantum Chemistry (3). Theoretical basis of atomic and molecular structure. Includes the postulates of quantum mechanics, exact solutions for the particle-in-a-box and the hydrogen atom, variation and perturbation techniques, electron spin, Hartree-Fock and configuration-interaction methods, molecular-orbital and valence-bond wave functions, and virial and Heilmann-Feynman theorems. Prerequisites: CHEM 546, MATH 344 or equivalent. Corequisites: CHEM 705 or equivalent.

CHEM 744. Computational Quantum Chemistry (3). An introduction to molecular orbital procedures and methods for
ing, 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 25 weekly newspapers, and more than 25 advertising agencies, and a range of international, national, regional, and local industries, businesses, and public agencies, many with substantial communication operations. This setting allows students to combine academic and professional interests in a program that matches concept with example, education with experience.

**Degree Requirements**

**Major.** Students majoring in communication must maintain a 2.500 grade point average (overall and in the major), complete a minimum of 40 credit hours in communication, including 22 credit hours in the communication core, and submit a portfolio of their work during their senior year (see portfolio requirement below).

All students must take the communication core courses: COMM 130, 301, 305, 325, 472, 535, and two courses from 430, 680, 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.

- **Strategic Communication:** One course from 311 and 328 (Foundation cluster); choose one course from 290, 302, and 312 (Interpersonal Communication cluster); choose one course from 640, and 650 (Organizational Communication cluster); choose one course from 313, 502, and 632 (Public Affairs cluster); choose one course from the following or two courses that combine for three credits from 398, 402, 481, 581, 622, and 690 (Practicum); choose one additional course selected in consultation with your advisor (Elective).

- **Broadcast Journalism:** COMM 401, 422, 622, one course from 304, 500, 522, 604, and 609; and 6 hours of upper-division communication elective credit.

- **Electronic Media:** COMM 303, 304, 332, 604, 609, and 3 hours of upper-division communication elective credit.

- **Integrated Marketing Communications:** COMM 324, 502, 510, 525, 626, and 3 hours of upper-division communication elective credit. Outside course requirements: MKT 300 and 405.

- **Print Journalism:** COMM 310, 401, 500, 510, one course from 340, 350, 571, 600; and 3 hours of upper-division communication elective credit.

- **Open Emphasis:** Students can develop and propose an open emphasis more appropriate for their interests and needs than a structured emphasis area and which respects their backgrounds and experience. These proposals must be developed by students in consultation with a faculty advisor, be substantially different from the structured 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 advisor (6 of the 12 hours must be at the 300-level or above).

**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 course work 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 course work may be in the communication core courses.

**Certificate in Applied 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, 360, and 650; COMM 118, Public Speaking, or the equivalent is a prerequisite for the certificate program.

**Teaching Certifications.** The Elliott School of Communication offers secondary education teaching certifications (secondary field only) in two areas: speech communication and journalism. Students seeking the speech communication teaching certification must complete the following courses: COMM 111, 130, 190, 311, and 661; and THEA 143 and 272. Students seeking the journalism teaching certification must complete the following courses: COMM 130 or 631, 301, 310, 510, 612, and 630; and one upper-division writing course in communication. Successful completion of either certification requires maintenance of a 2.500 GPA, both overall and in the student’s major field of study.

**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.

**Advising Requirements**

The undergraduate coordinator will advise all pre-majors in communication to help students understand and attempt to meet the requirements for admission to major status in communication (see Admission Requirements above). Upon admission to major status, students will be assigned a faculty advisor who will help them select their emphasis area or develop an open emphasis, which requires preparation of an undergraduate plan of study. Students are strongly encouraged to meet with their advisors at least once a semester while they are enrolled.

**Portfolio Requirement**

Students majoring in communication must successfully complete COMM 472, Senior Portfolio Seminar. The seminar will assist students to prepare a resume and portfolio that reflects their academic and professional work in communication, and which can be used in seeking employment or opportunities for further study upon graduation. The portfolio, which can include resumes, interactive media, brochures, and scholarly papers, will be reviewed by a three-member committee of communication faculty and professionals. Students should enroll in the seminar upon achieving senior status (i.e., finished 90 hours of course work) and after completing at least 18 hours of communication course work.

**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 ENGL101, ENGL102, and COMM 130; and pass the department’s Grammar, Spelling, and Punctuation (GSP) exam.
Lower-Division Courses

COMM 011. Reducing Fear of Speaking (2). For students who feel an unwarranted degree of fear, nervousness, or stage fright when confronting situations calling for oral communication, especially but not exclusively, before groups of people. Goal is to reduce the fear of such situations through practice in supportive settings and other specific methods developed in the fields of counseling and speech communication that have been demonstrated effective in reducing communication anxiety.

COMM 111. Public Speaking (3). General education basic skills course. Studies basic concepts of speech communication as applied to public speaking. For students wishing to enhance leadership potential by improvement in traditional public speaking situations (The University’s 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. Utilizes multimedia instructional procedures.

COMM 202. Debate and Forensics (3). Research and preparation for debate and individual speaking events, participation in intercollegiate debate and/or forensics competition, and debate and forensics squad meetings. Repeatable for a maximum of 6 hours credit. May not be counted toward a major. Prerequisite: Departmental consent.

COMM 220. Introduction to Film Studies (3). Emphasizes the nature and function of film as a mode of communication with attention to film theory and technical criticism. Selected films are shown in class.

COMM 221. Oral Interpretation (3). General education further study course. Cross-listed as THEA 221. Develops the mental, vocal, and analytical techniques essential to the oral interpretation of literature.

COMM 222. Improving Voice and Diction (3). Cross-listed as THEA 222. For students wishing to improve their speaking voices and gain greater control over their pronunciation of spoken English. Course is performance oriented; however, the anatomy of the vocal mechanism and the International Phonetic Alphabet are studied for practical application in the improvement of voice and diction.

COMM 260. Seminar in Communication (1-3). Special seminars dealing with current problems, issues, or interests in various areas of communication. For the introductory student in communication. Repeatable for credit in different topics only.

Upper-Division Courses

COMM 302. Interpersonal Communication (3). General education further study course. Develops an awareness of the elements of interpersonal communication and aids the student in establishing more meaningful and effective interpersonal relationships, both personally and professionally.

COMM 303. Audio Production (3). Production and direction of audio programs. Hands-on use of all standard audio production equipment to learn techniques of sound blending and reproduction.

COMM 304. Studio Video Production (3). 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 Photographic Imaging (3). 2R; 3L. Lab fee. Basic photographic theory and technique emphasizing aspects of importance to journalists, writers, and editors. Students take, develop, and prepare pictures for publication. Prerequisite: COMM 301.

COMM 311. Persuasion (3). General education further study course. Explores the history, development, and manifestation of persuasive techniques through the study and/or creation of persuasive messages in speeches, mass media, advertising, politics, and organizations. The student becomes a better user and critic of persuasive messages and strategies. Prerequisite: COMM 111.

COMM 312. Nonverbal Communication (3). General education further study course. Astudy 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 332. Writing for Electronic Media (3). Writing formats, commercials, continuity, and drama for the electronic media, including audio and video programs and productions. Prerequisite: COMM 301 with a C or better or instructor's consent.

COMM 340. Applied Photojournalism (3). Lab fee. Covering photographic assignments for the campus newspaper and other publications, under the overall supervision of a journalism instructor. Prerequisite: COMM 310.

COMM 398. Travel Seminar (1-4). An interdisciplinary travel seminar that allows a student to gain credit for the study of one of the following: culture, art, literature, architecture, politics, society, science, and economics while visiting historic places of interest. Prerequisite: departmental consent.

COMM 401. Beat Reporting (3). Reporting and writing about events in the community. Stories assigned and handled under the instructor's direction may be used in various publications. Prerequisite: COMM 301 with a C or better.

COMM 402. Debate and Forensics (3). Research and preparation for debate and individual speaking events, participation in intercollegiate debate and/or forensics competition, and debate and forensics squad meetings. 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 460. Seminar in Communication (1-3). Special seminars dealing with current problems, issues or interests in various areas of communication. For the intermediate student in communication. Repeatable for credit in different topics only.

COMM 481. Cooperative Education (1-2). Credit for cooperative field placement that integrates theory with a planned and supervised professional experience designed to complement and enhance the student's academic program. Individualized programs must be formulated in consultation with and approved by appropriate faculty sponsors. May be repeated, but limited to a total of 4 credits in COMM 481 and COMM 690. Graded CR/NC. Prerequisite: departmental consent.

Courses for Graduate/Undergraduate Credit

COMM M 500. Advanced Reporting (3). 1R; 4L. For juniors and seniors; the techniques of reporting and writing the more complex and important types of news stories. Covers police beat stories, sports, and economic reporting; includes the study and practice of journalistic interviewing. Prerequisites: junior standing, COMM 301 with a C or better, and either 401 or 422.

COMM M 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 M 510. Editing for Print (3). Selection, evaluation, and preparation of copy and pictures for publication. Covers copy editing, rewriting, headline and caption writing, and page layout. Prerequisites: junior standing and COMM 301 with a C or better.

COMM M 511. Strategic Communication in Organizations (3). Emphasizes the importance of effective communication in building meaningful relationships, grooming civic leadership and producing marketable employees. Human communication skills taught include: how to give effective presentations, facilitate small group discussions, handle conflict, manage diverse constituencies at various levels of organizational, interpersonal, small group, public and contemporary topics and issues. Prerequisite: COMM 130 or instructor's consent.

COMM M 522. Advanced Broadcast News (3). 3R; 3L. Advanced techniques of preparing news for radio and television presentation emphasizing actual work in radio and television newsrooms. Lab periods arranged with instructor. Prerequisite: COMM 422.

COMM M 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 and COMM 301 with a C or better or departmental consent.

COMM M 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 M 550. Opinion Writing (3). Studies editorial judgment, including practice in the writing of print, broadcast, and electronic opinion pieces, and the examination of traditional and new technology research materials available to opinion writers. Prerequisites: COMM 301 with a C or better and junior standing.

COMM M 570. Magazine Production (3). Magazine production, including the choosing of subjects, approaches and illustrations; the shooting and editing of photographic stories; layout; the handling of production and management concerns. Prerequisites: COMM 301 and 510 or departmental consent.

COMM M 571. Feature Writing (3). Writing features for newspapers and magazines. Nonfiction topics may include personal experience essays, consumer pieces, travel articles, and personality profiles. Prerequisites: COMM 301 with a C or better and junior standing.

COMM M 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 M 604. Video Storytelling (3). Application of video equipment and techniques for field productions. Execution of visual and audio expression in relation to effective video productions in a field setting. Prerequisite: COMM 304 or instructor's consent.

COMM M 609. Interactive Media Production (3). Investigation and application of production techniques for educational and instructional broadcasting, emphasizing television. Prerequisite: COMM 304.

COMM M 612. School Publications Advising (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 M 622. Studio B: alive Television News (3). Reporting and writing about events in the University and community. Story assignment and preparation under the instructor's guidance; story broadcast over WSU Cable Channel 13. May be repeated for credit with advisor's consent. Prerequisite: COMM 422 or instructor's consent.

COMM M 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. Prerequisite: COMM 324 or instructor's consent.

COMM M 635. Leadership Techniques for Women (3). Cross-listed as WOM S 635. Provides the female student experience in decision making and improves skills in leadership through role playing and exercise in group dynamics.

COMM M 636. Advanced Public Speaking (3). Skills development in a variety of advanced presentation methods.
including speaking from a TelePrompter using PowerPoint technology, spokesperson/presentation conference speaking, conducting a training session, formal manuscript speaking, after dinner speaking, and writing a speech for another person.

COMM 640. Issues in Corporate Communication (3). Examines how corporations craft messages that are persuasive to their various publics. Special attention to how companies use communication strategies to cope with situations that threaten their reputations.

COMM 650. Communication Training and Development (3). An examination of communication concepts, processes, technologies, and strategies related to training and development. Includes the application of these elements to formal instruction across disciplines and at various educational levels as well as in most professional training settings.

COMM 660. Seminar in Communication (1-3). Special seminars dealing with current problems, issues, or interests in various areas of communication. Repeatable for credit in different topics only.

COMM 661. Directing the Forensics Program (3). A study of the methods and procedures in coaching and directing the high school and collegiate forensic programs (debate and individual events). The future teacher is made aware of the literature and professional organizations in the field.

COMM 675. Directed Study (2-4). 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 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 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.

Courses for Graduate Students Only

COMM 801. Introduction to Communication Research (3). An integrative approach to an understanding of the nature and scope of communication research and graduate studies in communication and theatre/drama. Provides an overview of current research in the discipline. Instruction in the basic steps of research; availability of library and other sources; bibliographic search; computer accessing of source materials; organization, style, and format of a research report and citation of sources in accordance with standard style guides. Should be taken at the beginning of the graduate program.

COMM 802. Historical and Qualitative Methodologies in Communication Research (3). An introduction to historical, critical, and observational methodologies in communication research. Emphasizes historical, critical, and observational research, particularly those forms of research common to communication studies. Prerequisite: COMM 801.

COMM 803. Empirical/Quantitative Research Methodology in Communication (3). An introduction to empirical research methods in communication. Emphasizes both experimental and nonexperimental research, particularly those forms of research common to communication studies. Studies design, methods, and reporting techniques. Prerequisite: COMM 801.

COMM 812. Contemporary Theories of Communication (3). Studies selected conceptual models useful in the academic study of human communication, including theories involving such contexts as interpersonal communication, public communication, and mass communication.

COMM 820. Investigation and Conference (2-3). Cross-listed as Thea. 820. Directed research and experimentation for graduate students in some phase of (a) speech communication, (b) electronic media, or (c) speech education. Repeatable for credit up to a total of 6 hours.

COMM 825. Group Communication (3). Examines communication processes that operate in groups in various contexts. Provides an overview of relevant theory, as well as methodologies through which group communication may be critically analyzed in applied settings.

COMM 830. Theories of Rhetoric: Classical (3). Cross-listed as ENGL 825. An intensive study of the rhetorical theories of classical writers from 466 B.C. to the decline of Roman oratory. Principal emphasis on Isocrates, Plato, Aristotle, Quintilian, Cicero, and Longinus.

COMM 831. Theories of Rhetoric: Renaissance to Early Modern (3). Cross-listed as ENGL 826. Study of the emerging patterns of rhetoric from the Second Sophistic to modern times. Analyzes the rhetorical systems associated with such figures as Augustine, Fellen, Bulver, Sheridan, Steale, Rush, John Quincy Adams, Blair, Campbell, and Whately.

COMM 860. 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 865. Organizational Communication (3). Cross-listed as MGMT 865. An examination of communication models emphasizing their applications to communication problems in organizations. Explores social psychological processes underlying persuasion in interpersonal relations and through the mass media. Critically analyzes communication systems and techniques within formal organizations.

COMM 870. Directed Study (1-3). Individual study or projects. Repeatable for credit with departmental consent. Prerequisite: departmental consent.

COMM 875-876. Thesis (1-3-1-3). Prerequisite: departmental consent.

Communicative Disorders and Sciences (CDS)

For students desiring an emphasis in applied language study, see requirements and curriculum for a major in communicative disorders and sciences through Fairmount College listed in the College of Education section of the Catalog.

Community Affairs, School of

WSU's School of Community Affairs, created in 1999, brings together the departments of criminal justice, ethnic studies, and gerontology to form a unique and diverse curriculum to better serve the needs of students to work in an ever-changing urban and global community. Additionally, the Midwest Criminal Justice Institute (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 and Master of Arts degrees in criminal justice. 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) with at least 21 semester hours of upper-division course work in criminal justice. ENGL 210 and ETH S 360 are additional requirements
to be taken during the first two semesters as a criminal justice major. Students who plan to graduate with a BS in criminal justice must also satisfy Fairmount College requirements (including the foreign language requirement) and the University requirements for the Bachelor of Science degree. The curriculum is divided into two areas:

1. Core courses: CJ 191, 391, 392, 394, and 593; and CJ 407 or 597.
2. Students must complete the 18 hours of core courses and 18 hours of electives. Students may take 14 additional credit hours beyond the 36 hours required for the major (for a total of 50 hours). There is a maximum of 6 hours in each of the following: 481, 482, or 483; and there is a maximum of 12 hours total in any combination of 481, 482, and 483.

Minor. The minor in criminal justice consists of at least 18 hours of criminal justice courses, of which at least 6 hours must be at the upper-division level (300 and above). The following requirements must be met for the minor:

1. CJ 191
2. A minimum of two and a maximum of three of the following courses: CJ 391, 392, and 394, and 407.

Certificate Programs in Criminal Justice

Certificate programs are designed to enhance the career needs of law enforcement and other criminal justice system professionals or those who contemplate a career in the criminal justice profession. A certificate is not a substitute for an academic degree and will not qualify a person for a position which requires a degree.

Certificate in Forensic Criminology

The Certificate in Forensic Criminology is a four-course sequence that provides a study of the application of the natural sciences to assist law enforcement, and the criminal justice system. It is designed for:

- Individuals who want to work as crime scene investigators, criminal investigators, and crime laboratory personnel.
- Individuals who have an interest and future career plans in policing and scientific crime detection.
- Individuals who want exposure and knowledge of forensics as a possible career choice.

To qualify for a Certificate in Forensic Criminology, students must complete four of the following courses with an average grade of B or better. CJ 191, Introduction to Criminal Justice, is a prerequisite for all courses.

- CJ 341, Criminalistics and Scientific Crime Detection
- CJ 343, Special Investigations
- CJ 541, Medical and Legal Aspects of Death Investigation
- CJ 600, Forensic Anthropology
- CJ 641, Forensic Psychiatry
- CJ 643, Forensic Science

Certificate in Cross-Cultural Communications in Criminal Justice

The Certificate in Cross-Cultural Communications provides learning experiences that will prepare practitioners to promote favorable interaction between criminal justice agencies and the minority groups they serve. This emphasis area prepares students to develop empathetic responsiveness, combined with humanistic insights, and to develop and maintain mutually dependent helping and working relationships between criminal justice agencies and a variety of minority groups.

Students majoring in criminal justice also may obtain the Certificate in Cross-Cultural Communications in addition to the BS in criminal justice degree. Those students seeking this certificate must satisfactorily complete ETHS 210, Fundamentals of Cross-Cultural Communication, and one of the following: ETHS 331, The Black Family; ETHS 332, The Native American; ETHS 333, Issues in the Chicano Community; ETHS 334, Ethnic American in the Twentieth Century.

Also, students must take 12 additional hours in ethnic studies course work, of which must be in upper-division courses.

Certificate in Corrections

The Certificate in Corrections is designed to enhance the career needs of:

- Individuals who are employed as correctional practitioners.
- Individuals who want exposure to corrections as a possible career choice.

To qualify for a Certificate in Corrections, students must complete four of the following courses with an average grade of B or better. CJ 191 is a prerequisite for all courses.

- CJ 391, Corrections
- CJ 310, Community-Based Corrections
- CJ 896, Seminar in Corrections
- CJ 610, Correctional Counseling
- CJ 652, Juvenile Justice and Social Policy

Certificate in Law Enforcement

The Certificate in Law Enforcement is designed to enhance the career needs of:

- Law enforcement officers.
- Individuals who want exposure and knowledge of law enforcement as a possible career choice.

To qualify for a Certificate in Law Enforcement, students must complete four of the following courses with an average grade of B or better. CJ 191 is a prerequisite for all courses.

- CJ 392, Law Enforcement
- CJ 895, Seminar in Policing
- CJ 341, Criminalistics and Scientific Crime Detection
- CJ 343, Special Investigations
- CJ 692, Community Policing
- CJ 861, Police Administration

Lower-Division Course

>CJ 191. Introduction to Criminal Justice (3). General education introductory course. Introduces crime and the criminal justice system by discussing the nature of crime and by identifying multiple facets of the justice system, including the police, the courts, and correctional agencies. Studies the role of the criminal justice system as it relates to the individual and to society. Students become acquainted with criminal justice careers.

Upper-Division Courses

CJ 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 their definition, history, purpose, administration/process, problems, cost, and effectiveness. Prerequisite: CJ 191.

CJ 315. Criminal Law (3). History, scope, and nature of law; parties to crime; classification of offenses; act and intent; capacity to commit crime; and defenses. Examines elements of major criminal statutes and an overview of criminal processes and rules of evidence. Prerequisite: CJ 191.


CJ 343. Special Investigations (3). Care, collection, and preservation of evidence. Studies sources of information and locating subjects, crime scene recording, and investigative techniques applicable to specific offenses. Prerequisite: CJ 191.

>CJ 351. The Victim in Criminal Justice (3). General education introductory 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). Cross-listed as ETHS 355. General education introductory course. Examines the role of women and minorities as employees of the criminal justice system. Also explores the role of women, minorities, juveniles, and elder citizens as...
individuals who commit crime and are apprehended and sanctioned by the criminal justice system. Considers the unique challenges of each of the four identified populations, including their interactions with law enforcement, the judiciary, and corrections. Prerequisite: CJ 191.

CJ 381. Special Topics (1-3). Detailed study of topics in criminal justice with particular emphasis established according to the expertise of the various instructors. Prerequisite: CJ 191.

CJ 382. Workshop in Criminal Justice (1-3). Prerequisites: CJ 191 and instructor’s consent.


CJ 392. Law Enforcement (3). Examines the interaction of police and citizens as regulated by constitutional provisions and other legal and social constraints. Prerequisite or co-requisite: 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. Student plays 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 420. Criminal Evidence (3). Concepts of criminal evidence rules as they pertain to kinds and degrees of evidence—procedure for admitting or excluding evidence; witness and privileged communications; the hearsay rule and its exceptions; and judicial notice, burdens of proof, and presumptions. Emphasizes the rules of evidence that govern the criminal justice process. Prerequisite: CJ 191.


>CJ 453. Crime Prevention (3). *General education further study course.* A study of the theories of crime prevention efforts by governmental and nongovernmental agencies. Analyzes factors which contribute to the reduction of crime; crime analysis and prediction; the methodology of gathering crime data; and the relationship between the criminal justice system and the public. Prerequisite: CJ 191.

CJ 481. Cooperative Education (1-6). Provides a field placement which integrates theory with a planned and supervised professional experience designed to complement and enhance the student’s academic program. Individualized programs must be formulated in consultation with and approved by the cooperative education coordinator. Prerequisites: criminal justice major, 15 hours of CJ courses, junior or senior standing, and consent of the criminal justice agency. Offered Cr/NC only.

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 ETH S 501, GERON 502, PADM 501. Exposes the student to basic principles of personal and professional integrity and how those principles apply to their daily life as a member of the community and as an employee of a government or social service agency. Employs a case study method, using cases and examples from a wide range of government and non-profit agency experiences. Students become aware of the moral and ethical issues which may arise in their professional and personal lives; begin to develop critical thinking and analytical skills regarding ethical behavior; and become more personally and professionally responsible. Prerequisite: junior- or senior-level or instructor’s permission.

>CJ 513. Violent Crime (3). *General education further studies course.* Examines the extent, causes and policy implications of violent crime. Begins with a review of the rates of violent crime in various parts of the U.S. and will provide 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 will be required. Prerequisite: CJ 191.

CJ 515. Sex Crimes (3). Examines and defines what is classified as criminal forms of sexual behavior and the unique challenge they present to the criminal justice system. Also examines the extent and nature of sex crimes, sexual predator laws, sexual harassment and the victims of such crimes. Also 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 will be given to crime scene investigations, mechanisms of injury and death and sex-related homicides. Prerequisite: CJ 191.

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 format 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 600. Forensic Anthropology (3). Cross-listed as ANTHR
600. Encompasses the area of criminal investigation involving
biological evidence: blood, hair, fingerprint, dentition, and
skeletal system. Covers procedures of collection, preserva-
tion, marking, transportation, referral, laboratory analysis,
classification, and identification emphasizing anthropological
interpretation. Prerequisite: CJ 191.

CJ 610. Correctional Counseling (3). Analysis of the role of
a correctional counselor. Emphasizes current practices in
community-based and institutional correctional counseling.
Discusses application of theories of counseling which are
widely used in correctional settings, rehabilitative programs,
and special needs of offenders. Prerequisite: CJ 191.

CJ 621. Environmental Law (3). Cross-listed as ETH S 621
and PADM 621. An in-depth analysis of emerging federal,
state, and local legislation; judicial decisions, and administra-
tive policies in environmental protection. Explores the roles of
a variety of governmental agencies and nongovernmental
organizations as related to prevention and enforcement
processes of environmental protection. Includes issues in the
development and implementation of environmental policy.
Prerequisite: an approved methods class.

CJ 625. Computer Applications for Public Policy (3).
Cross-listed as ETH S 625, GERON 625, PADM 625. Familiar-
izes students with major types of software applications for
microcomputers and their use in public policy analysis.

CJ 641. Forensic Psychiatry (3). Analysis of the role of psy-
chiatry in the criminal justice process. Introduces the student
to concepts and procedures of forensic psychiatry. Prerequi-

CJ 643. Forensic Science (3). An overview of the various
sciences used in the forensic investigation of crime, including
biochemistry, drug identification, questioned documents,
firearm and ballistics identification, trace evidence analysis,
fingerprint identification, forensic pathology, forensic se-
nology, forensic odontology, and forensic anthropology. Prerequi-

CJ 651. Dispute Resolution (3). Cross-listed as ETH S 651,
GERON 653, PADM 651. Examines a range of topics includ-
ing causation, typologies, communications, mediation, arbitra-
tion, and other dispute resolution techniques. Includes
criminal and victim mediation and inter-group and inter-organiza-
tion relations and dispute resolution tech-
niques. Analyzes case studies.

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 jus-
tice reform movement. Covers delinquency prevention and
control and ethical issues associated with juvenile justice. Pre-

CJ 692. Community Policing (3). Reviews the various mod-
els and strategies of community policing. Examines key con-
cepts, such as problem oriented policing, crime prevention,
community relations, and empowering the community, and
the integration of these concepts into community policing.
Prerequisites: CJ 191.

CJ 702. Research Methods (3). Cross-listed as ETH S 702,
GERON 702, PADM 702. Acquaints students with applied
public policy research methods. Emphasizes locating, collect-
ing, appraising, and utilizing both primary and secondary
sources of data of the type used in policy, planning, and
administrative research. Students must complete several
short research projects.

CJ 781. Cooperative Education (1-6). Provides a paid field
placement that integrates theory with a planned and supervi-
sed 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 coopera-
tive education experience must be an integral part of the stu-
dent’s graduate program. Individualized programs must be
formulated in consultation with, and approved by, the coop-
erate-education coordinator. Open only to CJ graduate stu-
dents. Offered Cr/NC only.

CJ 782. Workshop in Criminal Justice (1-6). Prerequisite: CJ
191 and instructor’s consent.

CJ 783. Advanced Special Topics in Criminal Justice (1-
3). Detailed study of topics in criminal justice with particular
emphasis established according to the expertise of the various
instructors. Prerequisites: CJ 191 and junior-, senior-, or gradu-
ate-level standing.

Cross-listed as PADM 845. An overview of approaches to
public policy analysis and program evaluation. Examines the
roles of participants in public policy development, implemen-
tation, and evaluation. Explores policy and program
functions and their intended and unintended impacts. Focus-
es on methodologies for collection of data and their use in the
assessment of programs and program impacts. Prerequisites:
an approved statistics class and an approved methods class.

Courses for Graduate Students Only

CJ 802. Quantitative Methods for Public Sector Profes-
sionals (3). Cross-listed as GERON 802 and PADM 802. Uses
standard microcomputer statistical software and analysis to
introduce statistics and quantitative analysis for organiza-
tional and policy decision making. Emphasizes the application
of statistics and writing with quantitative evidence to real pub-
lic sector policy questions. Assumes little or no background
in statistics and software applications. Prerequisite: either CJ
702, GERON 702, or PADM 702.

CJ 816. Correctional Administration (3). Analyzes basic
methods utilized in the organization and accomplishment of
objectives in correctional institutions. Reviews methods uti-
lized in traditional correctional institutions, diagnostic cen-
ters, halfway houses, and other treatment models.

CJ 817. Crime in Popular Culture (3). Analyzes film as an
expression of popular culture; focuses on films dealing with
subject of crime. Particular attention to portrayal of violence
and the images of women. Discusses the images of police, cor-
rectional officers, and other criminal justice professionals.

CJ 820. Terrorism and Modern Societies (3). A broad
overview of the many theoretical approaches to the study of
terrorism and studies recurring issues regarding the inter-
pretation of various types of terrorism. Focuses not only on
theoretical concerns, but also on policy debates and the sub-
stantial ramifications of current events. Exposes students to
the range and complexity of both domestic and international
terrorism and also to different approaches to the study of ter-
rorism.

CJ 821. Hostage Negotiation (3). Comprehensive exami-
nation of theory, research, and practice in hostage negotia-
tion from the perspectives of both law enforcement and the behav-
ioral sciences. Exposes students to the range and complexity
of both domestic and international hostage negotiations with
the focus not only on theoretical concerns, but also on policy
debates and the substantive ramifications of current events.
Explores the need for more rigorous application of behavioral
science to the practice of crisis negotiation.

CJ 850 Workshop (1-6). Specialized instruction using vari-
able format in relevant criminal justice subjects. Repeatable
for credit up to 6 hours. Restricted to graduate students.

CJ 853. Crime Prevention through Environmental Design
(3). Examines the premises and concepts of Crime
Prevention through Environmental Design (CPTED), includ-
ing access control, natural surveillance, territorial reinforce-
ment, and activity support. Emphasizes case studies and field
research.

CJ 861. Police Administration (3). A comparative survey
and analysis of administrative philosophy, problems, proce-
dures, organizations, and functions of effective agency organ-
ization. Considers administrative skills related to operations
and personnel.

CJ 881. Internship (3-6). Supervised field placement in a
criminal justice agency. For 3 credits, the student works 192
hours and completes an academic project under the direction
of a faculty member. Prerequisites: 15 hours of graduate-level
criminal justice courses and consent of criminal justice agency
and internship coordinator.

CJ 882. Individual Directed Study in Criminal Justice (3-
6). Faculty directed readings and/or research in special areas
of interest in the field of criminal justice. Prerequisite: consent
of graduate coordinator and instructor.

CJ 891 Seminar in the Judicial Process (3). Reviews and
analyzes the functional and legal theories impacting the
administration and operation of the judicial system. Examines
actual practice as well as statutory and case law.

CJ 892. Criminal Justice and Community Action (3). An
overview of the literature on community organizations and
its assessment. Discusses consequences of varying degrees of
classroom disorganization, particularly in terms of the vari-
ous theories about crime and community organization.
Reviews crime prevention strategies which focus on commu-
nity organization. Students gain knowledge and practical
skills related to community organization as it relates to crime.
Students perform community organization assessments and
relate the outcome to related crime rates.

CJ 893. Seminar on the Application of Criminological
Theory (3). An in-depth analysis of the major theories of
 criminoology and of their importance to the criminal justice
process. Emphasizes the student’s development of a consist-
tent and valid frame of reference.

CJ 894. Proseminar in Criminal Justice (3). Familiarizes
students with critical issues facing the criminal justice system.
Reviews issues which face law enforcement, the courts, cor-
rrections, and the juvenile justice system, considering the
integrity of the entire criminal justice system.

CJ 895. Seminar in Policing (3). Familiarizes students on
such law enforcement topics as the historical development of
policing, the police role, occupational socialization, and prob-
lems of police work.

CJ 896. Seminar in Corrections (3). Focuses on the major
issues and dilemmas facing modern corrections in America.
Includes both institutional programs such as prisons and jails,
as well as alternatives in community settings, such as diver-
sion, probation, parole, halfway houses, work release centers,
and community corrections.

CJ 897. Advanced Research Methods (3). Cross-listed as
GERON 897 and P ADM 897. Advanced research course;
studies the selection and formulation of research problems,
research design, hypothesis generation, scale construction,
sampling procedures, and data analysis and interpretation.
Prerequisite: either CJ 597, ETH S 597, GERON 597, P ADM
597, or equivalent.

project under a faculty member’s direction. Project requires a
written report and defense of that report before a faculty com-
mittee. Must be an individual effort, not a group project.
Intended to be a major project or capstone activity completed
at the end of a student’s program of study. Prerequisite: grad-
uate-level research methods class.

CJ 899. Thesis (3-6). Prerequisite: consent of graduate
advisor.

Ethnic Studies (ETH S)  
Ethnic studies is an interdisciplinary program whose
primary focus is on developing skills to effectively
communicate across cultural boundaries. Also discus-
sed are the unique experiences of various United States
ethnic groups within the context of the larger
society. This discussion helps the students understand the
role of past experiences in influencing current race
and ethnic relations. Students from all backgrounds
engage in constructive debates and critical thinking
and work diligently with dedicated faculty to develop
strategies for harmonious living.

Major. The major in ethnic studies consists of at least
30 hours, including ETH S 100 and 210 and two of the
following: 540, 545, 548, and 725. Students must com-
plete 18 additional elective hours from ethnic studies in
consultation with their advisor. This major is cur-
tently suspended.

Minor. A minor in ethnic studies consists of at least
18 hours. The courses are to be approved by the stu-
dent’s advisor in the program.

Lower-Division Courses

ETH S 100. Introduction to Ethnic Studies (3). General
education introductory course. Orientation to the nature
and scope of ethnic studies. Emphasizes the unique nature of
the experience of ethnic groups in this country. Also studies
communication and its relationship to behavior in the United
States.

ETH S 210. Fundamentals of Cross-Cultural Com-
munications (3). General education introductory course. Examines
the effects of different cultures on language and methods of
communicating. Also studies communication and its relation-
ship to behavior.

ETH S 240. Ethnic Women in America (3). General edu-
cation further study course. Cross-listed as WOM S 240. An
examination of the lives, talents, and contributions made by
ethnic women to the American culture. Analyzes the miscon-
ceptions about ethnic women that have been generated and
perpetuated through the ages. To help people relate better to
ethnic women in America and understand their attitudes,
sensitivities, and emotions.

Upper-Division Courses

ETH S 320. Martin Luther King (3). Studies the life and
philosophy of the Rev. Dr. Martin Luther King, Jr. Emphasizes
Dr. King’s motivation, obstacles he faced, and the impact of
his life on the civil rights movement and race relations in the
United States.

ETH S 330. Ethnic America, ca 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.

ETH S 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: ETH S 100; 210, or instructor’s
consent.

ETH S 332. The Native American (3). General education
further study course. Examines contemporary issues facing the
Native American focusing on the Osage tribe. Prerequisites:
ETH S 100; 210, or instructor’s consent.

ETH S 333. Issues in the Chicano Community (3). Gen-
eral 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: ETH
S 100, 210, or instructor’s consent.

ETH S 334. Ethnic America in the Twentieth Century
(3). General education further study course. Cross-listed as HIST
333. An in-depth study of the ethnic experience in the twentieth
century. Major historical topics include identity forma-
tions; inter-generational conflict; class differentiation and
social mobility; the politics of ethnicity, resistance, and civil
rights movements; the racialization of immigration laws; and
transnationalism.

ETH S 350. Workshop (1-4). Focuses on the nature and
scope of ethnic studies. Emphasizes the unique nature of the
experiences of specific American ethnic groups.

ETH S 355. Special Populations in the Criminal Justice
System (3). Cross-listed as CJ 355. General education further
study course. Examines the role of women and minorities as
employees of the criminal justice system Explores the role
of women, minorities, juveniles, and elderly citizens as individu-
als who commit crime and are apprehended and sanctioned
by the criminal justice system. Considers the unique chal-
enges of each of the four identified populations, including
their interactions with law enforcement, the judiciary, and
corrections.

ETH S 360. Dealing with Diversity (3). General education
further study course. Discusses the pluralistic nature of U.S. soci-
ety. Equips students with skills to live and work within a
diverse society, with particular attention to the global com-
munity.

ETH S 361. Prominent Ethnic People in the Making of
America (3). General education further study course. Explores,
compares, and contrasts ethnic thought and processes for
social, economical, and political reform. Delves into the social
perceptions of prominent American ethnic people as por-
trayed in popular novels, biographies, autobiographies, and
rhetoric, etc. Prerequisite: ETH S 100.

ETH S 370. The Black Experience in America (3). Exam-
ines the status of blacks in American society. Emphasizes the
status of blacks in the current and historical social, economic,
and political framework of this country. Prerequisites: ETH S
100, 210, or instructor’s consent.

overview of three tribes from different parts of the U.S. Cov-
ers historical background, discussion of governments, and
information about culture and prominent individuals
through lecture, discussion, and movies.

ETH S 381. Special Topics (1-3). Detailed study of topics in
ethnic studies with particular emphasis established according to
the instructor’s expertise. Prerequisite: ETH S 100.
> ETH S 390. Asian American Contemporary Issues (3). General education further study course. Explores current trends and issues that affect Asian Americans in the U.S. Includes the history of Asian American immigration, education, work, violence, and family.

ETH S 400. The Black Child (3). Examines the historical impact of the black experience on black childhood, growth, and development. Emphasizes the social, educational, and psychological theories, perspectives, and interventions applied to black childrearing. Exposes student to good practices at home and 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: ETH S 100, 210, or equivalent, or instructor’s consent.


> ETH S 410. The African American Male (3). General education further study course. Examines the impact of racism on the role and lifestyle of the African American male in American society. Prerequisites: ETH S 100, 210, or instructor’s consent.

ETH S 481. Cooperative Education (1-4). Allows the student to examine the impact of minority status in the work environment. Examines interpersonal interactions, communication, and acceptance in and adjustment to the multicultural work environment. Offered Cr/NC only. Prerequisite: program consent.

ETH S 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 required to devote 16 hours per month for three months with a neighborhood-based agency. WSU will make a 3-hour tuition (in-state rate) gift to the student upon acceptance to the course. Prerequisites: 2,000 GPA; must be currently enrolled in at least 3 hours in addition to ETH S 491; ETH S 100 or 210 or instructor’s permission.

Courses for Graduate/Undergraduate Credit

ETH S 501. Integrity in Public Service (3). Cross-listed as CJ 501, GERON 502, PADM 501. Exposes the student to basic principles of personal and professional integrity and how those principles apply to their daily life as a member of the community and as an employee of a government or social service agency. Employs a case study method, using cases and examples from a wide range of government and non-profit agency experiences. Students become aware of the moral and ethical issues which may arise in their professional and personal lives; begin to develop critical thinking and analytical skills regarding ethical behavior; and become more personally and professionally responsible. Prerequisite: junior- or senior-level or instructor’s permission.

> ETH S 512. Aging and Ethnicity (3). Cross-listed as GERON 512. General education further study course. Addresses the needs of students interested in (1) providing services to; (2) exploring the “issues” of; (3) becoming familiar with the rights of; (4) learning the legal procedures for resolving specific problems of; and (5) offering practical solutions for the difficulties encountered by ethnic older persons. Prerequisites: ETH S 100, GERON 100, SOC 111, or instructor’s consent.

> ETH S 532. Women in Ethnic America (3). General education further study course. Cross-listed as HIST 532 and WOM S 532. An in-depth, thematic understanding of the historical experiences of women of color across space and time in U.S. history. Employing a female-centered framework of analysis, course probes the intersections of race, class, gender, and sexuality in women’s lives.


ETH S 580. Individual Projects (3). Student conducts independent research related to a specific ethnic group. Prerequisite: 50 hours of Wichita State credit or program consent. Repeatable for a total of 6 hours.


ETH S 725. Concepts of Cross-Cultural Communications (3). Theoretical survey of the concepts of cross-cultural communications. An in-depth examination of the rationale used to evaluate different ethnic groups’ language and behavior. Course provides a conceptual understanding of special implications and necessary adaptations of communications to, between, and among diverse ethnic groups in our society.

ETH S 750. Workshop (1-4). Focuses on the nature and scope of ethnic studies. Emphasizes the unique experiences of ethnic groups in this country.

Gerontology (GERON)

The gerontology program offers the Bachelor of Science (suspended) and Master of Arts degrees in gerontology. The instructional mission of degree programs in gerontology 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, and institutions.

The undergraduate major in gerontology, which meets the standards of the Association for Gerontology in Higher Education and follows the association’s suggested format, consists of 45 hours and leads to the Bachelor of Science degree, described below.

Students who plan to graduate with a BS in gerontology also must satisfy Fairmount College requirements (including the foreign language requirement) and the University requirements for the Bachelor of Science degree.

Required gerontology courses. For most students, a 24-hour core of gerontology course work is required:

Gerontology courses

<table>
<thead>
<tr>
<th>Course</th>
<th>Hrs.</th>
</tr>
</thead>
<tbody>
<tr>
<td>GERON 100, Introduction to Gerontology</td>
<td>3</td>
</tr>
<tr>
<td>GERON 401, Aging, Work, and Retirement</td>
<td>3</td>
</tr>
<tr>
<td>GERON 404, Psychology of Aging</td>
<td>3</td>
</tr>
<tr>
<td>GERON 501, Field Experience</td>
<td>6</td>
</tr>
<tr>
<td>GERON 513, Sociology of Aging</td>
<td>3</td>
</tr>
<tr>
<td>GERON 518, Biology of Aging</td>
<td>3</td>
</tr>
<tr>
<td>GERON 560, The Aging Network</td>
<td>3</td>
</tr>
</tbody>
</table>

Students who have professional work experience in aging may, with faculty approval, substitute 3 hours of elective credit for the second 3 hours of field experience.

Required research courses. Gerontology majors also complete 3 hours in approved statistics courses and 3 hours in an approved research methods course.

Elective courses. Students will enroll in 15 hours of elective course work in gerontology, including at least one course from each of the following four clusters.

Cluster I. Humanities. GERON 514, Anthropology of Aging; GERON 515, Women and Aging; PHIL 327, Philosophy of Health Care.

Cluster II. Behavioral/Social Science. GERON 512, Aging and Ethnicity; GERON 520, Family and Aging; GERON 715, Adult Development and Aging.

Cluster III. Physiology/Health. GERON 537, The Social Consequences of Disability; GERON 550M, Long Term Care and Aging; HS 331, Principles of Dietetics and Nutrition; SOC 338, Medical Sociology.

Cluster IV. Applied Social Science. SCWK 300, Understanding Social Welfare; COMM 325, Speaking in Business and the Professions; MGMT 360, Management and Organizational Behavior; POLS 321, Introduction to Public Administration.

Minor. The minor in gerontology consists of at least 15 hours of gerontology courses, including GERON 100 and 560, and 9 hours selected from the following: GERON 401, 404, 513, and 518.

Note: For other relevant/required courses, see P ADM 710, 725, 745, 775, and 865; NURS 789; ACCT 800; MKT 800; PHS 804, 812, 818, 822, 826, 834, and 858; and PSY 813.
Lower-Division Courses

GERON 100. Introduction to Gerontology (3). A multidisciplinary overview of the field of aging, with attention to cultural, social, psychological, biological, and economic factors which influence the circumstances of the elderly.

GERON 150. Workshop in Gerontology (1-3). Provides specialized instruction, using a variable format in a gerontologically relevant subject. Repeatable for credit.

Upper-Division Courses

GERON 401. Aging, Work, and Retirement (3). Examines the impact of population aging upon the nation; income and poverty among the elderly; retirement and work choices; the impact of lifetime income, Social Security, Medicare, private pensions, and health on the income security of the elderly. Prerequisite: GERON 100.

GERON 402. Computer and Statistical Applications (3). Cross-listed as CJ 402, ETH S 402, and PADM 402. Introduces computer and statistical applications used in public agencies. Emphasizes availability and use of data sources, quantitative decision-making techniques, and interpretation of statistical analyses. Prerequisite: MATH 111 or equivalent.


GERON 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/NoCr only. Prerequisites: GERON 100 and instructor’s consent.

Courses for Graduate/Undergraduate Credit

GERON 501. Field Experience (3-6). As supervised field experience in an agency or organization planning or providing services to older people, individually designed to enhance each student’s skills and knowledge of the aging service network. Repeatable for 6 hours credit. Prerequisite: 12 hours of gerontology credit and instructor’s consent.

GERON 502. Integrity in Public Service (3). Cross-listed as CJ 502, ETH S 501, and PADM 501. Explores the student to basic principles of personal and professional integrity and how those principles apply to their daily life as a member of the community and as an employee of a government or social service agency. Employs a case study method, using cases and examples from a wide range of government and non-profit agency experiences. Students become aware of the moral and ethical issues which may arise in their professional and personal lives; begin to develop critical thinking and analytical skills regarding ethical behavior; and become more personally and professionally responsible. Prerequisite: junior- or senior-level or instructor’s permission.

GERON 512. Aging and Ethnicity (3). Cross-listed as ETH S 512. General education further study course. 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 elders. Prerequisites: ETH S 100, GERON 100, SOC 111 or instructor’s consent.

GERON 513. Sociology of Aging (3). Cross-listed as SOC 513. Analysis of the social dimensions of old age, including changing demographic structure and role changes and their impact on society. Prerequisite: SOC 111.

GERON 514. Anthropology of Aging (3). Cross-listed as ANTHR 514. An anthropological analysis of the latter stages of the life cycle with historical and cross-cultural perspectives.

GERON 515. Women and Aging (3). Introduces students to issues in aging that are unique to women, to women’s diverse developmental patterns, and to research methods appropriate for studying aging women and their life experiences. Topics include physical change, role transitions, and adaptation from a lifespan perspective.

GERON 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.

GERON 520. Family and Aging (3). Cross-listed as SOC 520. An analysis of the families and family systems of older people. Emphasizes demographic and historical changes, widowhood, caregiving, and intergenerational relationships as these relate to the family life of older people. Prerequisites: GERON 100, SOC 111, or junior standing.

GERON 550. Selected Topics in Gerontology (1-6). Study in a specialized area of gerontology with the focus upon pre-professional programs and current issues in the field of aging. Emphasizing knowledge and skills in applied areas of gerontology as they relate to an emerging area of research and application. Repeatable up to 6 hours. Prerequisite: instructor’s consent.

GERON 551. Workshop (3). Specialized instruction using a variable format in relevant gerontology subjects. Repeatable for credit up to 6 hours.

GERON 560. The Aging Network (3). An overview of federal, state, and local programs concerned with planning, managing, or direct delivery of services to the older population. Prerequisite: 9 hours of gerontology credit or instructor’s consent.


GERON 651. Dispute Resolution (3). Cross-listed as CJ 651, ETH S 651, and PADM 651. Examines a range of topics including causation, typologies, communications, mediation, arbitration, and other dispute resolution techniques. Includes criminal and victim mediation and both inter-group and inter-organization relations and dispute resolution techniques. Analyzes case studies.

GERON 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.

GERON 700. Grant Proposal Preparation (3). Concerned with the process of research and project proposal development, including response to published guidelines, project planning, and proposal development and submission. Examines grant funding, including types of funding sources and their purposes and methods and processes of proposal evaluation. Students write and evaluate proposals.

GERON 702. Research Methods (3). Cross-listed as CJ 702, ETH S 702, PADM 702. Acquaints students with applied public policy research methods. Emphasizes locating, collecting, appraising, and utilizing both primary and secondary sources of data of the type used in policy, planning, and administrative research. Students must complete several short research projects.

GERON 715. Adult Development and Aging (3). Explores theory and research related to the development of adults and to the aging process. Utilizing an interactive, interdisciplinary perspective, the course examines the process of change, transition, growth, and development across the adult lifespan. Prerequisites: GERON 798 or 6 hours of gerontology.

GERON 720. Independent Readings in Gerontology (1-3). Directed study in a specialized topic in gerontology. Repeatable up to 6 hours. Prerequisite: 12 hours of gerontology credit and departmental consent.
GERON 750. Workshop in Gerontology (1-3). Provides specialized instruction, using a variable format in a geronologically relevant subject. Repeatable for credit.

GERON 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. Prerequisites: 12 hours of gerontology and instructor’s consent.

GERON 798. Multidisciplinary Perspectives on Aging (3). Introduction to the advanced study of the process of aging from a multidisciplinary point of view. Not open to students with an undergraduate major or minor in gerontology. Prerequisite: admission to Graduate School.

Courses for Graduate Students Only

GERON 801. Field Research in Gerontology (3). An examination of the methods of participant observation and interview as approaches to understanding aging and the aged. Students gain practical experience in these methods through individual fieldwork projects. Prerequisite: GERON 798, 12 hours of gerontology credit, or instructor’s consent.

GERON 802. Quantitative Methods for Public Sector Professionals (3). Cross-listed as CJ 802, PADM 802. Uses standard microcomputer statistical software and analysis to introduce statistics and quantitative analysis for organizational and policy decision making. Emphasizes the application of statistics and writing with quantitative evidence to real public sector policy questions. Assumes little or no background in statistics and software applications. Prerequisite: either CJ 702, GERON 702, or PADM 702.

GERON 803. Program Planning and Evaluation in Aging Services (3). Examines the process of developing service programs in response to a defined community need in aging services. Includes assessment of need; identification and development of community resources; and development and evaluation of program goals, objectives, and methods of implementation. Prerequisite: 12 hours of gerontology or instructor’s consent.

GERON 804. Aging Programs and Policies (3). Analyzes and evaluates programs and policies related to aging and old age. Emphasizes the importance of social values and historical context for understanding current policies, programs, and practices. Prerequisite: GERON 798, 12 hours of gerontology, or instructor’s consent.

GERON 810. Advanced Gerontology Internship (3-6). Integrates academic gerontology and practical experience through supervised placement of students in an agency or organization engaging in planning, administering, or providing direct services to older people. Internship requires 200 contact hours for each 3 hours of credit. An internship paper is required. Prerequisites: 12 hours of gerontology credit and instructor’s consent prior to registration.

GERON 850. Selected Topics in Gerontology (1-6). Advanced study in a specialized area of gerontology focusing upon professional programs and current issues in the field of aging. Emphasizes knowledge and skills in applied areas of gerontology as they relate to an emerging area of research and application. Repeatable up to 6 hours. Prerequisite: instructor’s consent.

GERON 897. Advanced Research Methods (3). Cross-listed as CJ 897, PADM 897. Advanced research course; studies the selection and formulation of research problems, research design, hypothesis generation, scale construction, sampling procedures, and data analysis and interpretation. Prerequisite: either CJ 597, ETH S 597, GERON 597, PADM 597, or equivalent.

GERON 898. Applied Research Paper (1-3). Original research project under a faculty member’s direction. Project requires a written report and defense of that report before a faculty committee. Must be an individual effort, not a group project. Intended to be a major project or capstone activity completed at the end of a student’s program of study. Prerequisite: graduate-level research methods class. Repeatable.

GERON 899. Thesis (1-3). Repeatable, but total credit hours counted toward degree shall not exceed 4 hours.

Computer Science (CS)

The Department of Computer Science offers a broad and flexible curriculum that emphasizes core computer science technologies and their applications.

Students may earn either the Bachelor of Science (BS) or the Bachelor of Arts (BA) degree in computer science. Both degrees provide in-depth preparation for professional work in business, industry, or government. The BS degree also provides a good preparation for graduate study in computer science or related areas.

Students must take a minimum of twelve credit hours of computer science core courses or advanced computer science electives in residence at Wichita State University to qualify for a computer science Bachelor of Science or Bachelor of Arts degree.

Major: Bachelor of Science (BS)

1. Computer science: The following computer science courses are required: 210, 211, 300, 312, 320, 410, 411, 510, 540 and 560. This mix of theoretical and practical courses establishes a strong foundation for advanced courses in the discipline.

In addition, students complete 15 hours of required courses in advanced electives in computer science. These 15 hours provide students with a depth and breadth of knowledge, beyond what they receive in core courses, by exposing them to advanced topics in some of the major areas of computer science. Advanced courses fall in seven areas: artificial intelligence, software engineering, theoretical computer science, computer systems, computer hardware, information systems, and symbolic and numeric computation.

The choice of advanced electives should span at least three of these areas.

2. Mathematics: The following required mathematics courses add strength to the major in computer science: MATH 242, MATH 243, and STAT 460.

3. Science: The science requirement for the BS degree provides a solid grounding in scientific studies, including the concepts of the scientific method and the practical skills acquired in a two-semester lab sequence.

Choose one of the following options:

A. BIOL 210 (4)
   BIOL 211 (4)
   Any one of the following:
   CHEM 111 (5)
   GEOL 111 (4)
   PHYS 213 (5)
   PHYS 313 (4)

B. PHYS 313 (4)
   PHYS 315 (4)
   PHYS 314 (4)
   PHYS 316 (4)
   ANTHR 101 (3) or BIOL 210 (4)

C. CHEM 111 (5)
   CHEM 112 (5)
   ANTHR 101 (3) or BIOL 210 (4)

D. GEOL 111 (4)
   GEOL 320 (3)
   ANTHR 101 (3) or BIOL 210 (4)
   One additional course chosen from any option
   PHYS 213 (5)
   PHYS 214 (5)
   ANTHR 101 (3) or BIOL 210 (5)

4. Engineering: A designated ECE course that introduces students to computer organization.

5. Additional required course for CS majors: PHIL 354, Ethics and Computers, gives students an ethical context for their professional work.

Major: Bachelor of Arts (BA)

1. Computer science: The following required core computer science courses provide a good foundation for the discipline: 105, 210, 211, 300, 312, 320, 410, 411, 510, 540.

2. Mathematics: The following required mathematics courses add strength to the major in computer science: MATH 111, MATH 144, and STAT 370.

3. Engineering: A designated ECE course that introduces students to computer organization.

4. Additional required course for the major: PHIL 354, Ethics and Computers, gives students an ethical context for their professional work. ENGL 210, Composition: Business, Professional, and Technical Writing, improves students’ workplace communication.

5. Sequence electives: In addition, students complete 15 hours of sequence electives. These courses can be chosen from fields such as computer science information systems, software engineering, systems analysis, or some application area such as business administration. Other choices are also possible. Students should choose sequence electives in consultation with and with the approval from the departmental academic advisor.
Minor
The minor provides a valuable addition to other majors and can help a student demonstrate ability in the computer science discipline. Students complete a required minimum of 18 hours of computer science courses. These 18 hours must include CS 210, CS 211, CS 300, and two CS courses numbered above 300. CS 350 workshops are not counted toward meeting the minor requirements. Also, students may count no more than one 497 course toward the minor.

Example Schedule for BS in Computer Science

Students must complete ENGL 100 or ENGL 101 and MATH 111, College Algebra, with a C or better, or have equivalent CLEP or transfer credit before taking any computer science courses toward the BS degree.

Freshman Year
(fewer than 30 credit hours earned)
ENGL 101, College English I..........................3
MATH 242, Calculus I.................................5
First Natural Science course.........................4-5
COMM 111, Public Speaking..........................3

Second Semester
ENGL 102, College English II........................3
CS 210, Introduction to Computer Science...........4
CS 211, Problem Solving and Programming in C........4
MATH 243, Calculus II..............................5

Sophomore Year
(30-59 credit hours earned)
CS 300, Data Structures and Algorithms I............4
CS 320, Discrete Structures in Computer Science....4
Second Natural Science course......................3-5
American Government (HIST 131 or 132 or POLS 121) (HIST is Humanities; POLS is Social and Behavioral Sciences)..............3

Second Semester
CS 312, Assembly Language and Systems.............3
CS 410, Programming Paradigms........................3
CS 411, Object Oriented Programming................3
STAT 460, Elementary Probability and Mathematical Statistics..........................3
Third Natural Science course.....................3-5

Junior Year
(60-89 credit hours earned)
ECE Designated Hardware Course....................4
CS 510, Programming Language Concepts.............3
Humanities Introductory course (PHIL 125)........3
Fine Arts Introductory course........................3
Social and Behavioral Sciences Introductory course........3

Second Semester
ENGL 102, College English II........................3
CS 210, Introduction to Computer Science...........4
CS 211, Problem Solving and Programming in C........4
Foreign language........................................5

Sophomore Year
(30-59 credit hours earned)
CS 300, Data Structures and Algorithms I............4
CS 320, Discrete Structures in Computer Science....4
MATH 144, Business Calculus..........................3
Foreign language.......................................5

Second Semester
CS 312, Assembly Language and Systems Programming..........................3
STAT 370, Elementary Statistics........................3
Foreign language.......................................5
Natural Science Introductory course and lab (biology or biological anthropology).........................4

Senior Year
(90 credit hours earned)
Advanced CS elective..................................3
Humanities Elective......................................3
Issues and Perspectives course or Fourth Natural Science course or elective (as needed)..................3
Elective..................................................3

Second Semester
CS 560, Data Structures and Algorithms II........3
Advanced CS elective..................................3
Advanced CS elective..................................3
Issues and Perspectives course or Fourth Natural Science course or elective (as needed)..................3
Elective..................................................3

Choice depends on American Government selection. If HIST 131 or 132 is taken to fulfill the American Government requirement, this choice needs to be a Social and Behavioral Science course. If POLS 121 is taken to fulfill the American Government requirement, this choice can be an elective course.

Example Schedule for BA in Computer Science

Students must complete ENGL 100 or ENGL 101 and MATH 111, College Algebra, with a C or better, or have equivalent CLEP or transfer credit before taking any computer science courses other than CS 105.

Freshman Year
(fewer than 30 credit hours earned)
ENGL 101, College English I..........................3
MATH 111, College Algebra.............................3
CS 105, An Introduction to Computers and their Applications..........................3
COMM 111, Public Speaking............................3
American Government (HIST 131 or 132 or POLS 121) (HIST is Humanities; POLS is Social and Behavioral Sciences)..............3

Second Semester
CS 312, Assembly Language and Systems.............3
CS 410, Programming Paradigms........................3
CS 411, Object Oriented Programming................3
STAT 460, Elementary Probability and Mathematical Statistics..........................3
Third Natural Science course.....................3-5

Junior Year
(60-89 credit hours earned)
ECE Designated Hardware Course....................4
CS 510, Programming Language Concepts.............3
Humanities Introductory course (PHIL 125)........3
Fine Arts Introductory course........................3
Social and Behavioral Sciences Introductory course........3

Second Semester
ENGL 102, College English II........................3
CS 210, Introduction to Computer Science...........4
CS 211, Problem Solving and Programming in C........4
Foreign language........................................5

Sophomore Year
(30-59 credit hours earned)
CS 300, Data Structures and Algorithms I............4
CS 320, Discrete Structures in Computer Science....4
MATH 144, Business Calculus..........................3
Foreign language.......................................5

Second Semester
CS 312, Assembly Language and Systems Programming..........................3
STAT 370, Elementary Statistics........................3
Foreign language.......................................5
Natural Science Introductory course and lab (biology or biological anthropology).........................4

Senior Year
(90 credit hours earned)
Advanced CS elective..................................3
Humanities Elective......................................3
Issues and Perspectives course or Fourth Natural Science course or elective (as needed)..................3
Elective..................................................3

Second Semester
CS 560, Data Structures and Algorithms II........3
Advanced CS elective..................................3
Advanced CS elective..................................3
Issues and Perspectives course or Fourth Natural Science course or elective (as needed)..................3
Elective..................................................3

Choice depends on American Government selection. If HIST 131 or 132 is taken to fulfill the American Government requirement, this choice needs to be a Social and Behavioral Science course. If POLS 121 is taken to fulfill the American Government requirement, this choice can be an elective course.

Programming Courses
No credit toward BS Degree in Computer Science
CS 201 FORTRAN Programming (3). 2R; 2L. Fundamentals of computer programming in FORTRAN and their application to problems. No credit toward the BS in computer science. Prerequisites: ENGL 101 and MATH 111 or 112, or equivalents, with a C or better; or departmental consent.
CS 203. Visual BASIC (3). Fundamentals of computer programming in Visual BASIC and their application to problems. No credit toward the BS in computer science. Prerequisites: ENGL 101 and MATH 111 or 112, or equivalents, with a C or better; or departmental consent.

CS 205. COBOL Programming (3). 2R; 2L. Fundamentals of computer programming in COBOL and their application to problems. No credit toward the BS in computer science. Prerequisites: ENGL 101 and MATH 111 or 112, or equivalents, with a C or better; or departmental consent.

CS 206. BASIC Programming (3). 2R; 2L. Fundamentals of computer programming in BASIC and their application to problems. No credit toward the BS in computer science. Prerequisites: ENGL 101 and MATH 111 or 112, or equivalents, with a C or better; or departmental consent.

CS 207. C Programming (3). 2R; 2L. Fundamentals of computer programming in C and their application to problems. No credit toward the BS in computer science. Prerequisite: C or better in a high-level programming language course, or departmental consent.

CS 217. C++ Programming (3). 2R; 2L. Fundamentals of object-oriented programming in C++ with applications to problems. No credit toward the BS in computer science. Prerequisite: CS 207 or 211 with a C or better or departmental consent.

Upper-Division Course

CS 303. Advanced Visual BASIC (3). Advanced concepts of Visual BASIC, particularly database topics including ADO (ActiveX Data Objects), ODBC, OLE, and OLE automation. Special topics of current interest in computer science. Prerequisite: departmental consent. Offered Cr/NCr only.

Lower-Division Courses

>CS 105. An Introduction to Computers and their Applications (3). 2R; 3L. General education introductory course. A computer literacy course introduces students to the Internet and other networks, multimedia, CD ROM, historical development of the computer, uses of the computer in business, industry, government, education, and the home; hardware components of a computer system; data representation; systems analysis and design; and issues of ethics posed by technology. The laboratory section includes hands-on experience with the Internet, Windows, and microcomputer applications packages such as word processors and spreadsheets. No credit granted toward the BS in computer science. Prerequisites: some familiarity with typewriter keyboard and minimal typing skills.

CS 150. Workshop (1-5). Short-term courses focusing on new computer techniques. Repeatable for credit. Prerequisite: departmental consent.

>CS 210. Introduction to Computer Science (4). 3R; 2L. 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. Prerequisites: ENGL 101, MATH 111, 112 or equivalents with a C or better in each.

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 high-level language program. Prerequisites: ENGL 101, MATH 111, 112 or equivalents with a C or better in each.

Upper-Division Courses

>CS 300. Data Structures and Algorithms I (4). 3R; 2L. General education further study course. Basic data structures and algorithms. Emphasizes problem solving, algorithm design and analysis, and program implementation. Prerequisites: CS 203 or 300, with a C or better.

CS 312. Assembly Language and Systems Programming (3). 3R; 1L. Fundamentals of assembly language programming and their application to problems. Emphasizes analyzing problems, designing solutions, and expressing them in the form of an assembly language program. Prerequisites: CS 211 and 217, each with a C or better.

CS 320. Discrete Structures in Computer Science (4). Deals with discrete structures relevant to computer science, including propositional and predicate logic, proof techniques, recursion, induction, and analysis of algorithms; sets and combinatorics; counting principles, permutations and combinations, the binomial theorem; partially ordered relations, equivalence relations; functions: one-to-one onto functions; matrices; graphs and trees; elementary graph algorithms; finite automate and regular languages; context free grammars and languages. Prerequisites: CS 210 and 211, each with a C or better.

CS 350. Workshop (1-5). Short-term courses with special computer science emphasis. Repeatable for credit. No credit toward the major or minor in computer science. Prerequisite: departmental consent.

CS 365. Introduction to Computer Graphics (3). 2R; 2L. Introduces interactive computer graphics, presenting the basic concepts of the field. Includes geometry of computer graphics, graphics primitives, twodimensional and three-dimensional representation, transformation, data structures, windowing and clipping, hidden lines, and surfaces and shading. Extensive use of computers provides practical experience. Prerequisite: CS 300.

CS 410. Programming Paradigms (3). 3R; 1L. Exposure to computer programming in various languages. Emphasizes programming rather than theory. Prerequisites: CS 300 and 320 with a C or better in each.

CS 411. Object-Oriented Programming (3). 3R; 1L. Concepts of object-oriented programming. Includes data abstractions, classes and objects, methods, inheritance, polymorphic variables, dynamically-bound method calls, and data encapsulation. Gives programming experience in an object-oriented programming language. Prerequisites: CS 300 with a grade of C or better.

CS 444. Introduction to Unix (3). (R); 1L. The objective of this course is to learn the fundamentals of the Unix operating system. Topics covered include the Unix file system, essential commands and utilities of Unix, and shell programming. Prerequisite: any high-level programming language with a grade of C or better.

CS 465. Oracle Development Environment (3). 3R; 1L. Oracle is the most widely used database management system in the world. This course will cover basic relational database concepts; the SQL query language; PL/SQL; object creation, including indexes, tables, triggers, and stored procedures; Oracle Forms, SQLLoader in the transition of legacy systems; and web-enabled applications. Students work with real-life projects. Prerequisite: CS 211 with a C or better or departmental consent.

CS 481. Cooperative Education in Computer Science (1-3). Provides a field placement that integrates theory with a planned and supervised professional experience designed to complement and enhance the student’s academic program. Individualized programs must be formulated in consultation with and approved by appropriate faculty sponsors. Prerequisite: department consent. Offered Cr/NCr only.

CS 497. Special Topics (1-3). 1R; 1L. Special topics of current interest in computer science. Prerequisite: departmental consent.

CS 498. Individual Projects (2-3). Repeatable for a total of 6 hours of credit. Graded S/U only. Prerequisite: departmental consent.

Courses for Graduate/Undergraduate Credit

CS 501. Numerical Programming Techniques (3). 2R; 2L. Astudy of the programming techniques used to solve nonlinear equations, interpolate, integrate, and solve systems of linear equations. Discusses the implications of finite precision floating point arithmetic. Also covers techniques for initial and boundary value problems in ordinary differential equations. Selected algorithms are implemented on the computer. Prerequisites: MATH 243 and CS 300 with grades of C or better.

CS 510. Programming Language Concepts (3). Theoretical concepts in the design and use of programming languages, including scope of declarations, storage allocation, subroutines, modules, formal methods for the description of syntax, and semantics. Introduction to the concepts of different styles of languages—imperative languages, functional languages, logic languages, object-oriented languages, etc. Prerequisite: CS 410 with a C or better.

CS 560. Data Structures and Algorithms I (3) 3R; 1L.
Design and analysis of algorithms and proof of correctness.
Analysis of space and time complexities of various algorithms
including several sorting algorithms. Hashing, binary search
trees, and height balanced trees. Algorithm design techniques
including divide and conquer, greedy strategies, and dynam-}

ic programming. Elementary graph algorithms. Prerequisites:
CS 300, CS 320; and Math 243 and STAT 460 with a C or better
in each.

CS 612. Systems Programming (3) 2R; 2L.
A study of system software including assemblers, disassemblers,
microprocessors, link editors, loaders, language translators, and
debuggers. Practical experience in building system software
through programming laboratory exercises. Prerequisites: CS
300 and 312 with a C or better.

CS 615. Compiler Construction (3) 2R; 2L.
First compiler course for students with a good background in
programming languages and sufficient programming experience. Covers
overall design and organization of compilers and interpreters,
lexical and syntax analysis, construction of symbol tables,
scope analysis, type checking, error recovery, run-time
organization, intermediate code and its interpretation, code
generation, and optimization. Project-oriented course.
Focuses practical experience gained through the design
and implementation of a simplified but non-trivial compiler
for a strongly typed, procedural language. The implementation
is carried out in a modern systems programming environ-
ment. Prerequisite: CS 510 or equivalent with a C or better.

CS 632. Symbolic Computation with LISP (3).
An in-depth study of LISP as a functional programming language
with its application to artificial intelligence, polynomial com-
putation, and theorem proving. Complete substantial pro-
gramming projects in LISP. Prerequisites: Math 243 with a C
or better; and CS 300 and CS 320 with a B or better in each;
or CS 410 or CS 560 with a C or better; or departmental consent.

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
with a C or better or instructor’s consent.

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 Web site that incorporates static text and the
dynamic capabilities of the Web. Learn how to create an inter-
active Web site through the use of CGI and Java programming
and how to interconnect a Web site to databases and generate
images on the fly. Java portion covers a wide range of Java
language and the Applet interface and utilities. Prerequisite:
CS 300 with a C or better or instructor’s consent.

CS 665. Introduction to Database Systems (3).
Fundamental aspects of database systems, including conceptual
database design, entity-relationship modeling, and object-orien-
ted modeling; the relational data model and its founda-
tions, relational languages, and SQL (Structured Query Lan-
guage); logical database design, dependency theory, and nor-
mal forms; physical database design, file structures, indices,
and decomposition; integrity, security, concurrency control,
recovery techniques, and optimization of relational queries.
Prerequisite: CS 300 and 320 with a C or better.

CS 680. Introduction to Software Engineering (3) 2R;
2L.
An introduction to the body of knowledge, presently available tools and
current theories and conjectures regarding the process of program development.
Studies these topics from several different viewpoints, ranging from the individual
program statement to a large programming project. Prere-
quisites: CS 300 and 410, each with a C or better.

CS 684. Applications Systems Analysis (3).
A study of the methods for analyzing business systems problems and other
large-scale applications of the computer. At the crossroads
of computer technology, management science and human rela-
tions, systems analysis is the keystone in the education of
the well-trained computer applications analyst. Includes systems
design, cost benefit analysis, data base design, distributed
processing, project management, and documentation. Per-
quisite: CS 300 with a C or better.

CS 690. Information Systems Engineering (3).
Study of information systems design techniques, issues of systems
evolution, project management, engineering design, various
views of information systems and software, and formal
design approaches. Covers structured analysis and design
approach, object-oriented approach, software design, data-
based design, rule modeling, user interface design, perfor-
mance evaluation issues relative to software design, systems
evolution aspects from a software maintenance perspective,
project management techniques, and information systems
engineering. Prerequisite: CS 300 with a C or better.

CS 697. Selected Topics (1-3).
Selected topics of current interest. Repeatable for credit with departmental consent.
Prerequisite: departmental consent.

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 determinis-
tic and nondeterministic, and concepts of decidability, com-
putability, and formal language theory. Prerequisite: CS 320 or
equivalent with a C or better.

CS 742. Computer Communication Networks (3) 2R;
2L.
Introduction to network programming for the internet
environment including the basic concepts of TCP/IP, client-
server paradigm, programming of clients, and various types
of servers, remote procedure calls, concurrency manage-
ment, and interconnection techniques. Emphasizes the
design principles that underlie implementation of practical
applications. Prerequisite: CS 300 with a C or better or
departmental consent.

CS 750. Workshop in Computer Science (1-5).
Short-term courses with special focus on introducing computer science
concepts. Repeatable for credit. Prerequisite: departmental consent.

CS 771. Artificial Intelligence (3).
Heuristic versus algo-
rithmic methods, principles of heuristic approach, and cogni-
tive processes. Also covers objectives and methods of artificial
intelligence research and simulation of cognitive behavior.
Includes a survey of appropriate examples from various areas
of artificial intelligence research. Prerequisites: CS 300 and 320
with a grade of C or better in each.

Planning, construction, and
application of expert systems. Discusses major aspects of
expert systems; illustrates with various examples, including
data representation, knowledge bases, inference engines, user
interfaces, explanatory facilities, metarules, and dealing with
uncertainty. Introduces basics of a production system language.
Prerequisite: CS 410 with a C or better or instructor’s consent.

CS 781. Cooperative Education in Computer Science (1-
3).
Practical experience in a professional environment to com-
plement 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/NC only. Prere-
quisites: departmental consent and graduate GPA of 3.00 or above.

CS 796. Individual Projects (1-3).
Assigns beginning grad-
uate and mature undergraduate students to pursue individual
projects of current interest in computer science.
Graded S/U only. Prerequisite: departmental consent.

Courses for Graduate Students Only

CS 805. Compiler Theory (3).
Theory of compilation of pro-
gramming languages. Finite state machines and logical anal-
ysis. Context-free languages and recognizers. Theory of pars-
ing, including recursive-descent, top-down, and bottom-up
parsers. Formal description of semantics and code generation.
Code optimization. Compiler-compilers. Not open for credit
to those with previous credit for CS 811. Prerequisites: CS 510
and 720.

CS 810. Programming Languages: Advanced Concepts
(3).
An advanced study of programming language structures
and design. Data and control structures and their abstraction.
 Concurrent programming structures. Formal specifications
of syntax and semantics, including models for establishing pro-
gram correctness. Criteria for language design. Prerequisites:
CS 510 and 720.

CS 817. Advanced Java Technology (3).
Covers advanced
features of the Java language, the underlying implementation
technology (Java Virtual Machine), and extensions of the Java
technology. Includes concurrent object-oriented program-
ing and Java core reflection, and extensions of the Java tech-
neology providing parametric polymorphism and persistence. Includes challenging programming projects. Time also devoted to recent Java research and development results. Prerequisites: CS 510 with a B or better.

CS 821. Analysis of Algorithms (3). Deals with advanced topics in the design and analysis of algorithms, including sorting networks, algorithms for parallel computers, Strassen's algorithm for matrix multiplication, polynomial multiplication and the FFT, number theoretic algorithms (gcd computation), and hard problems and intractability. Prerequisites: CS 560 with a B or better; CS 720 is recommended.

CS 822. Parallel Algorithms (3). Deals with the design and analysis of parallel algorithms for various combinatorial problems in the Parallel Random Access Machine (PRAM) model. Covers models of parallel computation, the PRAM model, basic techniques for designing parallel algorithms, algorithms on lists and trees, and algorithms for selection, merging, sorting, searching, as well as algorithms for graph problems. Prerequisite: CS 560 with a B or better.

CS 841. Advanced Computer Architecture (3). A study of advanced topics in computer architecture like parallel processing, stack architectures, computer performance evaluation, and reliability of computing systems. Studies architectures of typical systems belonging to the IBM, CDC, and Burroughs families of computers. Prerequisite: CS 540.


CS 843. Distributed Computing Systems (3). A study of hardware and software features of on-line multiple computer systems emphasizing network design and telecommunications. Includes distributed data bases, interprocessor communication and centralization versus distribution. Also includes study of the use of microcomputers in representative configurations. Prerequisites: CS 540 and 742.

CS 862. Advanced Database Systems (3). This course covers recent developments and advances in database technology. It is designed for students who have had a first database course and have a good background in the related computer science disciplines. Possible topics include: extended relational database management systems, object-oriented database management systems, deductive databases, database type systems and database programming language, persistent languages and systems, distributed databases. Prerequisite: CS 665.

CS 867. Object-Oriented Databases (3). Covers object-oriented technology as it applies to databases and persistent object systems. Focuses on the advantages of the object-oriented database technology in complex application areas. Java database and persistent technologies and the associated tools have an important role here, along with the related industrial standards, such as ODMG. Provides design and implementation experience using a challenging application. Devoted to recent research and development results. Prerequisites: CS 665 and an object-oriented programming language course such as CS 217 or 350015 instructor's consent.

CS 872. Machine Learning and Discovery (3). An advanced study of computer programs that learn, improve performance, and make discoveries. Includes objectives, methods, and research paradigms for such systems, a survey of existing methods and applications, including the most recent developments; theoretical principles for learning and discovery systems; computational theories of learning processes and cognitive models of human learning; concept and theory formation; and use of analogy in learning. Includes participation in a group project such as developing a computer learning system. Prerequisites: CS 771 or 776.

CS 873. Computer Vision (3). An introduction to computer vision, a rapidly growing subfield of artificial intelligence. The basic topic is the understanding or description of images by a computer or robot. Covers two-dimensional Fourier analysis, scene matching and understanding, texture, motion, shape recognition, relational image structure, and human perception. Prerequisite: CS 771 or instructor's consent.

CS 874. Simulation and Modeling (3). An up-to-date treatment of important aspects of simulation modeling, including data collection, input and output data analysis, modeling principles, simulation with general-purpose programming languages, and special-purpose simulation languages. Emphasizes theory, design, and implementation of modeling languages. Prerequisites: CS 310 and STAT 460 with a C or better in each; or instructor's consent.

CS 881. Software Specification and Design (3). A detailed presentation of the techniques and tools available for the specification of software requirements and their translation into a design. Includes formal specification and design methods such as structured analysis, object-oriented design, and JSD. Prerequisite: CS 680.

CS 886. Software Project Management (3). Presents the knowledge, techniques, and tools necessary to manage the development of software products. Includes the phases and activities involved in building a project, the skills and tools required for estimating and scheduling, and the responsibilities of the individuals involved. Prerequisite: CS 680.

CS 887. Individual Reading (1-5). Graded S/U only. Prerequisite: departmental consent.

CS 888. Special Topics (2-3). Topics of current interest to advanced students of computer science. Repeatable for credit with departmental consent. Prerequisite: departmental consent.

Criminal Justice
See Community Affairs, School of.

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 skills in critical thinking and their abilities to use analytical tools to solve complex problems. It is a major that lays a foundation for many career paths.

Major. The economics major in 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 advisor in the Department of Economics in Clinton Hall. Students in this major or minor must achieve a minimum 2.25 GPA. The following courses are required:

<table>
<thead>
<tr>
<th>Course</th>
<th>Hrs</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH 144, Business Calculus</td>
<td>3</td>
</tr>
<tr>
<td>MATH 242, Calculus I</td>
<td></td>
</tr>
<tr>
<td>ECON 201 and 202, Principles of Economics I and II</td>
<td>6</td>
</tr>
<tr>
<td>ECON 231, Introductory Business Statistics</td>
<td>4</td>
</tr>
<tr>
<td>ECON 301, Intermediate Macroeconomics</td>
<td>3</td>
</tr>
<tr>
<td>ECON 302, Intermediate Microeconomics</td>
<td>3</td>
</tr>
<tr>
<td>ECON 340, Money and Banking</td>
<td>3</td>
</tr>
<tr>
<td>Upper-division electives</td>
<td>12</td>
</tr>
</tbody>
</table>

ECON 201 and 202 may be taken as part of the Fairmount College general education requirements.

Minor. A minor in economics is available to any student whose major field or area of emphasis is outside of economics. A minor consists of 15 hours exclusive of ECON 101, 102, and 231. ECON 201 and 202, or the equivalents, must be included.

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 advisor in the College of Education for program planning.

Courses. Economics courses are listed in the Barton School of Business section of the Catalog.
**English Language and Literature (ENGL)**

**English Language and Literature**

The English department offers a broad and flexible program of courses that are central to a liberal arts education while offering students the opportunity for personal enrichment and a variety of career possibilities. The department offers degree programs in creative writing, literature, and English teaching, as well as a range of courses in linguistics. Students who combine an English major with substantial work in other disciplines will find the knowledge and communications skills acquired in their work in English a valuable asset as they seek entrance into a wide range of fields that include communications, education, government, law, and even business.

**Major.** A major consists of 33 hours, 3 of which may, with departmental consent, be taken in a cognate subject (such as foreign literature, theatre, and so forth) offered in a course by another department. The course work must be distributed as follows:

I. **Basic Requirements (21 hours)**
   - ENGL 272; 310; 320 or 330; 360; 361; 362; 274 or 315

II. **Major Requirements (12 hours with at least 6 upper-division) from ENGL223, 252, 254, 275, 285, 290, 336, 340, 342, 345, 346, 347, 365, 421, 430, 503, 504, 512, 513, 514, 515, 521, 522, 524, 526, 527, 532, 533, 535, 536, 537, 580, 610, 615, and 685

**Minor.** A minor consists of 15 hours and requires ENGL 310 and either 320 or 330. Of the remaining 9 hours, at least 6 must be of upper-division work. ENGL 101 and 102 are not counted toward a minor. A number of minors have been specially designed to support majors in other fields; for further information, contact the chairperson of the English department.

**Creative Writing**

A student planning to major in creative writing must complete ENGL 101 and 102 and thereafter complete 33 hours of course work in English, including the following courses:

I. **Basic Requirements (12 hours)**
   - ENGL 272; 310; 320 or 330; 274 or 315

II. **Major Requirements (3 hours)**
   - ENGL 285 (to be completed with a grade of B or better or receive departmental consent for further creative writing course work)

III. **Skill Requirements (at least 12 hours) from ENGL 301, 303, 401, 403, 517, 518, 585, 586; (except for ENGL301 and 303, all of these courses may be repeated once for credit) or University Honors English courses (1-3)

IV. **Electives (at least 6 hours)**
   - Upper-division hours from any other area of emphasis within the department

Minor. A minor with a creative writing sequence is available and consists of 12 hours of creative writing course work including ENGL 285 and 9 hours of skill courses listed above, plus 3 hours of ENGL 310 or 320 or 330.

**Teaching**

Students must file a declaration of English teaching major with an assigned English-education advisor at the time they apply to the teacher education program. A second grade point average in English is required of all majors applying for admission to the professional semester of student teaching in secondary English.

**Major for Students Planning to Teach English in Secondary Schools.** The teaching major in either Fairmount College or the College of Education is 31 hours distributed as follows:

I. **Language (6 hours)**
   - ENGL 315 and one of the following: 316, 317, 667 or 274

II. **Composition (6 hours)**
   - ENGL 680 and one of the following: 210, 685 or any course in the creative writing sequence

III. **Literature (27 hours)**
   - A. Foundations: ENGL272; 310; 320 or 330; and 340
   - B. British and American literature; ENGL 362 or 503; 252 or 504; 360 or 361
   - C. Cross-cultural language/literature; ENGL 342, 345, 365 or 672
   - D. Literature for adolescents: CI 616

IV. **Other (6 hours)**
   - A. THEA 143 and 221
   - V. Electives (6 hours)
     - Six hours in English or in certifiable minor

**Composition**

**Non-credit Courses**

- ENGL 013. Basic Skills for ESL I (3). Offered Cr/NC only. Teaches the fundamental elements of written and spoken English, emphasizing the acquisition of basic grammatical and syntactical structures and the writing of paragraphs.

**Courses for Graduate/Undergraduate Credit**

- ENGL 580. Theory and Practice in Composition (3). Introduces theories of rhetoric, research in composition and writing programs, and practices in schools and colleges. Student planning to major in creative writing must include a third semester of English composition. Writing assignments based on literature read during the semester. Reading material varies with instructor, but generally follows a specific theme. Prerequisites: ENGL101 and 102.

- ENGL 103. Reading, Thinking, and Writing (3). A third semester of English composition. Writing assignments based on literature read during the semester. Reading material varies with instructor, but generally follows a specific theme. Prerequisites: ENGL101 and 102.

- 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: ENGL101 and 102 or instructor’s consent.

**Lower-Division Courses**

- ENGL 100. English Composition (3). 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 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: ENGL101 and 102 or instructor’s consent.

**Upper-Division Course**

- ENGL 481. Cooperative Education (1-3). Provides the student with practical experience, under academic supervision, that complements and enhances the student’s academic program. Individual programs must be formulated in consultation with appropriate faculty sponsors and approved by departmental consent. Offered Cr/NC only.

- ENGL 680. Theory and Practice in Composition (3). Introduces theories of rhetoric, research in composition and writing programs, and practices in schools and colleges. Student planning to major in creative writing must include a third semester of English composition. Writing assignments based on literature read during the semester. Reading material varies with instructor, but generally follows a specific theme. Prerequisites: ENGL101 and 102.
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. Especially for prospective and practicing teachers; may not be taken for credit by students with credit in ENGL 790.

ENGL 685. Advanced Composition (3). Explores the relationships among contemporary issues, problem-solving, and communication. First objective: engage students in interdisciplinary inquiry into some aspect of social policy, inquiry which asks students to apply the analytical approaches of their major fields to current issues of broad, general interest. Second objective: develop students’ abilities to communicate their knowledge and assumptions about this issue to a variety of audiences and for a variety of purposes. Prerequisites: ENGL 101 and 102 and upper-division standing.

ENGL 780. Advanced Theory and Practice in Composition (3). For teaching assistants in English. Review of new theories of rhetoric, recent research in composition, and new promising developments in composition programs in schools and colleges. Students are given practice in advanced writing problems, situations, and techniques and may propose projects for further special study.

Creative Writing

Lower-Division Course

ENGL 285. Introduction to Creative Writing (3). An introductory course; the techniques and practice of imaginative writing in its varied forms. Course may be used to fulfill the general education requirement only as an elective (studio and performance). Prerequisites: ENGL 101 and 102.

Upper-Division Courses

ENGL 301. Fiction Writing (3). Primary emphasis on student writing. Students study form and technique by reading published works and apply those studies to the fiction they write. Course may be repeated once for a total of 6 hours credit. Prerequisite: ENGL 285 with a B or better.

ENGL 303. Poetry Writing (3). Primary emphasis on student writing. Students study form and technique by reading published works and apply those studies to the poetry they write. Course may be repeated once for a total of 6 hours credit. Prerequisite: ENGL 285 with a grade of B or better.

ENGL 401. Fiction Workshop (3). Advanced course. Manuscripts will be critiqued to develop skill in writing, rewriting, and polishing. Repeatable for credit. Prerequisite: ENGL 301.

ENGL 403. Poetry Workshop (3). Advanced course. Manuscripts will be critiqued to develop skill in writing, rewriting, and polishing. Repeatable for credit. Prerequisite: ENGL 303.

Courses for Graduate/Undergraduate Credit

ENGL 517-518. Playwriting I and II (3-3). Cross-listed as Thea. 516 and 517. The writing of scripts for performance. Emphasizes both verbal and visual aspects of playwriting. If possible, the scripts are performed. Not repeatable for credit. Prerequisite: instructor’s consent.

ENGL 585. Writer’s Tutorial: Prose Fiction (3). Tutor work in creative writing in prose fiction with visiting writer. Repeatable for credit. Prerequisite: consent of creative writing director.

ENGL 586. Writer’s Tutorial: Poetry (3). Tutor work in creative writing in poetry with visiting writer. Repeatable for credit. Prerequisite: consent of creative writing director.

Courses for Graduate Students Only

ENGL 801. Creative Writing: Fiction (3). Advanced work in creative writing. Repeatable for credit. Prerequisite: consent of creative writing director.

ENGL 803. Creative Writing: Nonfiction (3). Advanced work in creative nonfiction: forms of nonfiction requiring a distinctive voice and demanding a formal artistry generally associated with fiction. Prerequisite: consent of creative writing director.

ENGL 805. Creative Writing: Poetry (3). Advanced work in the writing of poetry. Repeatable for credit. Prerequisite: consent of creative writing director.

ENGL 875. MFA Final Writing Project (1-6).

ENGL 880. Writer’s Tutorial: Fiction (3). S/U grade only. Tutorial work in creative writing in prose fiction with visiting writer. Prerequisite: consent of creative writing director.

ENGL 881. Writer’s Tutorial: Poetry (3). S/U grade only. Tutorial work in creative writing in poetry with visiting writer. Prerequisite: consent of creative writing director.

Linguistics

Upper-Division Courses

ENGL 315. Introduction to English Linguistics (3). General education further study course. Cross-listed as LING 315. Introduction to linguistic principles, including phonological and grammatical concepts.

ENGL 316. English Sentence Structure (3). Cross-listed as LING 316. The basic rules of English syntax, specifically designed for prospective teachers of English but open to all students interested in English sentence structure.

ENGL 317. History of the English Language (3). Cross-listed as LING 317. Linguistic and cultural development of English. Specifically designed for prospective English teachers, but open to all interested students. Prerequisite: ENGL 315 or departmental consent.

ENGL 318. Dialectology (3). Cross-listed as LING 318. An introduction to the study of regional and social dialects of English. The relationship between language and factors such as socioeconomic class, social networks, sex, nationalism, and geography.

ENGL 351. Linguistics and Foreign Languages (3). Cross-listed as ANTHR 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

ENGL 667. English Syntax (3). Cross-listed as LING 667 and ANTHR 667. Studies the basic principles of English syntax, covering the major facts of English sentence construction and relating them to linguistic theory. Prerequisite: 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 681. Editing American English (3). In this course, students will master the rules and conventions of grammar, sentence structure, spelling, punctuation, usage, and mechanics, and will learn how to apply them while they are revising and editing a written text. As part of the course requirement, students will spend time working as tutors in the writing center to learn and understand the practical application of editing rules. The course will include instruction in the conventions of editing Standard English (also known as Edited American English) and in methods of effective tutoring. Prerequisites: English 101; English 102.

ENGL 727. Teaching English as a Second Language (2-3). Cross-listed as LING 727. Discusses current methods of teaching English to non-native speakers. Students learn to analyze interlanguage patterns and to design appropriate teaching units for class and language laboratory use.


Literature

Lower-Division Courses

ENGL 199A. Writing in Film (3)
ENGL 220. The Literary Heritage: English Masterpieces (3). General education introductory course. Introduces to the lower-division general student selections from the English masterpieces that constitute the literary heritage.

ENGL 223. Books and Ideas (3). Reading, discussing, and some writing about literature from all periods and cultures (fiction, poetry, drama, and essays). For non-English majors; not credited toward an English major or minor.

ENGL 230. Exploring Literature (3). General education introductory course. Perceptive reading of literature in its major traditional periods and in its various genres (especially fiction, drama, and poetry). Deepens the appreciation and understanding of literature: what it is, what it does, and how it does it. Readings are selected with careful attention to the needs and interests of non-English majors and a cultural rather than a technical approach is employed.

ENGL 232. Themes in American Literature (3). General education introductory course. Instruction in perceptive reading through the study of representative works in American fiction, poetry, drama, and the essay. Emphasizes understanding and appreciation of central themes and dominant ideas. Multimedia presentations (films, readings, and recordings), which are closely correlated to the representative works being studied, amplify the scope and range of literature per se.

ENGL 252. Modern American Writers (3). General education further study course. Asurvey of important works by major American writers since World War I.

ENGL 254. Modern British Literature (3). General education further study course. Asurvey of important works by major writers of the British Isles, including Ireland, in the 20th century.

ENGL 272. Origins of the Western Literary Tradition (3). General education further study course. A study of the literary forms that first appear in classical and Biblical literature and reappear in the English literary tradition. Readings from mythology, the classics, and elected books of the Bible.

ENGL 274. The Language of Literature (3). An examination of the principles and problems of literary interpretation that are especially related to language structure.

ENGL 275. Studies in Popular Literature (3). General education further study course. Cross-listed as ANTHR 275. Studies various forms of popular literature (e.g., revolutionary literature, science fiction, western fiction, detective novel) emphasizing both the literary merit of the work and the way it reflects popular tastes and values. Repeatable for credit with change of content.

ENGL 290. The Bible as Literature (3). General education further study course. Studies the Bible as a literary artifact through extensive readings in both Old and New Testaments. Points out literary techniques and discusses their meaning for the manner of composition of the Bible.

Upper-Division Courses

ENGL 307. Narrative in Literature and Film (3). 2R; 2L. A comparative aesthetic analysis of the art of narration in literature and especially in film.

ENGL 308. Critical Studies in Film (3). A critical aesthetic analysis of the literary themes, motifs, genres, and sources of film. Notes critical values in the characteristics of film, covering historical, cultural, canonical, and theoretical developments.

ENGL 310. The Nature of Poetry (3). Acquaints the student with the variety of poetic forms and techniques. Notes contributions of culture, history, and poetic theory as background to the works under study, but primarily emphasizes the characteristics of poetry as a literary communication.

ENGL 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.

ENGL 330. The Nature of Fiction (3). General education further study course. Acquaints the student with narrative fiction in a variety of forms: the short story, short novel and novel. Covers works of fiction drawn from different cultures and historical periods; focuses on the characteristics of fiction, giving some attention to historical development and to theories of fiction.

ENGL 336. Women's Personal Narratives (3). Cross-listed as WOM S 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.

ENGL 342. American Folklore (3). Cross-listed as ANTHR 342. Survey of the types and functions of unwritten traditional materials in the United States, including beliefs, tales, jokes, folk music, customs, and crafts, including some ethnic varieties: the unwritten materials that form the uniqueness of American culture.

ENGL 343. Great Plains Literature (3). General education issues and perspectives course. Covers literature written about the region from Kansas north into southern Canada and from the Mississippi River to the Rocky Mountains. Texts include works by Willa Cather, O.E. Rolvaag, and Mari Sandoz, as well as works by contemporary authors including Native Americans. Topics include contemporary environmental issues and the history of exploration and settlement. Prerequisites: ENGL 101 and 102.

ENGL 345. Studies in Comparative Literature (3). General education further study course. Studies representative works in the Western and ancient Near Eastern literary traditions emphasizing the contrastive 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.

ENGL 346. American Multicultural Literature (3). Provides broad exposure to the literature of various cultures in the U.S., including African American, Native American, Chicana/o, and immigrants from other cultures. Prerequisites: ENGL 101 and 102.

ENGL 347. World Comparative Literature (3). Focuses on emergent, contemporary literatures written in or translated into English from Africa, Asia, Australia, the Pacific and the Americas. Texts may include novels, poetry, plays, essays, films and other forms of creative expression. Prerequisites: ENGL 101 and 102.

ENGL 360. Major British Writers I (3). General education further study course. Covers the primary writers in British literature from the beginnings through the 18th century.

ENGL 361. Major British Writers II (3). General education further study course. Covers the primary writers in British literature from the 19th century to the present.

ENGL 362. American Writers of the 19th Century (3). General education further study course. Studies the major works in the different genres by important American writers of the 19th century as they relate to the growth of a national literature.

ENGL 365. African-American Literature (3). General education further study course. Assures course; acquaints the student with the most significant Afro-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 101 and 102.

ENGL 398. Travel Seminar (3). A two-week travel course to Great Britain, including Ireland, Scotland, and Wales, focusing on the connection between literary works and the sights and landscapes that inspired them. Students are assigned readings when they enroll and are required to keep a literary journal. Prerequisite: ENGL 101 and 102.

ENGL 400. The Literary Imagination: The Tragic, Comic, Heroić, Satiric Modes (3). General education further study course. Acquaints the general student with the major modes that have shaped the Western literary tradition. Focuses on the tendency of the imagination to construct different kinds of fictions that produce tragic pleasure from pain and suffering, comic pleasure from human folly, heroic pleasure from love, war, adventure; satiric pleasure from hypocrisy.
Also acquaints students with the nature of literary inquiry by approaching works from a variety of critical perspectives.

ENGL 421. Epic and Romance (3). Cross-listed as Honors 400. Readings in classic and early western European 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. 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 world view.

ENGL 450. Independent Reading (1-3). For majors and non-majors who wish to pursue special reading or research projects in areas not normally covered in course work. Repeatable for credit.

Courses for Graduate/Undergraduate Credit

ENGL 503. Studies in American Literature I (3). The major fiction, poetry, and nonfiction prose of the classic American period. Discussions may include the historical evolution of American letters, the development of the novel and romance, the transcendental period, and the rise of western and regional literatures.

ENGL 504. Studies in American Literature II (3). Fiction, poetry, and drama from the late 19th century to after World War II. Readings also may include literary criticism and other types of nonfiction prose. Discussions cover themes, topics, and literary forms inspired by the social and cultural movements and events of the first half of the 20th century.

ENGL 512. Studies in Fiction (3). Subjects announced each semester. Repeatable for credit.

ENGL 513. Studies in Poetry (3). Subjects announced each semester. Repeatable for credit.

ENGL 514. Studies in Drama (3). Subjects announced each semester. Repeatable for credit.

ENGL 515. Studies in Shakespeare (3). Subjects announced each semester. Repeatable for credit, except by students who take ENGL 340. Prerequisites: junior standing and one college literature course, or instructor’s consent.

ENGL 521. Readings in Medieval Literature (3). English and Continental literature, 12th to 15th century. Chaucer, Malory, the Pearl Poet, medieval lyric, drama, epic, romance, and saga. Prerequisites: junior standing and one college literature course, or instructor’s consent.

ENGL 522. Readings in Renaissance Literature (3). Sidney, Spenser, Shakespeare (poetry), Donne, Jonson, Milton, and their contemporaries. Prerequisites: junior standing and one college literature course, or instructor’s consent.

ENGL 524. Readings in Restoration and 18th Century Literature (3). Swift, Pope, Johnson, and their contemporaries. Prerequisites: junior standing and one college literature course, or instructor’s consent.

ENGL 526. Readings in Romantic Literature (3). Blake, Wordsworth, Coleridge, Byron, Shelley, Keats, and their contemporaries. Prerequisites: junior standing and one college literature course, or instructor’s consent.

ENGL 527. Readings in Victorian Literature (3). Writers from Carlyle to Yeats studied in relation to political events and the social, scientific, and religious thought of the age. Prerequisites: junior standing and one college literature course, or instructor’s consent.


ENGL 533. Studies in Contemporary Literature (3). Modern literature, primarily British and American, since 1950. Subjects announced each semester. Repeatable for credit.

ENGL 535. Literary Images of Women: Diverse Voices (3). Cross-listed as WOM S 535. Explores literature written in English by women of diverse ethnic, racial, class, and other backgrounds, as well as of varying sexual orientations, ages, and degrees of physical ability. Materials analyzed both as literary works and as expressions of women’s differences from one another. Works selected on their specific attention to the question of gender as it intersects with other elements of culture.

ENGL 536. Writing by Women (3). Cross-listed as WOM S 536. Explores various themes in critical approaches to literature composed by women writers, especially those whose works have been underrepresented in the literary canon. Genres and time periods covered, critical theories explored and specific authors studied vary in different semesters.

ENGL 537. Contemporary Women’s Drama (3). Cross-listed as WOM S 537. Examines contemporary plays by and about women to discover and explore the insights of various playwrights into the lives and roles of women. In addition to reading and analyzing plays, students write plays of their own.

ENGL 580. Special Studies (1-3). Topic selected and announced by the individual instructor. Repeatable for credit. Prerequisite: departmental consent.

ENGL 601. Old English (3). Cross-listed as LING 610. Studies the Old English language in enough detail to enable the reading of some prose and poetry, including parts of Beowulf in the original. Some literature, including all of Beowulf, is read in translation, with attention to important literary and cultural features of the period.

ENGL 615. Chaucer (3). Chaucer’s Canterbury Tales, Troilus and Criseyde, and selected lyrics, with a few works by other late 14th century authors and some critical and historical studies. Focuses on close reading of Chaucer in Middle English. Prerequisites: junior standing and one college literature course, or instructor’s consent.

ENGL 681. Editing American English (3). Students master the rules and conventions of grammar, sentence structure, spelling, punctuation, usage, and mechanics, and learn how to apply them while they are revising and editing a written text. Students work as tutors in the Writing Center to learn and understand the practical application of editing rules. Includes instruction in the conventions of editing Standard English (also known as Edited American English) and in methods of effective tutoring. Prerequisites: ENGL 101 and 102.

ENGL 750. Workshop (2-4). Repeatable for credit.

Courses for Graduate Students Only

ENGL 800. 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 817. Graduate Readings in 20th Century British Literature (3). Yeats, Joyce, Lawrence, Auden, Spender, and their contemporaries.

ENGL 821. Graduate Readings in American Literature I (3). From the beginnings to 1870 emphasizing Emerson, Thoreau, Hawthorne, Melville, Whitman and Dickinson.

ENGL 822. Graduate Readings in American Literature II (3). From 1870 to 1920 emphasizing James, Twain, Crane, Dreiser, Robinson and Frost.

ENGL 823. Graduate Readings in American Literature III (3). From 1920 to 1970, including Eliot, Stevens, Hemingway, Faulkner, and their contemporaries.

ENGL 825. Theories of Rhetoric: Classical (3). An extensive study of the rhetorical theories of classical writers from 466 B.C. to the decline of Roman oratory. Emphasizes Isocrates, Plato, Aristotle, Quintilian, Cicero and Longinus.

ENGL 826. Theories of Rhetoric: Renaissance to Early Modern (3). Cross-listed as COMM 831. A study of the emerging patterns of rhetoric from the Second Sophistic to modern times. Analyzes the rhetorical systems associated with such figures as Augustine, Fenelon, Bulwer, Sheridan, Steele, Rush, John Quincy Adams, Blair, Campbell, and Whately.

ENGL 830. Graduate Studies in Drama (3). Selected topics in the history and nature of dramatic literature.

ENGL 832. Graduate Studies in Fiction (3). Selected topics in the development of the form and content of prose fiction.
Environmental Science
WSU offers an interdisciplinary Master of Science degree program in environmental science. This graduate program educates scientists in a multidisciplinary approach (involving primarily biology, chemistry, and geology) rather than from the perspective of a single discipline. For more information, consult the WSU Graduate Bulletin.

In preparation for entry to the graduate program in environmental sciences, students may complete an undergraduate program using one of a variety of degree designs. See the LAS Advising Center for assistance.

Ethnic Studies
See Community Affairs, School of.

Film Studies
The film studies minor at Wichita State University is designed to provide students interested in film and the visual media with a focused sense of the possibilities, limitations, and actual accomplishments of the visual media as they have, in fact, developed. The minor also offers opportunities to study film as an art form and to gain experience in media production. The film studies minor consists of 18 semester hours from the courses listed below, selected with the approval of the coordinator of film studies.

Certificate in Film Studies
The Certificate in Film Studies requires English 199A.

Writing About Film and 15 additional semester hours in any film-oriented courses from any department and disciplines that offer such courses. The Certificate is offered both for those students seeking employment in some aspect of film or film criticism or for those wishing to improve their understanding of film.

Wichita State University does not at this time offer a film studies major. However, the minor can prove useful to students majoring in literature, journalism, and speech; it also can appeal to those in fields where some knowledge of mass communication as a cultural phenomenon is desirable, including sociology, history, anthropology, psychology, education, administration, and American studies.

Students seeking more information about the film studies minor should contact Dr. Christopher Brooks in the Department of English.

Courses approved for the film studies minor are:

- HIST 106, The Way It Was: Western Civilization in Film
- COMM 220, Introduction to Film Studies
- ART G 231, Basic Photography (Motion Picture)
- ENGL 199A, Writing in Film
- ENGL 307, Narrative in Literature and Film
- COMM 320, Cinematography
- ART G 430, Television for Graphic Design
- COMM 304, Studio Video Production
- COMM 604, Field Video Production
- ENGL 380, Critical Studies in Film
- WOM S 480A, Hollywood Melodrama: The Women’s Film
- WOM S 523, Feminist Film Criticism
- ANTHR 150, American Culture in Film
- POL S 390V, Topics in Film (film topic varies)
- HIST 499, The Holocaust in Film*
- SPAN 515, Classic Spanish Films*

*Offered only occasionally.

French
See Modern and Classical Languages and Literatures.

Geography (GEOG)
Only courses 201, 235 and 311 are intended as physical science courses. All other geography courses are intended as social science offerings.

Geography Minor. A minor in geography consists of at least 15 hours including GEOG 125 or 201 or the equivalent.

Lower-Division Courses

- GEOG 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 201, Physical Geography (3). 2R; 3L. General education introductory course (natural science). Lab fee. Emphasizes the physical basis of geography, including climate, terrain, soils, landforms, and the seas; economic resources; cartographic elements; introduction to regional studies. Field trips are required at the option of the instructor.
- GEOG 210, Introduction to World Geography (3). General education introductory course (social science). Ageneral survey of world geography including an analysis of the physical, political, economic, historical, and cultural geography of the world’s 11 regions.
- GEOG 235, Meteorology (3). 2R; 2L. General education further study course (natural science). Lab fee. An introductory study of the atmosphere and its properties and the various phenomena of weather. Includes a brief survey of important principles of physical, dynamic, synoptic, and applied meteorology. Does not apply toward a major or minor in geology. Requires field trips at the option of the instructor. Prerequisite: instructor’s consent.

Upper-Division Course

- GEOG 311, Climatology (3). Cross listed as GEOL311. A study of the average weather around the world. Fundamentals of meteorology will be presented with an emphasis on applying them to climatology. Emphasis on world climate regions, causes of climate variation, and the effects of climate on the environment. This course is designed for those with little or no background in math or science. Prerequisite: GEOL/GEOG 235 or instructor’s consent.

Courses for Graduate/Undergraduate Credit

- GEOG 501, World Geography (3). A study of world regions including an analysis of each region’s physical, political, economic, and cultural geography. Focus on a specific geographical problem for an in-depth study and analysis. Prerequisite: instructor’s consent. May not be taken if credit has been received for GEOG 210.
- GEOG 530, Geography of Latin America (3). General education further study course (social science). Physical, political, economic, historical and human geography of Latin America.
- GEOG 542, Geography of Europe (3). General education further study course (social science). Physical, political, economic, historical, and human geography of Europe.
- GEOG 695, Special Studies in Geography (1-3). 3R or 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 course work and other scholarly achievements to the department's assessment program. Students also are required to take at least one integrating capstone course, preferably during their senior year. Capstone courses are identified below.

The Department of Geology also offers a Master of Science (MS) degree in geology and, in conjunction with the departments of biological sciences and chemistry, an MS degree in environmental science. For more information about the graduate programs, see the Graduate Bulletin.

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 lectures, short courses, attendance at academic conferences, and social gatherings.

Geology Major—BA. The BA degree program, providing flexible, broad training in the Earth sciences, is for students who wish to combine the geology major with teacher preparation (K-12), environmental studies, land-use planning, science journalism, environmental law, natural resource management/business, or similar majors. The BA degree also is suited to students discovering geology as an interest later in their college of life experience. This program represents a minimum proficiency. Students are strongly advised to elect additional courses in geology and supporting sciences if they are interested in pursuing graduate studies in the geosciences after earning the BA.

A major with the BA requires a minimum of 30 hours in geology, including:

1. Required core courses—24 hours
   GEOL 102, Earth Science and 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 and Optical Mineralogy (4)  
   GEOL 526, Sedimentary Geology (3)  
   GEOL 544, Structural Geology (3)

2. An additional 6 hours of electives chosen from the Catalog listings for geology to match the student’s career interests and in consultation with an advisor from the geology department.

3. Required supporting sciences
   MATH 242 and 243, Calculus I and II (10)  
   STAT 370, Elementary Statistics (3)  
   PHYS 213 and 214, General College Physics I and II (10) or PHYS 313 and 314, University Physics I and II (8)

It is recommended that these courses be taken prior to, or at least concurrently with, the required core courses in geology listed above. Students interested in pursuing graduate degrees in environmental science should also consider taking BIOL210 and 418. CS 105 is recommended for students with little experience with computers.

Minors. A minor in geology consists of at least 15 hours of geology including GEOL 102 (with lab for 4 credit hours) or GEOL111. 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). 3L. General education introductory course. Studies the processes that shape the earth’s physical environment; the impact of human activities on modifying the environment; use and abuse of natural resources including soil, water, and air; waste disposal; and natural environmental hazards. GEOL 102 (4) 3R; 2L is recommended for students desiring general education credit for a natural science laboratory experience. Credit not allowed in both GEOL102 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 GEOL102 and 111.

>GEOL 235. Meteorology (3). 2R. General education further study course (physical science). Lab fee. An introductory study of the atmosphere and its properties and the various phenomena of weather. Includes a brief survey of important principles of physical, dynamic, synoptic, and applied meteorology. Does not apply toward a major or minor in 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 311. Climatology (3). Cross-listed as GEOG 311. A study of the average weather around the world. Fundamentals of meteorology will be presented with an emphasis on applying them to climatology. Emphasis on world climate regions, causes of climate variations, and the effect of climate on the environment. Overview course is designed for those with little or no background in math or science. Prerequisite: GEOL/GEOG 201.

>GEOL 312. Historical Geology (4) 2R; 2L. General education further study course. Systematic review of earth history and its preservation in the rock record using field evidence for sequences of physical, biological, and tectonic events in selected areas. Also includes the origin and evolution of life. Field trips required. Prerequisite: GEOL 102 or 111 or GEOL 323 or equivalent.

GEOL 320. Mineralogy and Optical Mineralogy (4). 1R; 6L. Elementary crystallography. 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 111, MATH 112 or 123.

GEOL 324. Petrology and Petrography (3). 1R; 6L. The origin, distribution, occurrence, description, and classifications of igneous, metamorphic, and sedimentary rocks with laboratory emphasis on their hand-sample and optical (thin-section petrographic) recognition. Prerequisite: GEOL 320.

GEOL 410. Honors in Geology (3). Senior thesis for departmental honors. The independent study project on a topic of the student’s choice must be original research or creative work. Repeatable to a maximum of 6 credit hours. Prerequisites: acceptance by the Emory Lindquist Honors Program and departmental approval.

GEOL 430. Field Studies in Geology (2–6). Off-campus, systematic field study in a selected area of geologic significance. Course is given upon demand and may be repeated for credit when locality and content differ. Where appropriate, travel, lodging, and board costs are charged.

Courses for Graduate/Undergraduate Credit

GEOL 526. Sedimentary Geology (3). 2R; 3L. Origin, classification, primary structures, and physicochemical 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. Requirements. Prerequisites: GEOL 531 and 526.

>GEOL 560. Geomorphology and Land Use (2). General education further study course. 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 312 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 biochronology, paleoecology, paleoclimatology, and paleoecography. Includes 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 areas listed.

GEOL 602. Laboratory Methods in Geology (1). Methods of data collection and analysis of geologic samples; special instruction in the use of (a) scanning electron microscope; (b) X-ray diffractometry; (c) atomic absorption spectrophotometry; (d) cathodoluminescence petrography; and (e) other instrumentation. Repeatable for credit. Prerequisite: GEOL 312, 320; or instructor’s consent.

GEOL 621. Geochronology (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 111; or instructor’s consent.

GEOL 630. Field Studies in Geology (2–6). (A) Geology of Kansas (1-3); (B) Geology and Natural History of Tropical Marine Environments (C). Off-campus, systematic field study in a selected area of geologic 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 due on campus during the sixth week. Prerequisite: GEOL 324, 540, 544, and 552.

GEOL 650. Geohydrology (3). 2R; 3L. Capstone course. The hydrologic cycle, physical, and chemical properties of water; fluid flow through permeable media; exploration for
and evaluation of groundwater; water quality and pollution; and water law. Prerequisites: GEOL 52, 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 Climatic Change (3). Capstone course. Modern climate and climatic changes and analysis of climatic deterioration; systematic study of geologic evidence of climate change through time. Emphasizes theoretical causes, feedback mechanisms, and recognition of effects on climatic perturbations in the rock record. Prerequisites: GEOL 312 and 526.

GEOL 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. Prerequisites: GEOL 324.

GEOL 682. Petroleum Geology (3). 2R; 3L. The origin, migration, and accumulation of oil and gas in the earth’s crust; reservoir trap types in common hydrocarbon fields, origin and types of porosity systems, and distribution of world petroleum supplies. Introduces subsurface study techniques. May require field trips. Prerequisites: GEOL 526 and 552.

GEOL 684. Methods of Subsurface Analysis (2). 1R; 3L. Methods of remotely logging and describing the geologic occurrence of subsurface strata; characterization of subsurface strata, including laboratory analysis of recovered subsurface samples; application to petroleum geology, mineral resource evaluation, and environmental geology. Prerequisites: GEOL 312, 526, and 552; or instructor’s consent.

GEOL 690. Special Studies in Geology (1-5). Systematic study in selected areas of geology. Offered on demand; repeatable for credit when content differs. Requires laboratory work or field trips (instructor’s option). Prerequisite: instructor’s consent.

GEOL 698. Independent Study in Geology (1-3). Independent study on special problems in selected areas of geology: (a) general, (b) mineralogy, (c) petrology, (d) structural, (e) paleontology, (f) economic geology, (g) sedimentation, (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. Cross-listed as BIOL 702 and CHEM 702. Advanced theoretical and applied principles of the interdisciplinary study of environmental science. Includes chemical cycling, atmospheric chemistry, and phase interactions. The laboratory portion addresses local environmental problems from a risk assessment perspective. GEOL 702 and 703 (or equivalent) are required for all graduate students in the master’s of environmental science program. Prerequisite: acceptance in the master’s of environmental program or instructor’s consent.

GEOL 703. Environmental Science II (5). 3R; 4L. Cross-listed as BIOL 703 and CHEM 703. Advanced theoretical and applied principles of the interdisciplinary study of environmental science. Includes environmental chemical analysis, environmental toxicology, aquatic microbial 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 master’s of environmental science program. Prerequisite: GEOL 702 or instructor’s consent.

GEOL 704. Environmental Science Colloquium (1). Cross-listed as BIOL 704 and CHEM 704. Students in the master’s program of environmental science 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 projects and groups. Grades S/U only. May be repeated for up to four hours credit.

GEOL 706. Environmental Science Internship (3-6). Cross-listed as BIOL 706 and CHEM 706. Students in the master’s program in environmental science may gain interdisciplinary skills in environmental science by participating in applied and/or basic research internship projects with local business, industry, or government agencies. Internship option is an alternative to thesis research for degree requirements. Enrollment in internship projects requires an approved proposal. Completion of an internship for graduation requires a formal oral presentation of the internship activity and a written report. Prerequisites: Environmental Science I and II.

GEOL 720. Geochemistry (3). The chemistry of natural aqueous solutions and their interaction with minerals and rocks; thermodynamics and kinetics of reactions; emphasizes application to sedimentary environments and environmental problems. Requires some laboratory work. Prerequisites: GEOL 324 and Chem 112 or instructor’s consent.

GEOL 724. Soils (3). Geologic analysis of soil types, their formation, occurrence, and mineralogy; soil management and conservation; environmental aspects of soil occurrence including stability studies, pollution, and reclamation.

GEOL 725. Clay Mineralogy (3). 2R; 3L. An evaluation of compositional and structural elements of clay-mineral families, related phyllosilicates and associated diagenetic-authigenic mineral deposits in sedimentary environment. Also laboratory identification and classification of minerals by x-ray powder diffraction and thermal analysis. Prerequisite: GEOL 526.

GEOL 726. Carbonate Sedimentology (3). 2R; 3L. The origin and genetic description of carbonate particles, sediments and rocks, mineralogy and textural classifications; depositional environments in carbonate rocks and analysis of modern and ancient depositional system. May require field trips. Prerequisites: GEOL 526, 552, or equivalents.

GEOL 727. Carbonate Diagenesis (3). 2R; 3L. Analyzes diagenesis of carbonate sediments and rocks. Includes inorganic stability in natural waters, meteoric, marine and deep-burial diagenesis, dolomitization processes and products; trace elements and isotopes as diagnostic 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). Perspectives of global issues of geo-environmental concern with regard to past, present, and future exploitation, use, and availability of earth’s resources; marine and terrestrial pollution and resource use; water, minerals, and fuel resources; population growth and resource availability; the greenhouse effect, global climatic change, and sea level rise and their effects on populations; future trends in environmental management and remediation of environmental problems of geologic scope. Prerequisite: Geol 312, 680; or instructor’s consent.

GEOL 740. Basin Analysis (3). Prerequisite 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 662, 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 7-day field trip. Prerequisites: GEOL 512, 526, and 726.

GEOL 750. Workshop in Geology (1-3). Short-term courses with special focus on geological problems. Prerequisites: graduate standing and/or instructor’s consent.

GEOL 751. Advanced 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 non-aqueous fluids. Covers groundwater quality, sources of groundwater contamination, etradation of contaminants, retardation and attenuation of dissolved solids and the response of inorganic and organic substances to subsurface aqueous and framework chemistry. Computer simulation models used whenever practical along with detailed analysis of case histories, including those related to environ-
mental geoscience. Prerequisite: GEOL650, 681, MATH 344, or instructor’s consent.

GEOL 760. Exploration Geophysics (3). Introduces the theory and application of geophysical techniques for hydrocarbon, mineral, and groundwater prospecting. Includes use of seismic techniques; instrumentation for acquisition on land and sea; seismic processing; structural and stratigraphic modeling; 3-D seismic exploration; and seismic refraction techniques. Prerequisites: completion of geology undergraduate math and physics requirements; MATH 344 or 555; GEOL324 and 544; and instructor’s consent.

GEOL 781. Advanced Numerical Geology (3). Involves practical implementation of algorithms and computer code. Includes the analysis of multivariate techniques and the development of the computer/algorithm skills needed to handle very large databases. Covers standard statistical approaches to data analysis; treatment of applied linear algebra and matrix theory; and the application of linear and non-linear discriminate analysis, various factor analytic techniques, hard and fuzzy clustering, linear and non-linear 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.

Courses for Graduate Students Only

GEOL 800. Research in Geology (3). 9L. Research in special areas of geology: (a) general, (b) mineralogy, (c) petrology, (d) structural, (e) paleontology, (f) economic geology, (g) sedimentation, (h) stratigraphy, (i) geophysics, and (j) petroleum. Requires a written final report. Prerequisite: consent of sponsoring faculty.

GEOL 808. History of Geology (1-3). Selected events and personalities in geology that have led to our present understanding of geology’s place in science. Prerequisite: instructor’s consent.

GEOL 810. Advanced Graduate Studies in Geology (1-6). Systematic study in a selected topic of professional or applied geology. Course given upon demand; repeatable for credit when content differs. May require field trips. Prerequisites: Graduate standing, instructor’s consent, and two years of professional postgraduate practice in geology.

GEOL 821. Special Studies in Geochemistry (3). A systematic study in selected areas of geochemistry. Content differs upon demand to provide in-depth analysis in fields of (a) sedimentary carbonate and silicate geochemistry and mineralogy, (b) organic geochemistry, (c) high pressure and temperature thermodynamics of earth materials, (d) exploration geochemical geochemistry, (e) ecogenetic geochemical cycling, (f) stable isotope geochemistry. May be repeated for credit to cover all six areas listed. May require some laboratory work. Prerequisite: GEOL720 or instructor’s consent.

GEOL 823. Igneous and Metamorphic Petrology (3). 1R; 6L. Mineral paragenesis, bulk chemical compositions, physical chemical relationships, textures, structures, origins, and classifications of igneous and metamorphic rocks. Thin-section studies to facilitate rock identifications and the determination of petrographic relationships. May require field trips. Prerequisite: instructor’s consent.

GEOL 826. Sedimentary Petrology (3). 2R; 3L. Detailed study of sedimentary rocks and their origins. Facilitates determinations of mineral compositions, textures, structures, fabrics, and petrogenetic relationships by the use of thin sections, peels, and geochemical analyses. May require field trips. Prerequisite: GEOL526.

GEOL 830. Field Studies in Geology (2-6). Off-campus, systematic field study in a selected area or region of geologic significance. Course given upon demand; repeatable for credit when locality and content differ. Where appropriate, travel, lodging, and board costs are charged. Prerequisites: summer field geology (or equivalent) and instructor’s consent.

GEOL 840. Geoelectronics (3). Physical and geological principles of crustal deformation and tectonic interpretation. Studies the relationship of interior earth processes to crustal deformation with special reference to global tectonics. May require field trips. Prerequisite: instructor’s consent.

GEOL 852. Field Stratigraphy (3). 2R; 3L. Advanced concepts and principles of stratigraphic analysis and interpretation emphasizing original sources and current research investigations. Required field problem and field trips. Prerequisites: GEOL544 and 552 or instructor’s consent.

GEOL 860. Special Topics in Geophysics (3). Systematic study in one or more selected topics of theoretical and applied geophysical techniques. Emphasizes applications of state-of-the-art concepts and principles to problems of regional to global significance. Potential topics include seismic stratigraphy, vertical seismic profiling, reservoir petrophysical response estimates, shallow aquifer geophysical modeling, geophysical basin modeling, and regional and global environmental modeling. Prerequisites: GEOL 681, 760; MATH 344 or 555; or instructor’s consent.

GEOL 870. Advanced Biogeology (3). 2R; 3L. Paleoecological reconstruction of ancient plant/animal communities and environments emphasizing community structure, biostatigraphy, synthesis of total raw data, and problem solving. May require field trips. Prerequisite: a course in biogeology or equivalent.

GEOL 881. Special Topics in Numerical Geology (3). Systematic study in one or more topics of theoretical and applied quantitative analysis appropriate for environmental and geological research. Emphasizes applications of state-of-the-art concepts and principles to problems of regional to global significance. Potential topics include quantitative shape analysis, petrographic image analysis, multi-variable linear and non-linear un-mixing, extrapolation and interpolation techniques; quantitative isotope chronostratigraphic techniques, modeling global phenomena, and simulations of multi-phase flow in aquifers and reservoirs. Prerequisites: GEOL681, 781; and Math 344 or 555, or instructor’s consent.

GEOL 890. Thesis (1-6). Prerequisite: departmental consent.

German, Greek
See Modern and Classical Languages and Literatures.

Gerontology
See Community Affairs, School of.

History (HIST)

The purpose of WSU’s Department of History is to illuminate the forces that have shaped our world and to provide a historical perspective for the future. To accomplish those goals, the department offers a flexible program of study. While students may focus on a specific area of concentration, the program introduces them to a variety of classes that 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, communications, and public affairs.

Major. A major in history requires the successful completion of a minimum of 33 hours. All majors complete HIST 200 and 498; 3 credit hours of either HIST 100, 101, or 102; 3 credit hours of either HIST 131 or 132; and a minimum of 15 upper-division (300-level or above) hours, including at least 3 hours from each of the following areas: ancient and medieval history, modern European history, or American history (including Latin America).

Minor. A minor in history requires students to complete a total of 15 hours in history. Only 6 of those hours may be lower-division (100-and 200-level) courses. Students who complete the minor are limited to 3 hours of HIST 310.

Teaching of History. Because Kansas Department of Education regulations governing the certification of secondary history teachers are very specific, students planning to be teachers of history should contact a secondary social studies advisor in the College of Education for program planning beyond the requirements of the history major.

Lower-Division Courses

HIST 100. The Human Adventure: World Civilization Since 1500 (3). General education introductory course. An introductory history of the human experience during the past five centuries, with attention to the major social, cultural, economic, and political traditions of Asia, Africa, and the Americas as well as Europe.

HIST 101. History of Western Civilization to 1648 (3). General education introductory course. Examines the development of Western Civilization and Culture from its origins in the Ancient Near East to the Reformation. Pays attention to the people, cultures, and ideas which contributed to the growth of the societies of Western Europe.
HIST 102. History of Western Civilization since 1648 (3). General education introductory course. Introductory survey of the political, social, cultural, and economic developments in Europe from 1648 until the present day that have shaped our world. Covers the development of constitutional democracies, the rise of totalitarian dictatorships, the emergence of mass society and the middle class, and revolutionary developments in politics and technology.

HIST 103. World Civilization to 1500 (3). Introduces great world civilizations before 1500, both western (Near East, Greece, Rome, and Medieval and Renaissance Europe) and non-western (China, Japan, India, Sub-Saharan Africa, and the Americas). Readings help define civilization, stress the individual contributions of each culture to world civilization, and examine the interactions and influences between cultures.

HIST 110. Russian Studies (3). Cross-listed as RUSS 110 and 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 WW I, WW II, Korea, and Vietnam—continue to affect Americans and present a challenge to democracy within a growing diverse population that tests traditional institutions.

HIST 150. Workshop in History (2-3).

HIST 220. Media Courses in History (2-3). Courses creat-ed or coordinated by the Department of History which are offered through various media: radio, television, and newspaper. Areas of historical emphasis vary from course to course.

HIST 225. Your Family in History (3). Bridges the gap between history and genealogy through demonstrations of the kinds of research techniques available to those who are interested in creating a family history. Students demonstrate understanding of these techniques in a family history project.

Upper-Division Courses

HIST 300. Introduction to Historical Research and Writing (3). Basic “hands-on” instruction in historical research methodology, writing, and criticism. Students do individual research and write article and book reviews, a lengthy research paper, and critiques of their colleagues’ paper drafts. Goal is for students to be capable of conducting historical research and presenting findings in a professional manner. Required of history majors.

HIST 302. American Popular Culture (3). Examines American popular culture from the Civil War to the present. 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 twentieth century. Beginning with the assassination of William McKinley, this course explores the U.S. participation in wars, the economic and social crises of the Great Depression, and the reform movements of the “American century.”

HIST 308. A History of Lost Civilizations (3). General education issues and perspectives course. A comparative examination of lost civilizations of both the Old World and New World, including the Sumerians, Hittites, Minoans, Myce-neans, Etruscans, Mohe-njo-Daro, Khymers, Incas, Mayas, and Aztecs.

HIST 310. Special Topics in History (2-3). Repeatable twice for credit. Prerequisite: departmental consent.

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 war for independence, continues with the challenges to achieve nationhood, and concludes with an examination of major social political, and economic issues Latin America nations faced in the 20th century. Roles of Bolivar, Santa Anna, Evita, and Castro are key components.

HIST 314. English History (3). General education further study courses. English History: from the beginning of the Stuart period to the present.

HIST 315. Modern German History (3). General education further study course. Surveys German history from the end of the Napoleonic era in 1815 to the fall of the Berlin Wall in 1989.

HIST 316. The Jewish Experience in Christian Europe (3). Introductory survey course. Expouses students to some of the main themes in the history of Jewish civilization in Western culture and society from the early Middle Ages to the present.

HIST 317. The Holocaust (3). General education further study course. Investigates the conditions within European society which led to and ultimately culminated in the murder of approximately 6 million Jews.

HIST 318. The Holocaust in Film (3). Examines ways the Holocaust has been represented in film and uses the material to evaluate the problematic nature of historical representation in film.

HIST 320. Russian History Survey (3). General education further study course. An overview of Russian history from 862 A.D. 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). An overview of the various arenas where public history takes place and an introduction to the tools and techniques that historians use to present historical research in non-academic settings.


HIST 332. Ethnic America, 1500-1924 (3). General education further study course. Cross-listed as ETH S 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 Twentieth Century (3). General education further study course. Cross-listed as ETH S 334. An in-depth study of the ethnic experience in the 20th century. Major historical topics include identity formation, inter-generational conflict, class differentiation and social mobility, the politics of ethnicity, resistance and civil rights movements, the 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 charities, fans and critics, labor and owners.

**HIST 357. Women in the Ancient World (3)** General education further study course. Explores the social and economic roles 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 350. The Greek World (3)** Surveys Greek history and culture from the Minoans to the Roman Conquest.

**HIST 362. The Roman World (3)** General education further study course. Surveys Roman history and culture from the Etruscans to Constantine the Great, the first Christian emperor. Examines the history, social structure, and economy of Rome and the Roman world to answer the questions: what made Rome great and what led to her eventual decline. Includes warfare, slavery, and family life.

**HIST 481. Cooperative Education (1-3)** The cooperative program would cover work done at museums or ar chival divisions of libraries. Cannot be included for a history major or minor. Offered Cr/NC only. Prerequisite: departmental consent.

**Courses for Graduate/Undergraduate Credit**

**HIST 501. The American Colonies (3)** General education further study course. Colonization of the New World emphasizing the British colonists and their development.

**HIST 502. The American Revolution and the Early Republic (3)** General education further study course. Examination of selected phases of the revolutionary, confederation, and federal periods.

**HIST 503. The Age of Jefferson and Jackson (3)** General education further study course. This course examines the 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. This class explores the origins and history of the bloodiest war this nation has ever fought. Students will study ante-bellum America, focusing on the sectional differences between North and South, the institution of slavery, and the abolitionist crusade; and the battlefields of the Civil War.

**HIST 505. The United States, 1865 to 1900 (3)** Covers the great economic, political, social, and moral questions of the late 19th century, Includes industrialism, the frontier, the city, immigration, race, class, culture, empire, gender, and reform.

**HIST 507. The United States, 1900-1945 (3)** General education further study course. Major topics explored in this class include World War I, the Great Depression, and World War II. While this period in U.S. history is noteworthy for conflict, consensus in the form of Progressivism, the New Deal, and the emergence of the modern presidency also characterize these decades. An examination of political leadership will be a major component of this course. The emphasis, however, will be "history from the bottom up" as we examine the lives of ordinary Americans.

**HIST 508. The United States Since 1945 (3)** General education further study course. In this time period, the United States emerged as a world leader. Although the Cold War became a defining force both at home and abroad, "hot" wars in Korea and Viet Nam also produced social, economic, and political repercussions in the United States. This course explores major issues and events of the period with a focus on international relations, the Civil Rights Movement, and the growth of the imperial presidency.

**HIST 511. Women in Early America, 1600-1830 (3)**

**HIST 512. Women and Reform in America, 1830-present (3)**

**HIST 515. Economic History of the United States (3)** Cross-listed as ECON 627.

**HIST 516. History of American Business (3)** General education further study course. A history of American business enterprise from colonial times to the present, emphasizing the industrial age since the Civil War, on case studies of individual firms, on biographies of business people, and on the social and political impact of business.

**HIST 517 & HIST 518. Constitutional History of the United States (3 & 3)** General education further study courses. 517: the evolution of the American constitutional system from English and colonial origins through the Civil War. 518: American constitutional development from Reconstruction to the present.

**HIST 521. Diplomatic History of the United States to 1914 (3)** General education further study course. Beginning with the colonial era, this course examines the diplomatic history of the United States to the brink of American participation in the First World War. The focus will be on the movement toward independence, territorial expansion across the continent, the Civil War and the emergence of America as a world power.

**HIST 522. Diplomatic History of the United States Since 1900 (3)** General education further study course. This course examines American diplomatic history during the twentieth century; that is, from the era of Theodore Roosevelt and the "Big Stick" through the presidency of Bill Clinton. This was a period when the United States emerged as a major player in global affairs, engaged in numerous military conflicts, waged a cold war against the "evil empire" of the Soviet Union, and ultimately stood alone as the world’s only economic and military "super power."

**HIST 525. American Military History (3)** General education further study course. This course surveys the American military heritage and its role in shaping the modern United States. Students will study the history of warfare from frontier conflicts during the colonial period through Desert Storm, focusing on the most significant wars and battles, and the evolution of military institutions and their impact on American social, economic, and political traditions.

**HIST 528. History of Wichita (3)** A history of Wichita, Kansas, 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)** Cross-listed as WOM 530. Examination of the history, status, and changing role of women in American society.

**HIST 531. American Environmental History (3)** General education further study course. Examines the historical, physical, economic, scientific, technological, and industrial interactions of the peoples of America with their environment. Emphasizes the period, 1800-present.

**HIST 532. Women in Ethnic America (3)** Cross-listed as ETH S 532 and WOM S 532. An in-depth, thematic understanding of the historical experiences of women of color across space and time in U.S. history. Employing a female-centered framework of analysis, course probes the intersections of race, class, gender, and sexuality in women’s lives.

**HIST 533. The American City: from Village to Metropolis (3)** An 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). General education further study course. Examines Southern civilization prior to the American Civil War.

HIST 535. History of Kansas (3). General education further study course. History of the Kansas region from Spanish exploration to the present, emphasizing the period after 1854.

HIST 536. Survey of American Indian History (3). General education further study course. Surveys the history of Native American nations from pre-historic times to the present. Includes the process of European colonization and indigenous responses; the strategies of accommodation, assimilation, and resistance; and the resurgence of tribalism in the 20th century.

HIST 537. The Trans-Mississippi West (3). Spanish, French, and Anglo-American penetration and settlement west of the Mississippi River from the 16th century to about 1900.

HIST 538. The American West in the Twentieth Century (3). General education further study course. Explores the growth of the trans-Mississippi West in the 20th century, emphasizing political development, economic, 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. Pre-Columbian Mesoamerica; the Spanish conquest and the colonial period; the independence movement; Juarez, the Reform, and the French intervention; the Porfiriate; the Mexican Revolution; Mexico in recent years.

HIST 558. The Ancient Near East (3). General education further study course. Political and cultural history of ancient Mesopotamia, Iran, Egypt, Palestine, Syria, and Asia Minor to the death of Alexander the Great.

HIST 559 & HIST 560. Greek History (3 & 3). General education further study courses. 559: the Hellenic world from prehistoric times to the end of the Peloponnesian War. 560: the 4th century and the Hellenistic period.

HIST 562 & HIST 563. Roman History (3 & 3). General education further study courses. 562: the Roman Republic. 563: the Roman Empire.

HIST 566 & HIST 567. Medieval History (3 & 3). General education further study courses. 566: the history of Europe from the fall of the Roman Empire through the Crusades, 500 to 1200. 567: history of Europe, 1200 to 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, and the daily life of those peoples who become the English will receive particular attention.

HIST 575. The Italian Renaissance (3). General education further study course. Italian history from the 14th through the 16th centuries emphasizing cultural achievements.

HIST 576. The Reformation (3). General education further study course. Cross-listed as REL 476. The great religious changes in the 16th century in the political, social, and intellectual contexts.

HIST 577. Medieval Women (3). Deals with the lives and accomplishments of Christian women in Late Antiquity and the Middle Ages.

HIST 581. Europe, 1789-1870 (3). General education further study course. A focused survey of European social, cultural, and political history from 1789-1870. Among the topics covered are the Enlightenment, the French Revolution, industrialization, romanticism, nationalism, liberalism, socialism, the revolutions of 1848, and the role of women in European society.

HIST 582. Europe, 1871-1945 (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). General education further study course. 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. Survey of the political, social, and cultural history of Imperial Russia.

HIST 592. History of the Soviet Union (3). General education further study course. 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/Lenist ideology, industrial and agricultural economies, roles played by women, national minorities and dissidents in Soviet society, the press, literature and art, health care, and prospects for the country's future.

HIST 613. European Diplomatic History (3). General education further study course. European international politics and diplomatic practices, emphasizing the actions of the great powers and their statesmen. Versailles settlement, totalitarian aggression, appeasement, World War II, the cold war, and decolonization of Southeast Asia and the Middle East as prelude to major power involvement.

HIST 639. Religion in America (3). Covers major trends in American religious history focusing on the scholarly issues related to the study of these subjects. Students explore such subjects as religious awakenings, fundamentalism, pentecostalism, and rationalism and examine how historians have studied and disagreed over these topics.

HIST 698. Historiography (3). Review of the major schools of historical thought, philosophies of history, and eminent historians from the ancient world to the present. Required of history majors.

HIST 701. Introduction to Public History (3). Introduces the various areas of public history including historic preservation, archival administration, museum studies, litigation support, and corporate history. Students learn the philosophies, techniques, and practices that comprise the field and ways these areas interact with their academic training. Prerequisite: graduate standing or instructor’s consent.

HIST 702. Historic Preservation (3). Advanced survey of the multifaceted, multidisciplinary field of historic preservation. Presents a broad and sophisticated view of the many arms of preservation in the U.S., as well as the numerous opportunities available to trained professionals in the field. Prerequisite: HIST 701 or instructor’s consent.

HIST 703. Museum Administration (3). Addresses the many facets of museum administration from a specialist’s point of view. Covers collecting, management, law and ethics, and resource development. Gives a close view of the operations of American museums. Prerequisite: HIST 701 or instructor’s consent.

HIST 704. Interpreting History to the Public: Explaining the Past (3). Looks at ways history can be communicated to audiences, including scholarly texts, popular written histories, movies, videos, guidebooks, museums, and other similar media. Explores the differences between various forms of historical communication and assesses the ways they reach audiences. Student learn to discern various components of historical texts to use in the design of interpretation materials on their own. Prerequisite: HIST 701 or instructor’s consent.

HIST 705. Introduction to Archives (3). Introduces the basic knowledge, theory, and related skills of archival administration, including the nature of information, records, and historical documentation; the role of archives in modern society; and issues and relationships that affect archival functions. Covers the theory and skills necessary to understand and apply basic archival functions. Prerequisite: graduate standing and/or instructor’s consent.

HIST 725. Advanced Historical Method (3). Reviews basic historical research methods, the general character of field bibliographies and recent interpretations, and the techniques of professional narrative development. Required of graduate
degree students during their first year of enrollment. Prequisite: departmental consent.


HIST 733. Seminar in European History (3). Repeatable for credit. Prewquisite: departmental consent.

HIST 734. Seminar in European History (3). Repeatable for credit. Prewquisite: departmental consent.

HIST 750. Workshop in History (1-3). Repeatable for credit but does not satisfy requirements for history majors.

HIST 781. Cooperative Education in History (1-2). Graduate history students participate in internship experiences through the Cooperative Education program. Augments HIST 803. Prewquisite: instructor’s consent.

Courses for Graduate Students Only

HIST 801. Thesis Research (2).

HIST 802. Thesis (2).

HIST 803. Internship in Public History (1-2). Public history students practice their skills in summer or semester internships. Type and level of responsibility vary depending on student’s interests and work setting. Internship should be in area related to student’s Mathesis. Prewquisites: HIST 701 and consent of public history faculty.

HIST 810. Special Topics in History (1-3). Repeatable for credit to a maximum of 6 hours.

Interdisciplinary Liberal Arts and Sciences Program (LAS-I)

Fairmount College is the home for interdisciplinary courses and programs. Among these are academic service courses such as Introduction to the University, Adult Seminar, Topics in Career Exploration, and Inquiry in Liberal Arts and Sciences. In these and other courses, students learn more about themselves, university life, preparation for careers, and the foundations of liberal arts and sciences. An interdisciplinary certificate program that enables students to focus course work from several departments around a unique area—Great Plains Studies—is also offered through LAS-I. Further, the foundation courses for the Master of Arts in Liberal Studies are part of the LAS-I range of course work. More information about LAS-I, its courses, and its programs may be obtained through the LAS Advising Center.

Certificate in Great Plains Studies

Fairmount College offers a Certificate in Great Plains Studies, an interdisciplinary program for undergraduate and graduate students. This certificate is for students interested in supplementing their major field of study with a concentration of courses from a number of disciplines focusing on a common topic, the Great Plains. Non-degree adults can earn the certificate for professional or personal enrichment.

Requirements: Undergraduate students must have a 2.500 overall GPA and sophomore standing. They must maintain at least a 2.500 cumulative grade point average with no grade below C in courses applied toward the certificate.

Students may transfer 3 hours of course work 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 course work, including three required courses (LAS-I 201, 501, and 510) with the remaining courses selected from these designated courses: ANTH 612, ANTH 613, BIOL 503, BIOL 575, ENGL 434, ETH 532, ETH S 380, GEOL 562, GEOL 570, HIST 555, and HIST 536.

Lower-Division Courses

LAS-I 100. PASS Program (2). PASS, Personal and Academic Success Seminar, studies the University as a resource for personal development and the development of an individual master plan for study and self-development in the University. Created specifically for the first-time WSU student-athlete, the course 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.

LAS-I 100A. Adult Seminar (1). Aspecial 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 C/NCR only.

LAS-I 101. Introduction to the University (3). Helps students make connections with academic programs, faculty, staff, and other students; develop required academic and career competencies; and make sense of the higher education environment.

LAS-I 102. Topics in Career Exploration (2). Involves students in the career-life, educational planning, and decision-making process based on career development theories. Uses various assessments and exercises to explore values, interests, and skills as they relate to career choice. Students research occupations and gain knowledge of labor market trends.

Course content assists in exploration of college major and career path choice or change. Addresses current workplace issues. Offered C/NCR only.

Upper-Division Courses

LAS-I 150. Workshop: Special Topics (1-3). Meets identified needs of specific audiences. Offered C/NCR only.

LAS-I 190. Inquiry in Liberal Arts and Sciences (3). Introduces the liberal arts and sciences as the foundation of the university education. Team taught by faculty from the humanities, social sciences, and natural sciences. Topics of general interest from various disciplinary perspectives and ways of knowing. Students gain insights which may guide them towards majors, areas of concentration, and their own pursuit of understanding.

LAS-I 201. Introduction to Great Plains Studies (3) For students pursuing the certificate in Great Plains Studies. Acquaints students with the Great Plains region—its physical characteristics and historical and contemporary issues which concern scholars and residents of the region. Students read and discuss texts focusing on the Great Plains from various disciplinary perspectives. Prerequisite: admission to Great Plains Studies certificate program or instructor’s consent.

LAS-I 281. Cooperative Education (1-4). Provides employment opportunities for students pursuing 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 C/NCR only.

LAS-I 300. Global Issues (3). General education issues and perspectives course. Taught by faculty from many colleges and disciplines. Emphasizes challenges in the global village. May include war and peace, energy, social equality, the arts and technology, poetry and power, cultural differences, genetics, economic strategies, the environment, and health and education. May be applied to any of the disciplines of the humanities, social sciences, and natural sciences.

LAS-I 350. Workshop: Special Topics (1-3). Meets identified needs of specific audiences.

LAS-I 390. Liberal Arts and Sciences: Issues and Perspectives (3). Offers an opportunity to consider personal, intellectual, and social issues and perspectives engaging in interdisciplinary strategies employed by a team of collaborating faculty from the humanities, social sciences, and natural sciences. Prewquisites: completion of basic skills courses and at least three introductory courses from fine arts, humanities, social and behavioral sciences, and natural sciences included in the General Education Program. This Issues and Perspectives course can be applied to any of the disciplines of the humanities, social sciences, and natural sciences.

LAS-I 398. Travel Seminar (1-4). An interdisciplinary travel seminar which allows a student traveling abroad to gain credit for the study of culture, art, literature, architecture, 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.
LAS-I 480. National Student Exchange (12-18). The National Student Exchange program encourages students to attend another university for a semester while retaining full-time student status and paying regular tuition at WSU. All course work from the selected university will be transferred to Wichita State at the end of the exchange semester. At that time, the transfer courses will replace the WSU hours, with only the National Student Exchange designation remaining on the transcript. This enrollment designation documents the full-time status and the tuition payment of the student enrolled in the NSE program for the duration of the residence at the collaborating university. Repeatable for credit one time.


Courses for Graduate/Undergraduate Credit

LAS-I 501. Great Plains Experience (1-3). Offered during fall and spring semesters as a 1-hour field experience and in the summer session as a 3-hour field experience. For students in the Great Plains Studies certificate program. Visit museums, anthropological and archeological sites, nature preserves, and other places of significance in Great Plains Studies. Prerequisite: LAS-I 201 or 800 or instructor’s consent.

LAS-I 510. Great Plains Seminar (3). For students completing the Great Plains Studies certificate program. Focuses on contemporary issues and critical contexts for research. Students develop research projects appropriate to their classification as undergraduates or graduates and which reflect their particular interests in Great Plains Studies. Supplemental resources provided by faculty through lectures, consultation, course materials, and mentoring. Prerequisites: 12 hours of Great Plains Studies course work, including LAS-I 201 and 501; undergraduates must have senior status or instructor’s consent.

LAS-I 750. Workshop: Special Topics (1-3). Meets identified needs of specific audiences.

Courses for Graduate Students Only

LAS-I 800. Research Goals and Strategies (3). Introduces the methodology and practice of interdisciplinary research. Emphasizes the integration of methods native to the humanities, social sciences, and natural sciences. Develops skills required for the writing of research papers and theses. Required of all students in the Master of Arts in Liberal Studies (MALS) program during the first 12 hours of course work.

LAS-I 875. Thesis (1-6). For students who are finishing the Master of Arts in Liberal Studies. The student writing a thesis is enrolled in this course until the thesis is completed and all thesis requirements have been satisfied. Prerequisite: consent of student’s degree committee chairperson and instructor.

LAS-I 885. Terminal Project (1-6). For students who are near the end of their MALS program and involved in a terminal project. The terminal project may have many aspects such as field work, practicum, curriculum development, or some other individualized activity. The project must have been approved by the student’s advisory committee and the MALS Graduate Coordinator prior to beginning work on any terminal activity, whether thesis or project. While the terminal project allows for more creative flexibility than the thesis option, students and their terminal project committee should be aware that the standards of quality and research expectations are equivalent. The student involved in a project must be enrolled in this course until the project is completed and all project requirements have been satisfied.

Italian, Japanese, Latin

See Modern and Classical Languages and Literatures.

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 develop a program of study to answer their particular needs and interests in a focused, coherent manner. For more information, consult the WSU Graduate Bulletin.

LING 315. Linguistics. Introduction to English Linguistics (3). 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. English, History of the English Language (3). Cross-listed as ENGL 337. Linguistic and cultural investigation of the development of English. Prerequisite: LING 315 or departmental consent.

Courses for Graduate/Undergraduate Credit

LING 667. Linguistics. English Syntax (3). Cross-listed as ENGL 667 and ANTH 667. Studies the basic principles of English syntax, covering the major facts of English sentence construction and relating them to linguistic theory. Prerequisite: 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.


LING 682. Linguistics. Structure of a Selected Non-Indo-European Language (3). Language offered depends on student demand and staff availability. May be conducted as a field methods course; repeatable for credit when different languages are offered. Prerequisite: LING 315.

Group B—Linguistic Study of Specific Languages or Language Groups

LING 505A. French. Advanced Phonetics and Diction (2). Cross-listed as FREN 505. Includes articulatory phonetics, phonemes, sound/symbol correspondences, dialectal and stylistic variations. Required for future French teachers. Prerequisite: any 200-level course or departmental consent.

LING 505B. Russian. Russian Phonology (2). Cross-listed as RUSS 505.

LING 505C. Spanish. Spanish Phonetics (2). Cross-listed as SPAN 505.

LING 610. English. Old English (3). Cross-listed as ENGL 610. Studies the Old English language in enough detail to enable the reading of some prose and poetry, including parts of Beowulf in the original. Some literature, including all of Beowulf, is read in translation, with attention to important literary and cultural features of the period.
LING 635. French and Spanish. Introduction to Romance Linguistics (3). Cross-listed as FREN 635 and SPAN 635.

Group C—Areas of Contact Between Linguistics and Other Disciplines

Upper-Division Courses

LING 304. CDS. Developmental Psycholinguistics (3). Cross-listed as CDS 304.

LING 351. Linguistics and Foreign Languages (3). Cross-listed as ANTHR 351 and MCLL 351. Prerequisite: LING 151.

Courses for Graduate/Undergraduate Credit

LING 545. Psychology. Psycholinguistics (3). Cross-listed as PSY 532.

LING 651. Language and Culture (3). Cross-listed as ANTHR 651 and MCLL 661. Prerequisite: 3 hours of linguistics or MCLL 351 or 4 hours of anthropology.

LING 727. Teaching English as a Second Language (2-3). Cross-listed as ENGL 727. Discusses current methods of teaching English to non-native speakers. Students learn to analyze interlanguage patterns and to design appropriate teaching units for class and language laboratory use.


LING 741. Statistics. Directed Readings (2-3). Credit assigned to Group A, B, or C depending on content. Repeatable for credit when content varies.

Courses for Graduate/Undergraduate Credit

LING 292. Linguistics. Special Studies (2-3). Topic selected and announced by individual instructor. Credit is assigned to Group A, B, or C depending on content. Repeatable for credit when content varies.

LING 590. Linguistics. Special Studies (2-3). Topic selected and announced by individual instructor. Credit is assigned to Group A, B, or C depending on content. Repeatable for credit when content varies.

LING 595. Linguistics. Directed Readings (2-3). Credit assigned to Group A, B, or C depending on content. Repeatable for credit.

Mathematics and Statistics

Mathematics (MATH)
Mathematics is among the oldest disciplines. Throughout history, mathematics has spanned the spectrum from pure to applied areas. The ancient Greek mathematicians were interested in problems that ranged from properties of numbers to applications of mathematics to music and astronomy. The Department of Mathematics and Statistics fulfills its mission by offering a broad and representative collection of courses to give students the ability to select, with their advisor, a program that fits their needs and goals. The Department of Mathematics and Statistics offers bachelor's (BA and BS), master's (MS), and doctoral (PhD) degrees. Note: For ease of description, certain courses in mathematics and statistics are categorized in the following groups (the courses in Group R are required of all majors):

Group R: MATH 415, 511, 547, 551, 555
Group A: MATH 513, 615, 621, 690, 720, 725
Group B: STAT 460, 571, 572, 574, 576, 761, 762, 763, 771, 772, 775, 776
Group C: MATH 530, 545, 553, 640, 655, 657, 714, 751, 753, 755, 775.

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. In addition, the BS candidate must complete two additional courses from those listed in Groups B and/or C.

For the Bachelor of Science (BS) degree in mathematics, students must complete all courses in Group R and one each from Groups A, B, and C. In addition, the BS candidate must complete two additional courses from those listed in Groups B and/or C.

For the Bachelor of Science (BS) degree in mathematics with emphasis in statistics, students must complete all courses in Group R, one course in Group A, and one course in Group C. In addition, the BS candidate must complete 12 additional hours of courses in Group B which must include either STAT 571-572 or STAT 771-772, plus one more course from Groups B or C. Students under this option may select statistics courses from other departments with the due approval of the Department of Mathematics and Statistics.

For the Bachelor of Science (BS) degree with emphasis in computing, students must complete all courses in Group R. Students also must complete MATH 451 and an additional high-level programming language. In addition, the BS candidate must complete CS 300 and 320, plus five courses selected from Math 331, 553, 657, 690, 751; STAT 774; CS 312, 410, 440, 510, 540, and 560. At least three of the five additional courses must be in computer science (CS).

For students who are contemplating graduate work, it is highly recommended that they include MATH 513, 547, and 640 in their program, along with courses in one or more of French, German, or Russian. Students majoring in mathematics should consult closely with their mathematics advisor on any of these programs.

Minor. For a minor in mathematics, students must complete the calculus sequence (242, 243, 344) and take at least one additional upper-division course approved by both the Department of Mathematics and Statistics and the student's major department.

Non-credit Courses

MATH 007. Arithmetic (3). Offered Cr/NCR only. An overview and study of the basic arithmetic operations for the mature student whose previous training in arithmetic is inadequate for completion of college mathematics courses.

MATH 011. Beginning Algebra (5). Offered Cr/NCR only. Content consists of algebra topics usually covered in the first year of a standard high school algebra course. Not applicable to degree.

MATH 012. Intermediate Algebra (5). Offered Cr/NCR only. Content consists of topics usually covered in the second year of a standard high school algebra course. Prerequisite: MATH 011 or one year of high school algebra, and qualifying score in recent department placement exam. Not applicable to degree.

MATH 013. College Algebra Supplement (2). Offered Cr/NCR only. An supplement to MATH 111 to be taken concurrently with designated sections of MATH 111 to allow students 5 contact hours for mastering college algebra. Co-requisite: MATH 111.

Lower-Division Courses

MATH 111. College Algebra (3). General education basic skills course: 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 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, Quadilaterals, similar triangles, 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 122. College Trigonometry (3). Studies the trigonometric functions and their applications. Credit in both MATH 122 and 112 is not allowed. Prerequisite: MATH 111 with a 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
MATH 144. Business Calculus (3). General education introductory course. A brief but careful introduction to calculus for students of business and economics. Credit in both MATH 144 and 242 is not allowed. Prerequisite: MATH 111 or 112 with a C or better or equivalent high school preparation.

MATH 150. Workshop in Mathematics (1-3). Topics of interest to particular students and not elsewhere available in the curriculum. May be repeated for a total of 6 hours credit with departmental consent. Prerequisite: departmental consent.

MATH 211. Elementary Linear Algebra (3). Covers topics in linear algebra together with elementary applications. Prerequisite: one and one-half units of high school algebra or MATH 011.

MATH 242. Calculus I (5). General education introductory course. Analytic geometry and the calculus in an interrelated form. Credit in both MATH 242 and 144 is not allowed. Prerequisite: MATH 112 with a C or better or two units of high school algebra, and one unit of high school geometry and one-half unit of high school trigonometry, or MATH 125 and 111 with a C or better in each.

MATH 243. Calculus II (5). General education further study course. A continuation of MATH 242. Includes a study of integration and applications and an introduction to infinite series. Prerequisite: MATH 242 with a C or better.

Upper-Division Courses

MATH 300. The Evolution of Mathematics (3). A study of mathematics and mathematicians from antiquity to the present; to see how mathematics has developed from human beings’ efforts to understand the world and the extent to which mathematics has molded our civilization and culture. Since mathematics is what mathematicians do, the lives of mathematicians from various ages and countries are studied. Not a mathematical skills course.

MATH 311. Introduction to Linear Algebra (1). A study of systems of linear equations, matrices, vectors, eigenvalues and eigenvectors. Credit not allowed in both MATH 211 and 311. Prerequisite: MATH 344 or concurrent enrollment.

MATH 331. Discrete Mathematics I (3). A study of some of the basic topics of discrete mathematics, including elementary logic, properties of sets, mathematical induction, counting problems using permutations and combinations, trees, elementary probability, and an introduction to graph theory. Prerequisite: Math 111 or 211 or equivalent college-level mathematics course.

MATH 344. Calculus III (3). A continuation of MATH 243. Includes a study of multiple integration and partial derivatives. Prerequisite: MATH 243 with a C or better.

MATH 415. An Introduction to Advanced Mathematics (3). Develops the concept of proof in a setting of mathematical tools needed in advanced courses. Covers topics in number theory, algebra, and analysis. Particular attention to equivalence relations, functions, induction, and mathematical systems. Prerequisite: MATH 344 with a C or better.

MATH 451. Computational Mathematics using MATLAB (3). Introduces the use of MATLAB in computational algorithms. Abridges to upper-division courses in numerical methods and applied mathematics. Prerequisite: MATH 243 with a C or better.

MATH 480. Individual Projects (1-5). Repeatable up to 10 hours. Prerequisite: departmental consent.

Courses for Graduate/Undergraduate Credit

MATH 501. Elementary Mathematics (5). A standard course in differential equation for students of business and economics. Credit not in both MATH 242 and 144 is not allowed. Prerequisite: MATH 111 or 112 with a C or better or departmental consent.

MATH 511. Linear Algebra (3). An elementary study of linear algebra, including an examination of linear transformations and matrices over finite dimensional spaces. Prerequisite: MATH 243 with a C or better.

MATH 513. Fundamental Concepts of Algebra (3). Defines group, ring, and field and studies their properties. Prerequisites: MATH 415 and 511 with a C or better or departmental consent.

MATH 530. Applied Combinatorics (3). Basic counting principles, occupancy problems, generating functions, recurrence relations, principles of inclusion and exclusion, the pigeonhole principle, Fibonacci sequences, and elements of graph theory. Prerequisite: MATH 344 with a C or better.

MATH 531. Introduction to the History of Mathematics (3). General education issue and perspective 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 C or better in each.

MATH 545. Integration Techniques and Applications (3). Studies the basic integration techniques used in applied mathematics. Includes the standard vector calculus treatment of line and surface integrals, Green’s Theorem, Stokes’ Theorem, and the Divergence Theorem. Also includes the study of improper integrals with application to special functions. Prerequisite: MATH 344 with a C or better.

MATH 547. Advanced Calculus I (3). Covers the calculus of Euclidean space including the standard results concerning functions, sequences, and limits. Prerequisites: MATH 344 and 451 with a C or better in each.

MATH 551. Numerical Methods (3). Approximating roots of equations, interpolation and approximation, numerical differentiation and integration, and the numerical solution of first order ordinary differential equations. Some computer use. Prerequisites: MATH 344 and 451 with a C or better or departmental consent.

MATH 553. Mathematical Models (3). Covers case studies from the fields of engineering technology and the natural and social sciences. Emphasizes the mathematics involved. Each student completes a term project which is the solution of a particular problem approved by the instructor. Prerequisite: MATH 344 with a C or better or departmental consent.

MATH 555. Differential Equations I (3). A study of first order equations including separation of variables and exact equations; second order equations including the general theory of initial value problems, constant coefficients, underdetermined coefficients, variation of parameters, and special methods of solution using power series and the Laplace transform methods. A standard course in differential equation for students in the sciences and engineering. Credit not in both MATH 550 and 555. Prerequisite: MATH 243 with a C or better or departmental consent.

MATH 580. Selected Topics in Mathematics (3). Topic chosen from topics not otherwise represented in the curriculum. May be repeated up to a maximum of 6 hours credit with departmental consent. Prerequisite: departmental consent.

MATH 615. Elementary Number Theory (3). Studies properties of the integers by elementary means. Prerequisite: MATH 344 with a C or better or departmental consent.

MATH 621. Elementary Geometry (3). Studies Euclidean geometry from an advanced point of view. Prerequisite: MATH 344 with a C or better or departmental consent.

MATH 640. Advanced Calculus II (3). A continuation of MATH 547. Prerequisites: MATH 511 and 547 with a C or better in each.

MATH 655. Differential Equations II (3). A continuation of MATH 555 (but with more emphasis on theoretical issues) that covers higher order differential equations, systems of first order equations (including the basics of linear algebra), some numerical methods, and stability and behavior of solutions for large times. Prerequisite: MATH 555 with a C or better or departmental consent.

MATH 657. Optimization Theory (3). Introduces selected topics in linear and nonlinear optimization. Develops the revised simplex method along with a careful treatment of duality. Then extends the theory to solve parametric, integer, and mixed integer linear programs. Prerequisite: MATH 511 with a C or better.
MATH 690. Introduction to Mathematical Logic (3). An axiomatic development of elementary mathematical logic through first-order logic culminating in theorems on completeness and consistency. Investigates connections with Boolean algebra, formal languages, and computer logic. Prerequisite: MATH 415 or 511 with C or better or departmental consent.

MATH 713. Abstract Algebra I (3). Treats the standard basic topics of abstract algebra. Prerequisite: MATH 513 with C or better or departmental consent.

MATH 714. Applied Mathematics (3). Cross-listed as PHYS 714. A study of mathematical techniques applicable to physics and other sciences. Instructor selects topics, such as power series, infinite products, asymptotic expansions, WKB method, contour integration and residue methods, integral transforms, Hilbert spaces, special functions, and integral equations. Prerequisite: MATH 555 or instructor’s consent.

MATH 720. Modern Geometry (3). Examines the fundamental concepts of geometry. Prerequisite: MATH 513 with C or better or departmental consent.

MATH 725. Topology I (3). Studies the results of point set and algebraic topology. Prerequisite: MATH 547 with C or better or departmental consent.

MATH 743. Real Analysis I (3). Includes a study of the foundations of analysis and the fundamental results of the subject. Prerequisite: MATH 640 with C or better or departmental consent.

MATH 745. Complex Analysis I (3). Studies the theory of analytic functions. Prerequisite: MATH 640 with C or better or departmental consent.

MATH 750. Workshop (1-3). Topics appropriate for mathematics workshops that are not in current mathematics courses. May be repeated to a total of 6 hours credit with departmental consent. Prerequisite: departmental consent.

MATH 751. Numerical Linear Algebra (3). Includes analysis of direct and iterative methods for the solution of linear systems, linear least squares problems, eigenvalue problems, error analysis, and reduction by orthogonal transformations. Prerequisites: MATH 511, 547, and 551 with C or better in each, or departmental consent.

MATH 753. Ordinary Differential Equations (3). Covers existence, uniqueness, stability, and other qualitative theories of ordinary differential equations. Prerequisite: MATH 545 or 547 with C or better or departmental consent.

MATH 755. Partial Differential Equations I (3). Studies the existence and uniqueness theory for boundary value problems of partial differential equations of all types. Prerequisite: MATH 547 with C or better or departmental consent.

MATH 757. Partial Differential Equations for Engineers (3). Includes Fourier series, the Fourier integral, boundary value problems for the partial differential equations of mathematical physics, Bessel and Legendre functions, and linear systems of ordinary differential equations. Prerequisite: MATH 555 with C or better.

MATH 758. Complex and Vector Analysis for Engineers (3). An survey of some of the mathematical techniques needed in engineering including an introduction to vector analysis, line and surface integrals and complex analysis, contour integrals, and the method of residues. Not applicable toward a graduate degree in mathematics. Prerequisite: MATH 555 with C or better.

Courses for Graduate Students Only

MATH 813. Abstract Algebra II (3). A continuation of MATH 713. Prerequisite: MATH 713 or equivalent.

MATH 818. Selected Topics in Number Theory (2-3). Repeatable with departmental consent. Prerequisite: departmental consent.

MATH 825. Topology II (3). A continuation of MATH 725. Prerequisite: MATH 725 or equivalent.

MATH 828. Selected Topics in Topology (2-3). Repeatable with departmental consent. Prerequisite: departmental consent.

MATH 829. Selected Topics in Geometry (2-3). Repeatable with departmental consent. Prerequisite: departmental consent.

MATH 839. Selected Topics in Foundations of Mathematics (2-3). Repeatable with departmental consent. Prerequisite: departmental consent.

MATH 843. Real Analysis II (3). A continuation of MATH 743. Prerequisite: MATH 743 or equivalent.

MATH 845. Complex Analysis II (3). A continuation of MATH 745. Prerequisite: MATH 745 or equivalent.

MATH 848. Calculus of Variations (3). Includes Euler-Lagrange equations, variational methods, and applications to extremal problems in continuum mechanics. Prerequisite: MATH 547 or 757.

MATH 849. Selected Topics in Analysis (2-3). Repeatable with departmental consent. Prerequisite: departmental consent.


MATH 852. Numerical Analysis of Partial Differential Equations (3). Includes analysis of algorithms for the solution of initial value problems and boundary value problems for systems of PDEs with applications to fluid flow, structural mechanics, electromagnetic theory, and control theory. Prerequisite: MATH 751.

MATH 854. Tensor Analysis with Applications (3). After introducing tensor analysis, considers applications to continuum mechanics, structural analysis, and numerical grid generation. Prerequisite: MATH 545 or 757.


MATH 857-858. Selected Topics in Engineering Mathematics I and II (3-3). Advanced topics in mathematics of interest to engineering students, including tensor analysis, calculus of variations and partial differential equations. Not applicable toward the MS in mathematics.

MATH 859. Selected Topics in Applied Mathematics (2-3). Repeatable with departmental consent.

MATH 880. Proseminar (1). Oral presentation of research in areas of interest to the students. Prerequisite: major standing.

MATH 881. Individual Reading (1-5). Repeatable up to a maximum of 6 hours with departmental consent. Prerequisite: departmental consent.

MATH 941-942. Applied Functional Analysis I and II (3-3). Introduces functional analysis and its applications. Prerequisites: MATH 843 and 755 (MATH 755 may be a co-requisite).

MATH 947-948. Mathematical Theory of Fluid Dynamics I and II (3-3). Mechanics of fluid flow, momentum and energy principles, Navier-Stokes and Euler equations, potential flows, vortex dynamics, stability analysis, and numerical methods applied to fluid dynamics. Prerequisite: MATH 745.

MATH 952. Advanced Topics in Numerical Analysis (3). Advanced topics of current research interest in numerical analysis. Topics chosen at instructor’s discretion. Possible areas of concentration are numerical methods in or binary differential equations, partial differential equations, and linear algebra. Prerequisites: MATH 751, 851, and instructor’s consent.

MATH 958 & MATH 959. Selected Advanced Topics in Applied Mathematics (36-3). To pics of current research interest in applied mathematics. Repeatable for credit with departmental consent. Prerequisite: instructor’s consent.

MATH 981. Advanced Independent Study in Applied Mathematics (1-3). Arranged individual directed study in an area of applied mathematics. Repeatable to a maximum of 6 hours. Prerequisites: must have passed the PhD qualifying exam and instructor’s consent.

MATH 985. PhD Dissertation (1-9). Repeatable to a maximum of 24 hours. Prerequisite: must have passed the PhD preliminary exam.
Statistics (STAT)
No major or minor in statistics is available, but a BS degree with emphasis in statistics is offered as described under the mathematics section. Statistics courses satisfy general education requirements. As part of the 124 semester hours required for graduation, students may take up to 15 semester hours of statistics courses in addition to the 45 or 50 semester hours of course work allowed in mathematics.

Lower-Division Course

STAT 170. Statistics Appreciation (3). A nontechnical course stressing and explaining how statistics and probability help solve important problems in a variety of fields (e.g., biology, economics, education, government, health sciences, social sciences, etc.). The material is developed by examples rather than by traditional statistical methods and does not require any special knowledge of mathematics.

Upper-Division Courses

STAT 360. Elementary Probability (3). Includes probability functions, random variables and expectation of finite sample spaces. Prerequisite: MATH 111 with a C or better or equivalent.

>STAT 370. Elementary Statistics (3). General education introductory course. Surveys elementary descriptive statistics, binomial and normal distributions, elementary problems of statistical inference, linear correlation and regression. Not open to mathematics majors. Prerequisite: MATH 111 with a C or better or equivalent.

>STAT 460. Elementary Probability and Mathematical Statistics (3). General education 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 or equivalent.

>STAT 471. Probabilistic Models and Statistical Methods (3). General education further study course. Covers axioms of probability, Bayes' Theorem, random variables and their distribution, joint distributions of random variables, transformations of random variables, moment generating function, characteristic functions, central limit theorem and other topics with applications to engineering. Prerequisite: MATH 344 with a C or better or equivalent.

>STAT 746. 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 and MATH 344 and 511 with C or better in each or departmental consent.

STAT 705. Design of Experiments (3). An introduction to the theory of non-parametric statistics. Includes order statistics; one-, two-, and k-sample problems; linear rank statistics; and asymptotic efficiency. Prerequisite: STAT 572.

Courses for Graduate Students Only

STAT 574. Elementary Survey Sampling (3). General education further study course. Surveys basic statistical concepts. Covers simple, random, stratified, cluster, and systematic sampling, along with selection of sample size, ratio, estimation, and costs. Applications studied include problems from the social and natural sciences, business, and other disciplines. Prerequisite: any elementary course in statistics, such as STAT 370, SOC 501, or PSY401 with a C or better or equivalent.

>STAT 576. Applied Non-parametric Statistical Methods (3). General education further study course. Studies assumptions and needs for non-parametric tests, rank tests, and other non-parametric inferential techniques. Applications involve problems from the social and natural sciences, business, and other disciplines. Prerequisite: any elementary statistics course such as STAT 370, SOC 501, or PSY401 with C or better or equivalent.

STAT 754. Elementary Statistical Methods I (3). Covers selected topics from time series analysis including basic characteristics of time series, autocorrelation, stationarity, spectral analysis, linear filtering, ARIMA models, Box-Jenkins forecasting and model identification, classification, and pattern recognition. Prerequisite: STAT 763 with C or better or departmental consent.

STAT 757. 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 C or better or departmental consent.

Courses for Graduate Students Only

STAT 661-662. Theory of Probability I and II (3-3). The axiomatic foundations of probability theory emphasize the coverage of probability measures, distribution functions, characteristic functions, random variables, modes of convergence, the law of large numbers and central limit theorem, and conditioning and the Markov property. Prerequisites: MATH 743 and STAT 761 or 771.

STAT 576. Probability (3). A study of axioms of probability, discrete and continuous random variables, expectation, examples of distribution functions, moment generating functions, and sequences of random variables. Prerequisite: MATH 244 with C or better.

STAT 662. Applied Stochastic Processes (3). Studies random variables, expectation, limit theorems, Markov chains, and stochastic processes. Prerequisite: STAT 761 or 771 with C or better or departmental consent.

STAT 763. Applied Regression Analysis (3). Studies linear, polynomial, and multiple regression. Includes applications to business and economics, behavioral and biological sciences, and engineering. Uses computer packages for doing problems. Prerequisites: STAT 571 and MATH 344 and 511 with C or better in each or departmental consent.

STAT 777-772. Theory of Statistics I and II (3-3). An examination of stochastic independence distributions of functions of random variables limiting distributions, order statistics, theory of statistical inference, non-parametric tests, and analysis of variance and covariance. Prerequisite: MATH 545 or 547 with C or better or departmental consent.

STAT 774. Statistical Computing I (3). Trains students to use modern statistical software for statistical modeling and writing of technical reports. Examines many of the advanced features of most commercial statistical packages. Students perform complete statistical analyses of real data sets. Prerequisites: STAT 763 and 744 or departmental consent.

STAT 775. Applied Statistical Methods I (3). Covers selected topics from time series analysis including basic characteristics of time series, autocorrelation, stationarity, spectral analysis, linear filtering, ARIMA models, Box-Jenkins forecasting and model identification, classification, and pattern recognition. Prerequisite: STAT 763 with C or better or departmental consent.

STAT 776. 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 C or better or departmental consent.

Courses for Graduate Students Only

STAT 861-862. Theory of Probability I and II (3-3). The axiomatic foundations of probability theory emphasize the coverage of probability measures, distribution functions, characteristic functions, random variables, modes of convergence, the law of large numbers and central limit theorem, and conditioning and the Markov property. Prerequisites: MATH 743 and STAT 761 or 771.


STAT 872-873. Theory of Linear Models I and II (3-3). An introduction to the theory of linear models and analysis of variance. Includes multivariate normal distribution, distributions of quadratic forms, general linear models, general linear hypothesis, confidence regions, prediction and tolerance intervals, design models (1-factor and 2-factor), analysis of covariance, and components-of-variance models. Prerequisites: MATH 511 and STAT 772.
STA 787. Multivariate Statistical Methods (3). Elementary theory and techniques of analyzing multidimensional data; covers Hotelling’s T², multivariate analysis of variance, principal components analysis, linear discrimination analysis, canonical correlation analysis, and analysis of categorical data. Prerequisites: MATH 511 and STAT 772.

STA 878. Special Topics (2-3). Repeatable with departmental consent. Prerequisite: departmental consent.

STA 879. Individual Reading (1-5). Prerequisite: departmental consent.

STA 884. Statistical Computing II (3). Teaches special graphics and numerical methods needed in the analysis of statistical data. Includes advanced simulation techniques, numerical methods for linear and nonlinear problems, analysis of missing data, smoothing and density estimation, projection-pursuit methods, and genetic techniques. Prerequisites: MATH 751 and STAT 772 with C or better or departmental consent.

STA 971 & STAT 972. Selected Advanced Topics in Probability and Statistics (36:3). Topics of current research interest in probability and statistics. Repeatable for credit with departmental consent. Prerequisite: instructor’s consent.

STA 978. Advanced Independent Study in Probability and Statistics (1-3). Arranged individual directed study in an area of probability or statistics. Repeatable to a maximum of 6 hours. Prerequisites: must have passed the PhD qualifying exam and instructor’s consent.

STA 986. PhD Dissertation (1-9). Repeatable to a maximum of 24 hours. Prerequisite: must have passed the PhD preliminary exam.

Modern and Classical Languages and Literatures

The Department of Modern and Classical Languages and Literatures works to instill in students an awareness and appreciation of other languages and cultures. The department grants the Bachelor of Arts degree in modern and classical languages and literatures. Students can specialize in French, German, Latin, and Spanish. Courses are also offered in Italian and Japanese. The department also offers the Master of Arts in Spanish and participates in the Master of Arts in Liberal Studies program, which may include graduate work in French, German, Greek, Latin, Russian, and Spanish. Courses are also offered in Italian and Japanese. The department also offers the Master of Arts in Spanish and participates in the Master of Arts in Liberal Studies program, which may include graduate work in French, German, Greek, Latin, Russian, and Spanish.

A wide range of courses in language, literature, civilization, translation, and linguistics is offered on campus as well as in summer programs in Puebla, Mexico; Strasbourg and Orleans, France. (Wichita’s Sister City). 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 Orleans, France.

Retroactive Credit Policy

Qualified students may earn Fairmount College credit for previous language experience by successfully completing a language course, or courses, at the appropriate level.

Based on their previous experience, students enroll at their predicted level. Normally, predicted entry level is calculated by assuming that one year of high school language is the equivalent to one semester of college language.

Students must apply for retroactive credit during the semester in which they are enrolled in the retroactive credit eligible course(s). Deadline for application will be announced in all language classes.

If a student successfully completes the course, or courses (with a grade of C or better), the student receives the graded credit hours for that course, or courses, and the appropriate number of ungraded retroactive credit hours.

Modern and Classical Languages and Literatures: French (FREN)

Specialization. A specialization in French consists of a minimum of 33 semester hours beyond FREN 210 or its equivalent, and must include the following courses: 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 careers. In addition to the requirements for specialization, it is recommended that future teachers take courses beyond the general education requirements in other foreign languages, history, art history, English, or philosophy. It is also recommended that future French teachers spend at least a summer in a French-speaking country before student teaching.

Requirements for entering this program are:

1. Grade point average of 3.000 or higher in French
2. Special departmental approval based on demonstrated proficiency in the use of both oral and written French (based on Certification and Teacher Education Regulations issued by the Kansas State Department of Education)
3. The professional foundation courses for education required by the Teacher Education Program (see College of Education).

Minor. An minor in French consists of a minimum of 12 semester hours beyond FREN 210 and must include FREN 223, 300, 324, and one upper-division French course numbered 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, FREN 300 plus 12 hours of upper-division work are required.

These students are advised to consult with a French professor before enrolling in French courses.

High School French. Students who have completed more than two units of high school French should consult with an advisor in the French department before enrolling in French courses.

Lower-Division Courses

FREN 111-112. Elementary French (5-5). Emphasizes the four fundamental skills in language learning: understanding, speaking, reading, and writing.

FREN 150. Workshop in French (2-4). Repeatable for credit.

FREN 210. Intermediate French (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 will satisfy the LAS literature requirement. Prerequisite: FREN 210 or equivalent.

Upper-Division Courses

FREN 300. Intermediate French Readings II (3). General education further study course. Intensive reading and analysis of French literary works of all periods. Course will satisfy the LAS literature requirement. Prerequisite: FREN 223 or equivalent.

FREN 324. Intermediate Conversation and Composition (3). Improves oral and written proficiency through vocabulary acquisition and interactive grammar exercises. Prerequisite: FREN 210 or equivalent.

FREN 398. Travel Seminar in French (1-4). An interdisciplinary travel seminar that allows a student to gain credit for the study of one of the following: culture, art, literature, architecture, politics, society, science, and economics while visiting historic places of interest. Prerequisite: departmental consent.

FREN 481. Cooperative Education (1-4). Field placement integrating theory with a planned and supervised professional experience which complements and enhances the student’s academic program. Individualized programs formulated in
Courses for Graduate/Undergraduate Credit

Upper-division courses are given on a rotating basis. FREN 300 is a prerequisite for all upper-division literature and civilization courses, unless otherwise indicated. All literature courses, including FREN 223 and 300, may fulfill the LAS literature requirement.

FREN 505. French Phonetics (3). Cross-listed as LING 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.

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, (k) translation, (l) conversation, and (m) phonetics. Repeatable for credit. Prerequisite: departmental consent.

FREN 525. Advanced French Conversation (3). Designed to increase proficiency in spoken French. Assignments include oral reports, dialogs, and work in the language laboratory. Prerequisite: FREN 324 or departmental consent.

FREN 526. Advanced French Composition and Grammar (3). Emphasizes theme writing, original compositions, and detailed study of modern French grammar. Prerequisite: FREN 324 or departmental consent.

FREN 540. French Literature in English Translation (3). 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). A study of the concept of Negritude through the works of major contemporary African and Caribbean writers. No knowledge of a foreign language is necessary. May be used to satisfy the LAS literature requirement and may count toward a French major or minor if readings and papers are done in French.

FREN 551. French Civilization: The Middle Ages to the Restoration (3). Emphasizes key aspects of the civilization of France as seen in its art, architecture, political structure, social evolution, and intellectual traditions. Interdisciplinary course complements studies in French language and literature. Class work and required readings are in French. Prerequisite/co-requisite: FREN 300.

FREN 552. Contemporary French Civilization (3). Emphasizes the major events, themes, ideas, trends, and movements in French civilization since the Revolution. Interdisciplinary course complements French language and literature courses. Class work and readings are in French. Prerequisite/co-requisite: FREN 300.

FREN 560. Renaissance French Literature (3). Analyzes and discusses major French works, 1500-1600. Prerequisite: FREN 300.

FREN 631. 17th Century French Literature (3). Prerequisite: FREN 300.

FREN 632. 18th Century French Literature (3). Prerequisite: FREN 300.

FREN 633. 19th Century French Literature (3). Prerequisite: FREN 300.

FREN 634. 20th Century French Literature: 1900-1945 (3). Analyzes and discusses major works of French fiction, poetry, and drama from the Belle Epoque through World War II. Prerequisite: FREN 300.

FREN 635. Introduction to Romance Language Linguistics (3). Cross-listed as LING 635 and SPAN 635. An introduction to the historical phonology and morphology of the romance languages emphasizing French and Spanish. Prerequisite: departmental consent.

FREN 636. Contemporary French Literature (3). Analyzes and discusses major works of French fiction, poetry, and drama, 1945-present. Prerequisite: FREN 300.

FREN 726. French Composition and 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.

Course for Graduate Students Only

FREN 815. Special Studies in French (3). Prerequisite: departmental consent. Repeatable for credit.

Modern and Classical Languages and Literatures: German (GERM)

GERM 220. Continuing German I (5). General education introductory course. Grammar review and cultural readings primarily for students meeting the foreign language graduation requirement of Fairmont College. Recommended for all students with high school German and for transfer students with the college German equivalent to 112.

GERM 223. Intermediate German I (3). General education further study course. Intensive reading and discussion of short works. Prerequisite: GERM 112 with a C or better or departmental recommendation to transfer from GERM 220.

GERM 225. German Conversation (2). The development of oral fluency. Prerequisite: GERM 220, 223, or concurrent enrollment in 223.

Upper-Division Courses

GERM 324. Intermediate German Conversation and Composition (2). Emphasizes development of written skills as conversational practice continues. Prerequisite: GERM 225 or instructor’s consent.

GERM 341. German in the European Context (3). 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 344. Intermediate German II (3). General education further study course. Readings in German civilization accompanied by extensive studies of selected literary works. Prerequisite: GERM 223 or equivalent.

GERM 398. Travel Seminar in German (1-4). An interdisciplinary travel seminar that allows a student to gain credit for the study of one of the following: culture, art, literature, architecture, politics, society, science, and economics while visiting historic places of interest. Prerequisite: departmental consent.

GERM 441. Culture of Contemporary Germany (3). Study of the culture and life in the Federal Republic of Germany and the German Democratic Republic from 1945 to 1989 and the new unified Germany. Acknowledge of German is not required. Does not count toward fulfillment of language requirement.

Courses for Graduate/Undergraduate Credit

GERM 524. Advanced German Conversation and Composition (3). Prerequisite: GERM 324 or instructor’s consent.

GERM 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 344 or instructor’s consent.

GERM 750. Workshop in German. (2-4). Repeatable once for credit.

Modern and Classical Languages and Literatures: Greek (Ancient Classical) (GREEK)

Minor. A minor in Greek consists of 11 hours beyond the 111-112 level. GREEK 398 does not count toward the minor.

Lower-Division Courses

GREEK 111. Elementary Greek (5). Presents the basic grammar of Ancient Classical Greek and emphasizes early reading.

GREEK 112. Elementary Greek (5). Continues the presentation of the basic grammar of Ancient Classical Greek and emphasizes early reading.

>GREEK 223. Intermediate Greek (3). General education introductory course. Completes the presentation of basic grammar of Ancient Classical Greek and proceeds to the study of selections from the writings of Plato and Herodotus. Prerequisite: GREEK 112 or equivalent.

>GREEK 224. Intermediate Greek (3). General education further study course. Homer’s Iliad. Prerequisite: GREEK 223.

GREEK 250. Classical Mythology (3). Studies the most important myths of the Greeks and Romans. Includes the stories of creation, the gods and goddesses, the major heroes and important sagas such as Achilles, Odysseus, and the Trojan War. Sources are mainly literary, e.g., Homer, Hesiod, Vergil, and Ovid, but also includes Greek art. All readings in English; requires no previous knowledge of Latin or Greek.

Upper-Division Course

GREEK 398. Travel Seminar in Greek (1-4). An interdisciplinary travel seminar that allows a student to gain credit for the study of one of the following: culture, art, literature, architecture, politics, society, science, and economics while visiting historic places of interest. Prerequisite: departmental consent.

Modern and Classical Languages and Literatures: Japanese (JAPAN)

The following courses are offered in Japanese.

Lower-Division Courses

JAPAN 111. Elementary Japanese I (5). Introduces fundamentals of pronunciation, vocabulary building, practice in understanding and speaking phrases, reading, and writing. Also includes cultural material.

JAPAN 112. Intermediate Japanese II (5). A continuation of JAPAN 111, completing the basic course in Japanese. Prerequisite: JAPAN 111 or equivalent.

JAPAN 223. Intermediate Japanese III (5). Includes fundamentals of pronunciation, vocabulary building, practice in understanding and speaking phrases, reading, and writing. Draws examples from Japanese culture, politics, and society. Prerequisite: JAPAN 224 or equivalent.

JAPAN 225. Japanese Conversation (2). Develops oral fluency. Prerequisite or co-prerequisite: JAPAN 223.

Upper-Division Courses

JAPAN 300. Special Studies (1-3). Topic announced by instructor. Repeatable for credit. Prerequisite: instructor’s consent.

Modern and Classical Languages and Literatures: Latin (LATIN)

Specialization. A specialization in Latin consists of a minimum of 24 semester hours beyond LATIN 112 or its equivalent. LATIN 398 does not count toward the specialization in Latin.

Student Teachers. Students who plan to teach Latin should consult with the department’s professor in charge of teacher education early in their Fairmount College careers. In addition to the requirements for specialization, it is recommended that future teachers take courses beyond the general education requirements in other foreign languages, history, art history, English, or philosophy.

Requirements for this program are:
1. Grade point average of 3.000 or higher in Latin
2. Special departmental approval based on demonstrated proficiency in the use of Latin (based on Certification and Teacher Education Regulations issued by the Kansas State Department of Education)
3. The professional foundation courses for education required by the Teacher Education Program (see College of Education).

Minor. A minor in Latin consists of a minimum of 11 hours beyond the 112 level and must include at least one 200-level course. LATIN 398 does not count toward the minor in Latin.

Lower-Division Courses


>LATIN 223. Intermediate Latin (3). General education introductory course. General review of grammar with selected readings of prose and poetry. Prerequisite: LATIN 112, two years of high school Latin or departmental consent.

>LATIN 224. Intermediate Latin (3). General education further study course. Selected readings of prose and poetry. May be repeated for credit when the readings vary. Prerequisite: LATIN 223 or departmental consent.

LATIN 398. Travel Seminar in Latin (1-4). An interdisciplinary travel seminar that allows a student to gain credit for the study of one of the following: culture, art, literature, architecture, politics, society, science, and economics while visiting historic places of interest. Prerequisite: departmental consent.

Courses for Graduate/Undergraduate Credit

LATIN 224 or departmental consent is the prerequisite for all upper-division courses.


LATIN 541. Roman Lyric Poetry (3). The lyric poems of Catullus and Horace emphasizing imagery, symbolism, structure, diction, and meter.

LATIN 542. Vergil’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.
LATIN 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.

LATIN 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.


LATIN 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.

LATIN 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 Course

MCLL 351. Linguistics and Foreign Languages (3). Cross-listed as ANTHR 351 and LING 351. Introduces general linguistic principles as they apply specifically to the study, acquisition, and analysis of foreign languages offered as major specializations at WSU (French, German, Latin, and Spanish). Introduces acoustic phonetics (narrow transcription of foreign languages) and principles of phonology; morphemics and principles of morphology; and syntax and semantics. Prerequisite: LING 151 or any 3rd-semester foreign-language course.

Course for Graduate/Undergraduate Credit

MCLL 61. Language and Culture (3). Cross-listed as ANTHR 651 and LING 651. An introduction to the major themes in the interactions of language and society and language and culture, including ethnography of communication, linguistic relativity, and determinism; types of language contact; the linguistic repertoire; and cross-cultural discourse analysis. Content may vary with instructor. Prerequisite: 3 hours of linguistics or MCLL 351 or 6 hours of anthropology.

Modern and Classical Languages and Literatures: Russian (RUSS)

Minor. A minor in Russian consists of a minimum of 11 hours beyond the RUSS 210 level and must include at least RUSS 300 or 325 and one 500-level course.

Native Speakers. Native speakers are those who have completed a substantial amount of their education in a Russian-speaking country or school. Native speakers of Russian normally are not permitted to receive credit for 100- or 200-level courses. These students are advised to consult with a Russian professor before enrolling in Russian courses.

Lower-Division Courses

RUSS 110. Russian Studies (3). Cross-listed as HIST 110 and 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.

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 RUSS 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 505. 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 (intonationnye 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). Consideration of the works of one or two major authors, a literary movement, trend, or specific genre. No knowledge of Russian is necessary, although some is desirable. Repeatable once for credit. Prerequisite: departmental consent.

Modern and Classical Languages and Literatures: Spanish (SPAN)

Specialization. A specialization in Spanish consists of a minimum of 30 semester hours beyond SPAN 210 or its equivalent and must include the following courses: SPAN 220, 223, 225, 300, 325, 525, and 526, or equivalents. In addition, 12 hours must be selected from courses numbered above 500. It is strongly recommended that students specializing in Spanish take courses in related fields such as other foreign languages, art history, English, history, and philosophy.

Student Teachers. Students who plan to teach Spanish should consult with the department's professor in charge of teacher education early in their careers. In addition to the requirements for specialization, it is recommended that future teachers take courses beyond the general education requirements in other foreign languages, 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)
3. The professional foundation courses for education required by the Teacher Education Program (see College of Education).

Minor. A minor in Spanish consists of a minimum of 11 hours beyond the SPAN 210 level and must include SPAN 220, 223, 225, and 3 hours at the 500-level or above.

Native Speakers. Native speakers are those who have completed a substantial amount of their education in a Spanish-speaking country. Native speakers of Spanish are normally not permitted to receive credit for 100- and 200-level courses. To complete a specialization, SPAN 300 plus 12 hours of upper-division work are required. 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 advisor in the Spanish department before enrolling in Spanish courses.

Lower-Division Courses

SPAN 111-112. Elementary Spanish. (5-5). Emphasizes the four fundamental skills in language learning: understanding, speaking, reading, and writing.

SPAN 150. Workshop in Spanish (2-4). Repeatable for credit.

>SPAN 210. Intermediate Spanish (5). General education introductory course. Continues the four fundamental skills in language learning: understanding, speaking, reading, and writing. Emphasizes conversation and cultural readings. Prerequisite: SPAN 112, two units of high school Spanish, or departmental consent.

SPAN 215. Intermediate Spanish II (5). Intensive review of Spanish; special emphasis on conversation. Course offered only in Puebla, Mexico. Prerequisite: SPAN 112, two units of high school Spanish, or departmental consent.

SPAN 220. Intermediate Spanish Grammar and Composition (3). Prerequisite: SPAN 210 or three units of high school Spanish or departmental consent.

>SPAN 223. Selected Spanish Readings (3). General education further study course. Intensive reading of Latin-American and Spanish literary works. Also includes outside readings and reports. Course will satisfy the LAS literature requirement. Prerequisite: SPAN 210 or three units of high school Spanish or departmental consent.

SPAN 225. Spanish Conversation I (2). Prerequisite: SPAN 210 or three units of high school Spanish or departmental consent. Should be taken with SPAN 220.

Upper-Division Courses

>SPAN 300. Intermediate Spanish Readings (3). General education further study course. Intensive reading and analysis of Spanish literary works of all periods. Course will satisfy the LAS literature requirement. Prerequisite: SPAN 225 or departmental consent.

SPAN 325. Spanish Conversation II (2). Continuation of SPAN 225 with continued emphasis on fluency in Spanish and vocabulary building. Prerequisite: SPAN 225 or departmental consent.

SPAN 398. Travel Seminar in Spanish (1-4). An interdisciplinary travel seminar that allows a student to gain credit for the study of one of the following: culture, art, literature, architecture, politics, society, science, and economics while visiting historic places of interest. Prerequisite: departmental consent.

SPAN 481. Cooperative Education: Spanish (1-4). Provides a field placement which integrates theory with a planned and supervised professional experience designed to complement and enhance the student’s academic program.

Individualized programs formulated in consultation with and approved by appropriate faculty sponsors. Repeatable for credit. Offered C/N only. Prerequisite: SPAN 220 or departmental consent.

Courses for Graduate/Undergraduate Credit

Upper-division courses are given on a rotating basis. SPAN 300 is a prerequisite for all upper-division literature and civilization courses, unless otherwise indicated. All literature courses, including SPAN 223 and 300, may fulfill the general education literature requirement.

SPAN 505. Spanish Phonetics (2). Cross-listed as LING 505. Includes articulatory phonetics, phonemics, sound/symbol correspondences, dialectical and stylistic variations. Required for future Spanish teachers. Prerequisite: any 200-level course or departmental consent.

SPAN 515. Major Topics in Spanish (1-4). Special studies in (a) language, (b) literary reports, (c) commercial Spanish, (d) the language laboratory, (e) music, (f) composition, (i) problems in teaching Spanish, (j) advanced conversation. Repeatable for credit. Prerequisite: departmental consent.

SPAN 525. Spanish Conversation III (2). Increases proficiency in spoken Spanish. Assignments include oral reports and dialogs. 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 52b.

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 620. Survey of Latin-American Literature (3). Main currents of Latin-American literature, 1500-1800. Prerequisite: SPAN 300 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. Prerequisite or co-requisite: SPAN 300 or departmental consent.

SPAN 627. Latin-American Civilization (3). Intensive study of Latin-American culture, including the historical and geographical factors of its development and its contributions to world civilization. Prerequisite or co-requisite: SPAN 300 or departmental consent.

SPAN 628. Contemporary Latin-American Theater (3). A study of contemporary theater, 1900-present. Prerequisite: SPAN 300 or departmental consent.

SPAN 631. Latin-American Short Story (3). Study of the main writers in contemporary Latin-American literature. Prerequisite: SPAN 300 or departmental consent.

SPAN 635. Introduction to Romance Linguistics (3). Cross-listed as FREN 635 and LING 635. An introduction primarily to the historical phonology and morphology of the romance languages emphasizing French and Spanish. Prerequisite: departmental 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 750. Workshop in Spanish. (2-4). Repeatable for credit.
Courses for Graduate Students Only

SPAN 801. Spanish Linguistics (3). Historical and structural study of the Spanish language.

SPAN 805. Directed Readings in Spanish (1-4). Readings vary according to the student’s preparation. Includes preparation of reports, literary critiques, and special projects in linguistics.

SPAN 826. Spanish Grammar and Stylistics (3). Intensive study of advanced grammar and stylistic usage.

SPAN 827. Latin American Civilization and Culture (3). Introduction to historical and cultural development in Latin America, exploring the legacy of the Spanish encounter/conquest. Emphasizes Spanish colonization. Perequisite: graduate standing.

SPAN 831. Seminar in Spanish Literature (3). (a) Middle Ages, (b) Renaissance, (c) Golden Age theater, (d) Cervantes, (e) modern novel, (f) Generation of ’98, (i) realism, (j) 20th century poetry, (k) criticism, (l) literature, (m) 20th century theatre, and (n) contemporary Spanish novel.

SPAN 832. Seminar in Latin-American Literature (3). (a) colonial period, (b) contemporary novel, (c) short story, (d) poetry, (e) modernism, (f) essay, (i) theater, (k) Latin-American literature.

Philosophy (PHIL)
The study of philosophy is relevant to all aspects of life and can be pursued fruitfully at many levels. Philosophical thought may direct itself to such diverse topics as the nature of reality, the conditions of knowledge, the justifications for political authority, the reality of subatomic particles, the existence of God, the criteria of aesthetic evaluation, the structure of logical reasoning, and the foundations (if any) of morality. Because of the breadth of the philosophical enterprise, the study of philosophy can be approached from many directions and need not involve a hierarchy of prerequisites. Philosophy majors pursue many careers—teaching, law, medicine, city management, and sales. The philosophy department reflects the breadth and diversity of the philosophical enterprise and offers a wide variety of courses.

Major. Amajor requires a minimum of 27 hours of philosophy courses, at least 15 of which must be in courses numbered 300 or above. Each philosophy major must meet with a departmental advisor at least once a semester to plan or review a program of study. These programs are designed in terms of the individual student’s interests and future plans. Up to 12 hours of philosophy courses taken before the decision to major in philosophy may count toward a major. Additional hours may be counted with the advisor’s consent.

Minor. A minor consists of 15 hours of philosophy courses, selected in consultation with a departmental advisor, that orient students to the philosophic aspects of their major fields.

Lower-Division Courses

>PHIL 100. The Meaning of Philosophy (3). General education introductory course. An exploration of the meaning of philosophical activity. Through an examination of several basic interpretations of the distinguishing intentions, characteristic procedures, and essential functions of the philosophic endeavor, course introduces some of the fundamental problems and possible values of philosophy. Develops a broad understanding of the meaning of philosophy as a diverse and self-critical historical enterprise.

>PHIL 125. Introductory Logic (3). General education introductory course. Deals with the uses of logical concepts and techniques to evaluate and criticize reasoning. Studies some elementary systems of formal logic. Arguments evaluated are drawn from such diverse fields as law, science, politics, religion, and advertising.

PHIL 129. University Experience (3). An examination of the structure, process, and problems of university education in the contemporary setting. Attends especially to the personal, moral, and spiritual problems and opportunities presented by the modern university experience. Provides clarification and guidance in understanding the university and in choosing one’s own future.

>PHIL 144. Moral Issues (3). General education introductory course. An introduction to philosophical thought about ethics. Discusses a number of contemporary moral issues and considers various philosophical approaches to their solutions.

PHIL 150. Workshop in Philosophy (1-2). Short-term courses with special philosophical emphases.

Upper-Division Courses

>PHIL 300. Science and the Modern World (3). General education issues and perspectives course. Develops an understanding of the methods and accomplishments of science and how these have affected the way people understand themselves, society, and the universe. The approach is both historical, with respect to the re-creation of the pre-scientific world view and the developments of science, and analytic with respect to understanding the goals, methods, and limits of contemporary science. No prerequisite but prior completion of general education requirements in science is desirable.

>PHIL 301. Language and Philosophy (3). General education further study course. Cross-listed as LING 301. Examines the relationships between philosophy and language. Focuses on questions such as: What is the relation between language and thought? Language and the world? What can the study of language contribute to the resolution of philosophical problems?

>PHIL 302. Values and the Modern World (3). General education issues and perspectives course. Examines the philosophical pressures on values wrought by rapid modern cultural and technological change. Explores the relations between social values and social institutions, provides a framework for critically and objectively thinking about moral values, and considers various standards proposed for resolving moral dilemmas.

>PHIL 303. Nineteenth Century Philosophy (3). General education further study course. Astudy of selected 19th century philosophers or systems of thought such as Fichte, Schelling, Hegel, Schopenhauer, Marx, Mill, Bradley, Kierkegaard, Peirce, Nietzsche, Comte, Dilthey, Schleiermacher, idealism, materialism, positivism, empiricism, and pragmatism.

>PHIL 305. Analytic Philosophy (3). General education further study course. Studies the rise of analytic philosophy in the 20th century, emphasizing the themes unifying philosophers who originated modern philosophical analysis. Includes the nature of analysis and the relationship between analysis and classical philosophical problems, such as the nature of reality, the nature of knowledge, the nature of language, the nature of morality.

>PHIL 311. Philosophy of Law (3). General education further study course. An introduction to philosophical problems arising in the theory and practice of law. Includes the objective basis of legal systems, the relationship between morality and legality, the justifiability of civil disobedience, the limits of legal constraints on the individual, and the nature and justification of punishment. Attention to classical and contemporary readings.

>PHIL 313. Political Philosophy (3). General education further study course. Examines various philosophical issues concerning political systems. Discusses issues such as the nature of political authority, the rights of individuals, constitutionalism, and civil disobedience.

>PHIL 315. Late Modern Philosophy (3). General education further study course. Astudy of 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. Astudy of the methods, goals, and world views of the sciences with attention to such topics as the structure and evaluation of scientific theories, the nature of explanation, the dynamics of scientific revolutions, and the impact of science on human society and values.

>PHIL 322. Early Modern Philosophy (3). General education further study course. Studies philosophical thought in the period from the Renaissance through the 17th century with selections from philosophers such as Pico, Vico, Galileo, Cusanus, Telesio, Erasmus, More, Hobbes, Bacon, Machiavelli, Descartes, Spinoza, Leibniz, Malebranche, and Locke.

PHIL 325. Formal Logic (3). Cross-listed as LING 325. Studies systems of formal logic including sentential and predicate logic. Emphasizes the uses of these systems in the analysis of arguments.
PHIL 327. Bioethics (3). General education further study course. Examines ethical issues related to health care such as truth-telling to patients, confidentiality, euthanasia, abortion, prenatal obligations, and distribution of health care.

PHIL 331. Ancient Greek Philosophy (3). General education further study course. Examines the development of Greek philosophy in its major phases, including an exploration of the 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 WOM S 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. Cross-listed as REL 346. Examines some basic religious problems such as the nature and grounds of religious belief, religious language, the existence and nature of God, human immortality, and the problem of evil.

PHIL 350. Ancient Chinese Philosophy (3). Surveys Chinese philosophy during the pre-Han period, roughly 500-200 BCE. Includes major figures Confucius, Mencius, Mo-Tzu, Hsun-Tzu, Chuang-Tzu, Lao-Tzu, and Han-Fei-Tzu. Includes major positions Confucianism, Mohism, Legalism, Taoism, and Dialecticalism.

PHIL 354. Ethics and Computers (3). General education further study course. Ethics with application to the ethical issues which may arise from the use of computers, including the moral responsibility of computer professionals for the effect their work has on persons and society; the moral obligations of a computer professional to clients, employer, and society; the conceptual and ethical issues surrounding the control and ownership of software; and the justifiability of regulation of the design, use, and marketing of computer technology. Prerequisite: junior standing or departmental consent.

PHIL 360. Ethical Theory (3). General education further study course. Astudy of selected topics in ethics. Investigates issues such as the meaning and justification of moral judgments, the nature of morality, the relations between normative categories and the concept of justice, and the problem of revolution in moral schemes. Prerequisite: one course in philosophy.

PHIL 375. Philosophy of the Arts (3). General education further study course. Intensively examines one or more fundamental problems or themes in the philosophy of art or in the special aesthetics of painting, music, sculpture, literature drama, movies, and so forth. Includes the problem of tragedy, the character of the aesthetic attitude, the function of the arts, the legitimacy of general art theory, the presuppositions of specialized art theory, the creative act, art and truth, art and life, and the nature and function of art criticism.

PHIL 385. Engineering Ethics (3). General education further study 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 r esearch; engineering and environmental issues; and engineering in a global context.

PHIL 400. Honors Seminar (3). Cross-listed as HNRS 400. An honors course on a special topic, to be announced. Repeatable for credit up to 6 hours. Prerequisite: honors student or departmental consent.

PHIL 459. Truth and Reality (3). An examination of philosophical theories of truth, including the correspondence, pragmatic, and deflationary theories. Topics to be covered include skepticism, realism and anti-realism, and social constructionism. Reading may include selections from figures such as James, Peirce, Dewey, Wittgenstein, Russell, Tarski, Quine, Davidson, Austin, Strawson, Field, Hacking, and Horwich.

PHIL 421. Philosophy of Mind (3). Critically examines Courses for Undergraduate Credit.

PHIL 518. Recent British-American Philosophy (3). Examination of philosophical ideas and movements in recent British and American philosophy. Discusses movements such as logical positivism, pragmatism, ordinary language philosophy, and analytic philosophy. Readings are selected from figures such as Russell, Wittgenstein, Pierce, Dewey, and Quine.

PHIL 519. Empiricism (3). A study of the philosophical views that emphasize sensory experience rather than reasoning as a source of knowledge with particular attention to the philosophies of Hobbes, Locke, Berkeley, Hume, and Mill.

PHIL 540. Theory of Knowledge (3). A critical examination of the nature of knowledge and of the philosophical problems concerning skepticism; knowledge of the self; material objects; other minds; the past, present, and future; universals; and necessary truths. Includes selections from both historical and recent writings. Prerequisite: one course in philosophy.

PHIL 546. Rationalism (3). A study of the philosophical views that emphasize reasoning rather than sensory experience as the source of knowledge with particular attention to the philosophies of Descartes, Spinoza, and Leibniz.

PHIL 549. Topics in Ancient Philosophy (3). Explores one decisive issue in philosophy from the time of Thales through the Stoics. The examination of an issue may 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 relations of social science with natural science and philosophy, methodological problems peculiar to social science, the nature of sound explanation concepts, and constructs and the roles of mathematics and formal theories in social science.


PHIL 585. Studies in a Major (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.

Courses for Graduate Students Only

PHIL 805. Business and Morality (3). Critically examines moral issues particularly germane to business. Includes theories of distributive justice, theories of property rights, the role of business as a social institution, employment rights and obligations, environmental issues, and theories of socially responsible investment practices. Readings from classical and contemporary authors.

PHIL 816. Ethics and Psychology (3). Cross listed as PSY 816. An in-depth analysis of moral issues that arise in the profession of psychology. Provides a detailed familiarization with current moral controversies and develops ethical reasoning skills that will enable one to address new issues as they arise. Representative topics include: informed and voluntary consent, rights of human research subjects, privacy and confidentiality, assessment, conflicting obligations, ownership of research results, multiple relationships in teaching, research and practice, conflicts between therapeutic and forensic roles, objectivity in research, the nature and boundaries of teaching psychology, etc.

PHIL 850. Directed Reading (3). For the graduate student desiring independent study and research in an area of special interest. May be repeated for credit. Prerequisite: departmental consent.
Physics (PHYS)

Physics is the fundamental science—it is the study of matter and energy and their interactions. Physics is the basis for all science and for all applied science and engineering. Physicists study everything from elementary particles to galaxies, from semiconductors to chaos.

Because physics is the basic underpinning for all of science and technology, physics majors have many career alternatives. Many continue their education at graduate and professional schools—in physics or in chemistry, biology, geology, engineering, medicine, law, or business. Those who enter the job market directly find their knowledge and technical skills, particularly in problem solving, modeling, computers, and electronics, to be strong selling points.

Major. The following courses are required for a physics major: PHYS 213-214 or 313-314, 315-316, 351, 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; and 5 additional hours in chemistry are required. Two semesters of foreign language, or equivalent, are also required.

Chemical Physics Option. A student majoring in physics may select a chemical physics option. This option requires four courses in chemistry, beyond the 111-112 sequence, in place of upper-division physics electives. With department approval, the chemistry courses could substitute for required courses covering similar topics.

Engineering Physics Option. A student majoring in physics may select an engineering physics option. This option requires four courses approved by the physics department from a given engineering department in place of upper-division physics electives. With department approval, the engineering courses could substitute for required courses covering similar topics.

Other Options. Other programs are available which provide the student an opportunity to combine the study of physics with an interest in another area. On an individual basis, students have included interests in mathematics, geology, computer science, biological sciences, business, and education.

Minor. A minor in physics consists of PHYS 213-214 or 313-314-315-316 and at least 6 additional hours of physics courses numbered above 500.

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 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 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 198. Discovery in Astronomy (3). Discusses a selected topic in astronomy to develop an understanding of the discoveries and problems of modern astronomy. Primarily for general students with little or no background in a science or math. See course schedule for topic each semester.

PHYS 213. General College Physics I (5). 4R; 3L. General education introductory course. Mechanics, heat, and wave motion. For students with a working knowledge of algebra and trigonometry but who have had no calculus. Prerequisite: high school trigonometry or MATH 112.

PHYS 214. General College Physics II (5). 4R; 3L. General education further study course. A continuation of PHYS 213. Electricity, light, and modern physics. Prerequisite: PHYS 213 or 313.

Upper-Division Courses

PHYS 213. University Physics I (4). General education introductory course. The first semester of a calculus-based physics sequence. Studies mechanics, heat, and wave motion. High school physics or PHYS 151 is assumed as prerequisite for this course. Natural science majors are required to take the lab, PHYS 213, that accompanies this course. Credit is not given for both PHYS 213 and 313. Co-requisite: MATH 243.

PHYS 214. University Physics II (4). General education further study course. The second semester of a calculus-based physics sequence. Studies electricity, magnetism, and light. Natural science majors are required to take the lab, PHYS 213, that accompanies this course. Credit is not given for both PHYS 214 and 314. Prerequisites: Math 243 with a grade of C or better and PHYS 213 with a B or better or PHYS 313.


PHYS 320. Scientific Thinking (3). General education issues and perspectives course. How science, particularly physics, is done. How do we know what we know? What do we mean when we say, as scientists, that we understand a phenomenon? How do we approach a problem? Emphasizes the nature of science rather than particular theories. Gives an appreciation of science as a human intellectual activity and of the picture that modern physics gives us of the universe. No prerequisites.

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 481. Cooperative Education in Physics (1-4). Complements and enhances the student’s academic program by providing an opportunity to apply knowledge gained through course work 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/No Cr only. Prerequisite: departmental consent.

Courses for Graduate/Undergraduate Credit

PHYS 501. Special Studies in Physics for Educators (1-3). 3L. A series of courses covering basic physical concepts which provide physical science background for teachers. Repeatable for a maximum of 5 hours. Prerequisite: in-service or pre-service 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. Co-requisite: PHYS 551.

PHYS 517. Electronics Laboratory (2). 1R; 3L. Experiments in electronics that treat some of the applications of electronics in scientific research. Experiments cover the uses of vacuum tubes, transistors, IC, and digital circuits. Prerequisite: PHYS 514.

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 or 314 or departmental consent. Co-requisite: MATH 344.

PHYS 555. Modern Optics (3). Geometrical and physical optics, coherence theory, and Fourier optics. Additional topics
may include radiation, scattering, optical properties of solids, and optical data processing. Prerequisites: PHYS 214 or 314 and MATH 344.

PHYS 600. Individual Readings in Physics (1-3). Repeatable but total credit may not exceed 6 hours for physics majors. Prerequisite: departmental consent.

PHYS 601. Individual Readings in Astrophysics (1-3). Studies several topics in astronomy and astrophysics in depth. Lectures, independent readings, and student projects may be assigned. May be repeated up to 6 hours. Prerequisite: instructor’s consent.

PHYS 616. Computational Physics Laboratory (2). 1R; 2L. Provides a working knowledge of computational techniques with applications in both theoretical and experimental physics, including a brief introduction to the FORTRAN language. Prerequisites: PHYS 551 and MATH 555.

PHYS 621. Elementary Mechanics (3). Motion of a particle in one and several dimensions, central forces, the harmonic oscillator, and the Lagrangian formulation of mechanics. Prerequisites: PHYS 214 or 314 and MATH 344 with grades of C or better.

PHYS 631. Electricity and Magnetism (3). Direct and alternating currents; electric and magnetic field theory, including an introduction to Maxwell’s electromagnetic wave theory. Prerequisites: PHYS 214 or 314 and MATH 344 with grades of C or better.

PHYS 641. Thermodynamics (3). The laws of thermodynamics, distribution functions, Boltzmann equation, transport phenomena, fluctuations, and an introduction to statistical mechanics. Prerequisites: PHYS 214 or 314 and MATH 344.

PHYS 651. Quantum Mechanics (3). Introduction to quantum mechanics, the Schrödinger equation, elementary perturbation theory, and the hydrogen atom. Prerequisite: PHYS 551.

PHYS 681. Solid State Physics (3). A one-semester introduction to solid state physics, which explores and explains—in terms of the microscopic processes that produce them—the thermal, mechanical, and electronic properties of solids. Discusses practical applications and interdisciplinary material. Prerequisite: PHYS 551.

PHYS 800. Individual Readings (1-3). Repeatable for credit up to 3 hours. Prerequisites: 30 hours of physics and departmental consent.

PHYS 801. Selected Topics in Physics (2-3). Repeatable for credit up to 6 hours. Prerequisite: departmental consent.

PHYS 807. Seminar (1). Review of current periodicals; reports on student and faculty research. Repeatable for credit up to 2 hours. Prerequisite: 20 hours of physics.

PHYS 809. Research (1-3). Repeatable for credit up to 6 hours.

PHYS 811. Quantum Mechanics (3). The Schrödinger and Heisenberg formulations of quantum mechanics. Applications include rectangular potentials, central forces, and the harmonic oscillator. Also includes spin, time independent and time dependent perturbation theory. Prerequisites: PHYS 621 and 651 or departmental consent and MATH 555.

PHYS 821. Classical Mechanics (3). The Lagrangian, Hamiltonian, and Hamilton-Jacobi methods of mechanics and an introduction to variational calculus. Applications selected from central forces, rigid bodies, relativity, small oscillations, and continuous media. Prerequisites: PHYS 621 and MATH 555.

PHYS 831. Classical Electricity and Magnetism (3). Maxwell’s equations with application to static electricity and magnetism. Also may include electromagnetic fields, vector potentials, Greens functions, relativity, optics, and magneto-hydrodynamics. Prerequisites: PHYS 631 and MATH 555.

PHYS 871. Statistical Mechanics (3). An introduction to the basic concepts and methods of statistical mechanics with applications to simple physical systems. Prerequisites: MATH 555 and PHYS 681.

PHYS 881. Solid State Physics (3). Second course in solid state physics for students who have had an introduction to the subject. Transport, dielectric and optical properties, magnetic properties, superconductivity, and applications to semiconductor devices. Prerequisites: MATH 555, PHYS 651 and 681, or departmental consent.

Political Science (POL S)

Politics—a means of managing conflict and distributing the materials of society to its members—applies to everyone because everyone lives in society and conflict exists in every society. This fact led the Greek philosopher Aristotle to observe centuries ago that “man by nature is a political animal.” While contemporary political scientists approach the study of politics in a variety of ways, all agree that politics is a central characteristic of human activity.

Political science students at Wichita State University take courses in at least four of five subject areas: (1) American politics and institutions, (2) comparative politics, (3) international politics, (4) political theory and philosophy, and (5) public administration. Most political science majors supplement their curriculum by taking elective hours in the humanities—history, philosophy, and literature, for example—and in other social sciences, such as economics, anthropology, sociology, and psychology. The department also recommends that students take courses in statistics and computer applications.

Students with political science degrees may become practicing politicians or they may pursue careers in public administration, government service, law, journalism, business, or teaching at the secondary or college level.

The political science degree program at Wichita State is designed to accommodate these career interests as well as others. The requirements for the major are flexible enough to permit students to concentrate in one or two areas.

Major. A major consists of POL S 121 and 30 additional hours, including at least one course in four of the five groups below.

Minor. A minor consists of POL S 121 and 12 additional hours, at least 6 of which must be in upper-division courses.

- Group 1, Political Theory and Philosophy—POL S 223, 345, 444, or 547
- Group 2, American Politics—POL S 315, 316, 317, 318, 319, 358, 551, or 552
- Group 3, Comparative Politics—POL S 226, 320, 330, 523, 524, or 525
- Group 4, International Politics—POL S 335, 336, 338, or 534
- Group 5, Public Policy and Administration—POL S 321, 505, 506, 533, 564, 580, or 587

Related Fields. Because of the changing nature of the social sciences and because of their increasing applicability in both the public and private sectors, political science majors should take appropriate courses in other social sciences, particularly ECON 201-202, statistics, and computer science.

Public Administration Emphasis in Political Science. The goal of this emphasis is to provide students an educational foundation for jobs at basic levels of public service and for graduate study in public administration. Students should note that an undergraduate degree is usually not considered sufficient educational preparation for a professional career in this field.

Political Science (33 hours)—POL S 121, 232, 319, 321, and 580; students must also elect two of the following courses—POL S 315, 316, 317, and 551; elect one course from POL S 226, 320, 330, 523, and 524; elect one course from POL S 335, 336, 337, 533, and 534; earn a minimum of 3 hours of internship, POL S 490; and complete the 33-hour requirement with political science electives.

Other social sciences (12 hours)—ECON 201 and 202; one course from among ANTH 102 and ETH S 100 or 210; either PSY 111 or SOC 111.

Other requirements (15-16 hours)—one of the following courses—ECON 231, SOC 501, STAT 370, or SUPA 301; one of the following courses—SOC 312 or SUPA 307; both ACCT 210 and 220; and one of the following courses—CS 105, DS 495, or PADM 625.

Electives (12 hours)—ENGL 210; HIST 131 and 132; PHIL 144; SOC 334; ACCT 260; FIN 340 and 612; HRM 466, 664, and 666; MGMT 360, 362, 430, and 462; POLS 560; SUPA 501.

Lower-Division Courses

POL S 103. Games Nations Play: Problems in International Relations (3). Familiarizes students with a number of international problems to develop a sensitivity to international problems that will be a part of their lives and to create a
framework in which the students can analyze the international problems they encounter in the future.

POL S 110. Russian Studies (3). Cross-listed as RUSS 110 and HIST 110. Team-taught by faculty from history, political science, and modern and classical languages and literatures. Prepares students wishing to pursue additional courses and/or programs in Russian history, Russian language and literature, Russian government and politics, and/or international relations, including business. Covers medieval, czarist, Soviet, and present day (post-Soviet) Russia.

>POL S 121. American Politics (3). General education introductory course. An analysis of the basic patterns and structure of the American political system emphasizing policies and problems of American politics.

POL S 150. Political Science Workshop (1-3). Prerequisite: instructor’s consent.


>POL S 220. Introduction to International Relations (3). General education further study course. Examines approaches to the study of international relations. Includes foreign policy, international conflict and conflict management, international organizations and law, development, and globalization. Either POL S 220 or 336, but not both, may be accepted toward a major in history.

>POL S 226. Comparative Politics (3). General education introductory course. Analyzes the basic patterns and structures of Western democratic and political systems, transitional systems, and dictatorial or totalitarian systems.

>POL S 232. Basic Ideas in Political Theory (3). General education issues and perspectives course. Shows the direct relationship between political philosophy and practical political structures and policies. Examines the political philosophies of six important Western philosophers at an introductory level. Studies different models of democracy to demonstrate the relationship between a set of basic philosophic assumptions and the political society that seems appropriate to that set of assumptions. Examines one or two major political issues to illustrate the various kinds of solutions that may be suggested by different political philosophies.

Upper-Division Courses

>POL S 315. The Presidency (3). General education further study course. Focuses upon the evolution of the presidential office, the recruitment of presidents, and the nature of presidential power.

>POL S 316. The Congress (3). General education further study course. Focuses on the Congress with particular attention to interest articulation at both state and national levels.

>POL S 317. Urban Politics (3). General education further study course. Analyzes politics in urban areas, including the nature and distribution of community power, influence and leadership, the nature of community conflict, the formation of policy, urban problems, and political solutions and trends in urban politics.

>POL S 318. Political Parties (3). General education further study course. The role of political parties in the American political decision-making process at the national, state, and local levels.

>POL S 319. State Government (3). General education further study course. Examines the role of the states in the federal system and compares state politics and their political institutions.

>POL S 320. Politics of Developing Areas (3). General education further study course. Surveys the political systems in Latin America, Africa, the Middle East, and south and southeastern Asia. Special attention to colonialism as a system, the effects of colonialism, and patterns of emerging nations.

>POL S 321. Introduction to Public Administration (3). A general survey of the scope and nature of public administration; policy and administration; administrative regulations and adjudication; organization and management; budgeting and fiscal management; public personnel administration; political, judicial, and other controls over the administration.

>POL S 325. Women in the Political System (3). Cross-listed as WOM S 325. Examines the political process of policy making using policies of current interest concerning women. Examines the association of societal gender role expectations with existing and proposed public policies that pertain to women’s lives. Prerequisite: 6 hours of social science or instructor’s consent.

>POL S 330. Post-Communist Europe (3). Systematically studies contemporary political developments in the former Soviet Union and East Europe. Examines major policy-making institutions and processes and considers the fundamental principles on which the political system is based. Includes selection of leaders and their roles in policy-making; legislative bodies; organization and representation of interest groups; political parties and elections; political aspects of the educational system, the media, religious institutions, and ethnicity.

>POL S 336. International Organizations (3). General education further study course. Focuses on the role of international organizations in the international system. Emphasizes the United Nations. Also covers some regional or regionalizations. Either POL S 220 or 336, but not both, may be accepted toward a major in history.

>POL S 337. Causes of War and Peace (3). General education further study course. This course explores the causes of war on three different levels of analysis: international, domestic, and individual. It examines historical conflicts as well as more recent wars, and the diplomatic efforts that have been made to achieve lasting peace settlements.

>POL S 345. Classical Medieval Political Theory (3). General education further study course. Examines the beginnings of Western political philosophy through works of Plato and Aristotle. This original body of political ideas dominated the Western world for more than 2,000 years. Traces the changes in emphasis that occurred in this tradition through the Roman Stoics and the religious philosophers of the Middle Ages. Familiarity with these early political ideas is a major contribution to understanding subsequent political philosophies.


>POL S 358. American Political Thought (3). General education further study course. Considers selected topics in the development of political ideas in the United States.

>POL S 390. Special Topics in Political Science (1-3). General education further study course. An analysis of selected titles in political science in a seminar setting. Content varies depending upon the instructor. Repeatable for credit.

>POL S 398. Directed Readings (1-3). For exceptional students to meet their needs and deficiencies. Repeatable for credit. Prerequisites: senior standing and departmental consent.

>POL S 444. Modern Political Theory (3). General education further study course. Continues the study of Western political philosophy beginning with the decisive break with the classical tradition made by Machiavelli early in the 16th century. Studies major philosophers Hobbes, Locke, and Rousseau, known as philosophers of the social contract who exercised a great influence on the creation of the American political system. Also studies Marx, a political thinker who 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.

>POL S 481. Cooperative Education in Political Science (1-3). Provides practical experience to complement the student’s more formal political science curriculum. Student programs must be approved by the department. Offered C/NC only.

>POL S 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 of ered each spring semester. Prerequisites: sophomore or upper-class standing; Pol S 121 or equivalent, and instructor’s consent.

Courses for Graduate/Undergraduate Credit

>POL S 523. Government and Politics of Latin America (3). General education further study course. An examination of the
political institutions and processes that currently exist in the Latin American republics. Emphasizes the social, economic and psychocultural factors affecting these institutions and processes.

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. Emphasizes the roots of the political system, the system as it is now; and the goals China is striving to realize. Some assessment about the future development of communism in China. Includes Chinese communism and the ideological heritage; political culture; political leadership; leadership succession; political participation; the Chinese Communist Party; political communications and socialization; legal developments; policy choices; and major events, such as the Hundred Flowers Campaign, Great Leap Forward, and the Proletarian Cultural Revolution.

POLS 533. U.S. Foreign Policy (3). General education further study course. This course explores the dynamic decision making process in the development of U.S. foreign policy. It examines the variety of actors involved, including the military, the State Department, the President, and others. Bilateral as well as global policy issues are examined.

POLS 534. Problems in Foreign Policy (3). General education further study course. Examines domestic and international problems associated with U.S. foreign policy.

POLS 547. Contemporary Political Theory (3). General education further study course. Introduces the radically new ideas that emerged in the last century as a result of Darwin's theory of evolution, the doctrine of historicism, and the growth of modern science and explores their impact upon political thought. Although the multiplicity of philosophies makes generalization difficult, most of them draw strength from common sources. Studies philosophers such as Hans Kelsen, William Barrett, Frederich Nietzsche, and John Dewey. Covers the importance of these new philosophies upon political structures and issues.

POLS 551. Public Law (3). General education further study course. An analysis of the role of appellate courts—especially of the U.S. Supreme Court—in the American political system. Emphasizes judicial review of state and federal legislation, the separation of powers, federalism, the taxing power, and the commerce clause.

POLS 552. Civil Liberties (3). General education further study course. An analysis of the role of the appellate courts—especially of the U.S. Supreme Court—in the American political system. Emphasizes the guarantees of the Bill of Rights and the 14th Amendment.


POLS 600. Senior Seminar (3). Required of all political science majors. Includes segments on each of the four major fields of the discipline: American politics, comparative politics, international relations, and political theory, so students can integrate their prior learning experiences within the discipline. Prerequisites: senior status; 18 hours of POLS courses.

POLS 700. Advanced Directed Readings (3). Repeatable for credit. Prerequisite: departmental consent.

POLS 701. Method and Scope of Political Science (3). Emphasizes philosophy of science and methodology (as distinguished from method and technique) and exposes students to recent works of methodological import in the various subfields within the discipline. Prerequisite: departmental consent.

POLS 703. Professional Seminar in Political Science (3). Introduces entering graduate students to the various subfields of the discipline. Should be taken the first or second semester of graduate study.

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.

Courses for Graduate Students Only

POLS 810. Seminar in Comparative Government (3). The comparative study of selected aspects of the politics and institutions of foreign governments. Prerequisite: departmental consent.

POLS 835. Seminar in International Relations (3). Analysis of special problems in, and approaches to, the study of international relations. Prerequisite: departmental consent.

POLS 856. Seminar in American Politics and Institutions (3). Analytical study of selected topics in American political behavior emphasizing individual research. Repeatable for credit when content differs substantially. Prerequisite: departmental consent.

POLS 865. State and Local Government Finance (3). Cross-listed as ECON 865, HIST 865, and PADM 865. An analysis of state and local government expenditure and revenue systems with an introduction to state and local financial administration. Prerequisite: PADM 765 or instructor's consent.

POLS 867. State and Local Government Budgeting (3). Cross-listed as PADM 867. Analysis of the development and utilization of the budgetary process in government administration emphasizing the budget in relation to its role in policy formulation and management. Prerequisite: PADM 865 or instructor's consent.

POLS 868. Seminar in Public Finance Systems (3). Cross-listed as PADM 868. An analytical study of selected topics in the politics and administration of revenue, expenditure, and borrowing policies of governmental organizations. Prerequisite: departmental consent.

POLS 873. Seminar Paper Option (3). Requires students to extensively revise a seminar paper they wrote within their area of emphasis. Paper is written under the direction of a faculty member and orally defended before a committee of three or more faculty, including a chairperson. Prerequisite: departmental approval.

POLS 874. Internship. (3-6). SU grade only. An intensive applied learning experience supervised by a University department or committee. To receive credit, a student must secure approval of a written report from his/her own department. Prerequisite: departmental consent.

POLS 875. Research Design (3). SU grade only. Requires the development of a research design for the thesis. The design must be submitted to a departmental committee for evaluation and approval. Prerequisite: departmental consent.

POLS 876. Thesis (1-3).

Psychology (PSY)

The course of study is designed to provide a breadth of knowledge in the field of psychology. Accordingly, the major requires students to choose courses from foundation areas (Group 1); traditional human oriented areas (Group 2); and applied areas (Group 3).

The program is designed to 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 30 hours in psychology, at least nine of which are earned at Wichita State. PSY 111 is prerequisite for all higher number psychology courses. All BA majors are required to take PSY 111, 401, 411, and 601. In addition, 6 hours must be taken from each of the groups listed below.

Group 1: PSY 302, 322, 332, 342, 402, 502, 512, 522, 532, or 622

Group 2: PSY 304, 324, 334, 404, 414, 514, 524, 534, or 544

Group 3: PSY 306, 316, 326, 336, 386, 406, 416, 426, 516, 526, 536, 546, 556, 566, or 720

Minor. The minor consists of a minimum of 15 hours selected in consultation with the student’s major advisor.
Certification by the State of Kansas as a substance abuse counselor is awarded through the Kansas Association of Addiction Professionals (KAAP), to students who have obtained a minimum of an Associate degree with 27 hours of specific substance abuse course work. contact the Psychology Department for current course offerings in this area.

Lower-Division Courses

PSY 108. Stress and Stress Management (3). 2R; 2L. Introduces the theories of stress and surveys major stress management techniques. Discussion emphasizes the conceptualization of stress and its social impact; complemented by stress reduction techniques. Does not satisfy the University's social science 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 118. Assessment Planning, Case and Records Management (2). An introduction to differential criteria for evaluating alcohol and other types of substance abuse and dependence, in relation to other mental health issues. Includes types of documentation, record keeping, and case management required of substance abuse counselors. Does not satisfy WSU’s social science requirement, nor does it count toward a psychology major.

PSY 128. Pharmacology for Substance Abuse Counselors (1). Covers states of intoxication, withdrawal, and side effects associated with alcohol and substance abuse. Includes cross addictions and effects of combining psychoactive drugs with prescribed and over-the-counter medication. Does not satisfy WSU’s social science requirement, nor does it count toward a psychology major.

PSY 138. Ethics and Confidentiality in Substance Abuse Counseling (1). Covers substance abuse client rights, state and federal regulations concerning client confidentiality, and professional code of ethics and credentialing requirements of substance abuse counselors. Does not satisfy WSU’s social science requirement, nor does it count toward a psychology major.

PSY 148. Field Experience in Substance Abuse Counseling (2). This course is solely for students completing the Substance Counselor Training Curriculum. Students will locate a placement in an agency that provides substance abuse counseling services. Their field work will provide students with experience in the tasks required of a substance abuse counselor. Class sessions will focus on integrating treatment agency experiences with classroom instruction. Does not satisfy WSU’s social science requirement, nor does it count toward a psychology major. Offered Cr/NC only.

PSY 150. Workshop in Psychology (1-4).

PSY 158. Medical High Risk Issues in Substance Abuse (1). Covers sexually transmitted diseases, fetal alcohol syndrome, and other physiological and neurological consequences associated with alcohol and substance abuse. Does not satisfy WSU’s social science requirement, nor does it count toward for a psychology major.

PSY 168. Multicultural Issues in Substance Abuse (2). Covers how cultural, ethnic, racial, and other special population differences affect the use and abuse of addictive substances. Also includes discussion of culturally appropriate counseling techniques. Does not satisfy WSU’s social science requirement, nor does it count toward a psychology major.

Upper-Division Courses

>PSY 302. Psychology of Learning (3). General education further study course. This 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: PSY111.

>PSY 304. Social Psychology (3). General education further study course. The study of perception of self, others and groups. Includes attitude formation and change; group processes like conformity, compliance and conflict; and interpersonal processes such as attraction and the formation of close relationships. Also includes the application of social psychological principles to the study of prosocial and aggressive behavior. Prerequisite: PSY111.

PSY 306. 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: PSY111.

>PSY 316. 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: PSY111.

>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: PSY111.

>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. Present and discuss case studies. Prerequisite: PSY111.

PSY 326. Introduction to Group Counseling (3). Surveys contemporary theories and techniques of group counseling. Includes a comparison of varying group leader roles and styles and discussion of different types of counseling groups and their functions. Emphasizes therapeutic factors and processes in group counseling. Prerequisite: PSY111.

>PSY 332. 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: PSY111.

PSY 334. Developmental Psychology (3). General education further study course. Descriptive survey of human development from conception to death emphasizing the interplay of environmental, genetic, and cultural determinants of development. Selected topics emphasized and elaborated by demonstrations and class projects. Prerequisite: PSY111.

PSY 336. Alcohol Use and Abuse (3). General education further study course. Study of the individual, social and cultural aspects of alcohol use. Investigates both non-problem and problem drinking, treatment of alcoholism, prevention of alcoholism and alcohol-related problems, and the needs of special populations. Also includes investigation of the use and abuse of drugs other than alcohol. Prerequisite: PSY111.

PSY 342. Psychology of Motivation (3). General education further study course. Examines the psychological and biological forces leading to goal-directed actions to understand the complexity of influences upon behavior. Motivational topics include reward and punishment, stress, aggression, achievement, and the role of the brain structures in influencing organized behavior. Prerequisite: PSY111.

PSY 386. Human Factors Psychology (3). The study of how people respond to the demands of complex machines and the varied environments of workplace, home, and other settings. Course introduces the tools and methods of machine, task, and environment design to achieve the matching of human capabilities and the demands of machines and environments so as to enhance human performance and wellbeing. Prerequisite: PSY111.

PSY 401. 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: PSY111 Q and MATH111 or 112.

>PSY 402. Psychology of Consciousness (3). General education further study course. Examines consciousness from two perspectives: as a psychological state ranging from comas to
“peak experiences” and as a framework for knowledge. Covers research on split-brains and dissociated personalities from the second perspective. Prerequisite: PSY111.

>PSY 404. Psychology of Aging (3). General education further study course. Cross-listed as GERN 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: PSY111.

>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 411. 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 401.

>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 426. Psychology of Work (3). Selects from standard topics of industrial psychology; examines in greater depth the seriousness of job satisfaction problems, effects of technological change, membership in unions, control of productive workers, facts and myths about the working woman, and similar topics. Prerequisite: PSY 111.

PSY 428. Field Work in Psychology (3). Special projects and practicums under supervision in public and/or private agency settings. Psychological study, observation, service, and/or research may be undertaken with prior approval by the department. Repeatable for a maximum of 6 credit hours, but only 3 hours may be earned per semester. Offered Cr/NCr only. Prerequisite: PSY 111 and departmental consent.

PSY 481. Cooperative Education (1-3). Provides practical experience under academic supervision, that complements the student’s academic program. Consultation with and approval by an appropriate faculty sponsor are necessary. Offered Cr/NCr only.

Courses for Graduate/Undergraduate Credit

PSY 502. Comparative Psychology (3). Develops a unified theoretical perspective about the origins of behavior of all animals. Focuses on the evolution and development of behavior. Field trips supplement lectures. Prerequisite: one course from Group 1.

PSY 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 life style and behavior in relation to health and illness. Prerequisite: PSY 111.

>PSY 516. Drugs and Human Behavior (3). General education further study course. Assay 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 522. Biological Psychology (3). General education further study course. A review of the biological foundations of behavior. Includes the evolutionary basis of behavior, behavior genetics, a critical analysis of brain-behavior relationships, the role of hormones in behavior, and neurochemical correlates of behavior. Prerequisite: PSY 111.

PSY 524. Advanced Psychology of Personality (3). More intensive treatment of the topics of psychology of personality emphasizing contemporary theories, research, and application of the psychological study of personality. Prerequisite: PSY 324.

PSY 526. Psychological Testing and Measurement (3). A critical analysis of the psychological foundations of tests and the interpretation of test findings. Surveys several tests representing the areas of intelligence, personality, normal and abnormal psychology, interests, special abilities, and aptitudes to illustrate general principles of testing. Prerequisite: PSY 401.

>PSY 532. Psycholinguistics (3). General education further study course. Cross-listed as LING 565. Survey of psychological, linguistic, and informational analyses of language. Includes the performance-competence distinction, child development of speech, animal communication systems, and the relation of language to thought. Prerequisite: PSY 111.

>PSY 534. Psychology of Women (3). General education issues and perspectives course. Cross-listed as WOM S 534. Psychological assumptions, research, and theories of the roles, behavior, and potential of women in contemporary society. Prerequisite: PSY 111.

PSY 536. Behavior Modification (3). A study of the basic assumptions, principles, and issues of behavioral approach to helping persons with psychological problems. Includes demonstration and individualized practice in general helping skills as well as individual projects in applying these skills. Prerequisites: PSY 111 and instructor’s consent.


PSY 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 SC WK 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). 2R; 2L. Introduces computer applications to the behavioral sciences including 1) techniques of analyzing experimental data, 2) statistical applications, 3) interactive computing, 4) “canned” statistical programs, 5) word processing, and 6) other current computer applications. Prerequisites: 9 hours in the social sciences.

PSY 601. Systems and Theories in Psychology (3). Includes behaviorism, Gestalt psychology, and structuralism. Attempts to develop the logical relations of these theories to each other as well as to common historical themes and current issues. Prerequisite: 15 hours of psychology including PSY 411 and instructor’s consent.

PSY 608. Special Investigation (1-3). Upon consultation with instructor, advanced students with adequate prepara-
tion 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 advisor prior to registration. Prerequisites: 9 hours in psychology and instructor’s consent.

PSY 720. Aerospace Psychology (3). Exploration of the many roles of scientific psychology in aviation and aeronautics. 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 750. Psychology Workshop (1-3). Specialized instruction, using various formats in selected topics and areas of psychology. Graded S/U.

Courses for Graduate Students Only

PSY 810. Advanced Research Methods I (4). 3R; 3L. Part one of a two-course sequence aimed at advanced treatment of statistical and research design issues. Statistical methods included are analysis of variance, analysis of covariance, multiple comparisons, and multiple regression. Design issues include research planning, validity, quasi vs. experimental designs, prediction vs. explanation, and modeling. The associated lab provides basic computer skills for access to the mainframe and some basic training for EXCEL, and SPSS for Windows. Prerequisite: instructor’s consent.

PSY 811. Advanced Research Methods II (4). 3R; 3L. Continuation of PSY 810. Statistical techniques emphasized are a combination of multiple regression, structural analyses including AMOS, factor analysis, canonical correlation, and discriminant analysis. Includes advanced design issues. The associated lab provides additional computer skills for access to EXCEL, and SPSS for Windows. Prerequisites: PSY 810 and instructor’s consent.

PSY 812. Biological and Philosophical Foundations of Psychology (3). Develops the idea that psychology is a biosocial science. Accordingly, course examines the philosophical foundations of science itself before exploring the biological foundations and contextual nature of psychological science. Readings cover biological factors as they pertain to psychology: evolution, genetics, maturation, functional neuroanatomy, physiology. Includes critical reviews of genetic determinism, neural localization, and hemispheric specialization. Prerequisite: instructor’s consent.

PSY 813. Cognitive/Learning Foundations of Behavior (3). Focuses on how human beings learn, maintain, and modify behavior, and how cognitive knowledge is acquired, maintained, represented, and used. The course serves as an integrated resource of the main issues and the theoretical questions investigated in the psychology of learning and cognition. Abasic understanding of classical and instrumental conditioning, and the cognitive processes of memory, language, speech, thought, decision making, and problem solving are provided. Prerequisite: instructor’s consent.

PSY 814. Assessment of Personality and Individual Differences (3). Reviews psychometric principles underlying assessment of individual differences in cognition and personality. Major approaches to assessment of normal personality variables are examined. Students self-administer several personality instruments and assess a client under supervision. Prerequisite: instructor’s consent.

PSY 815. Social and Developmental Foundations of Behavior (3). Examines basic assumptions, theories and methods in social and developmental psychology. Describes and analyzes research concerning the functional significance of social relationships for development and the embeddedness of behavior in social, ecological, and cultural contexts, focusing on a number of substantive issues such as person perception and social cognition, affiliation and attachment, socialization and interpersonal interaction, social support and social roles and context over the life span. Considers the applications of theories of attribution, attitude change, group functioning and attachment to current social problems. Prerequisite: instructor’s consent.

PSY 816. Ethics and Psychology (3). Cross-listed as PHIL 816. An in-depth analysis of moral issues that arise in the profession of psychology. Provides a detailed familiarization with current moral controversies and develops ethical reasoning skills that will enable one to address new issues as they arise. Representative topics include: informed and voluntary consent, rights of human research subjects, privacy and confidentiality, assessment, conflicting obligations, ownership of research results, multiple relationships in teaching, research and practice, conflicts between therapeutic and forensic roles, objectivity in research, the nature and boundaries of teaching psychology, etc.

PSY 820. Seminar in Human Factors (3). Focuses on a sample of contemporary human factors problems through review of current literature and theory. Content changes as new problems attain prominence internationally, but a typical sample might be human factors in the aging population; human factors in airport security and baggage marking; and human factors in third-world industrialization. Prerequisites: completion of 9 hours of Foundations of Psychology doctoral courses; for doctoral students from other disciplines, instructor’s consent after an interview.

PSY 830. Seminar in Community Clinical Psychology (3). Introduces basic historical, conceptual, research, methodological, and ethical issues in community-clinical psychology. Examines the responsibilities and roles of psychologists in the promotion of human functioning. Reviews models and determinants of human behavior from individual, developmental, and ecological/contextual perspectives. Details the reciprocal relationship between research and practical applications of psychological knowledge and the application of that knowledge to human psychosocial problems. Prerequisite: instructor’s consent.

PSY 840. Seminar in Environmental Psychology (3). Explores historical, theoretical, and empirical bases of environmental psychology. Presents contemporary models of environmental psychology including the ecological, social, community, and human factors perspectives consistent with a historical review of the field. Could include behavior-environment congruence, person-environment fit, social impact assessment, social policy, and the prevention of psychosocial problems through environmental intervention. Prerequisite: PSY 815.

PSY 841. Seminar in Motivation and Emotion (3). Intensive study of theory and research in motivational and emotional processes. Prerequisite: instructor’s consent.

PSY 842. Seminar in Psychology of Learning (3). Intensive study of theory and research in learning processes. The study of principles of individual behavior and some of the variables of which it is a function as illustrated by respondent and operant conditioning along with some areas of application are included. Prerequisites: PSY 302 and instructor’s consent.

PSY 843. Seminar in Psychotherapy (3). Provides an in-depth description and critical analysis of various theories and methods of psychotherapy, an examination of the efficacy of these therapeutic approaches, and a survey of common issues in psychotherapy, such as process and outcome, and client and therapist variables in the therapeutic process. Prerequisites: PSY 111 and instructor’s consent.

PSY 910. Doctoral Dissertation (1-3). Graded S/U only. Repeatable for credit. Prerequisite: admission to candidacy and instructor’s consent.

PSY 911. Graduate Research (1-3). Individual research. Graded S/U. Prerequisites: advisor’s consent and graduate standing.

PSY 920. Internship in Human Factors Psychology (1-3). Repeatable up to 6 hours. Planned placement experience in an off-campus setting, giving the doctoral human factors psychology student an opportunity to apply the principles of human factors psychology. Prerequisite: advisor’s consent.

PSY 921. Psychological Principles of Human Factors (3). Focuses on the interaction of people with machines and technology in a variety of environments. Provides depth to the topics surveyed in PSY 386 and serves as a means of integrating cognitive, biological, and perceptual psychology in applied settings. Prerequisites: completion of undergraduate course in cognitive psychology or PSY 813, and instructor’s consent after interview for doctoral students from other disciplines.

PSY 922. Seminar in Software Psychology (3). Intensive study of principles and methods of engineering psychology (human factors) applies to the design and evaluation of computer software. Includes research methods, programming as human performance, programming style, software quality evaluation, organizing the programming team, interactive interface issues, and the design of interactive computer systems. Prerequisite: instructor’s consent.

PSY 930. Advanced Psychopathology (3). An overview of major categories of psychopathology consistent with the most
PSY 931. Applied Research Methods in Community Settings (3). An examination of research methods which are used in community settings to develop and evaluate programs. Regarding program development, there is discussion of different data collection strategies used to assess community needs. Explores a variety of topics related to program evaluation including research design issues, developing criteria of merit, and the politicization of program evaluation. Prerequisite: instructor’s consent.

PSY 932. Internship in Clinical Psychology (1-3). Graded S/U only. A planned one year supervised clinical internship at an off campus site approved by APPIC for training in clinical psychology. Gives the clinical student an opportunity to further develop and employ clinical skills in an applied supervised training setting. Prerequisite: advisor’s consent.

PSY 933. Practicum in Clinical Psychology (1-3). Provides supervised practice working in community-based organizations on such tasks as needs assessment, program development, and program evaluation. Organizational settings may be in the areas of mental health, health, and education. Services may be prevention-oriented. Repeatable for credit. Graded S/U only. Prerequisite: instructor’s consent.

PSY 934. Practicum in Community Psychology (1-3). Provides supervised practice working in community-based organizations on such tasks as needs assessment, program development, and program evaluation. Organizational settings may be in the areas of mental health, health, and education. Services may be prevention-oriented. Repeatable for credit. Graded S/U only. Prerequisite: instructor’s consent.

PSY 935. Seminar in Cognitive-Behavioral Assessment (4). Surveys issues of reliability and validity; provides description, critical analysis, and practice in clinical use of such psychological assessment methods as interviewing, observation, self-report, and standardized intelligence and personality tests. Focuses upon comprehensive clinical assessment, including integration and reporting of assessment data for treatment planning. Prerequisite: instructor’s consent.

PSY 936. Seminar in Cognitive-Behavior Therapy (4). 3R; 3L. Reviews the theoretical and empirical support for specific behavior therapeutic approaches. Approaches may include systematic desensitization, flooding, contingency management techniques and cognitive therapies. Also discusses the interface between behavioral assessment and clinical practice. Prerequisite: instructor’s consent.

PSY 937. Seminar in Community and Organizational Intervention (4). 3R; 3L. Focuses on the development and/or change of community-based programs and organizations and the implementation and funding of community-based programs. Explores theoretical and conceptual basis of these interventions, drawing on material from community psychology, public health, and applied social psychology. Helps prepare students to become involved as professionals in community-based health or mental health interventions in a variety of roles: as program developers, proposal writers, program implementers, and program managers. Prerequisite: instructor’s consent.

PSY 938. Seminar in Prevention (3). Reviews the historical, theoretical, and empirical bases of prevention psychology. Presents contemporary models of prevention psychology including the ecological, social, and community mental health perspectives. Could include primary prevention, empowerment, community-based prevention, self-help, social policy, and the prevention of psychosocial problems through environmental intervention. Prerequisite: instructor’s consent.

PSY 940. Development of Abnormal Behavior (3). Considers the descriptive characteristics of abnormal behavior; a developmental perspective. Considers the ecological, social-environmental, personal, and genetic-biological contexts and causes of such behavior. Discusses implications for preventative and clinical interventions. Prerequisite: instructor’s consent.

PSY 941. Measurement of Human Performance (3). Develops the logic of fundamental measurement and applies it to human performance from detection to decision. Covers Signal Detection Theory (SDT) and compares it with threshold theory. Discusses procedures for assessing both detection and discrimination under both SDT and threshold theory. Develops information measurement and utility theory and applies it to the transmission and coding of information and to decision making respectively. Examines measures of work reliability and well-being. Prerequisite: instructor’s consent.

PSY 942. Seminar in Behavioral Development (3). A critical analysis of the concept of development and of theories of behavioral development. Prerequisite: instructor’s consent.

PSY 943. Seminar in Consultation (3). Examines theories and techniques of psychological consultation as applied to individuals, organizations, and systems. Prerequisite: instructor’s consent.

PSY 945. Seminar in Current Developments (3). Intensive study of current issues, techniques, research, and application. Repeatable for different topics for a maximum of 6 hours. Prerequisite: instructor’s consent.

PSY 946. Seminar in Motor and Sensory Processes (3). Focuses on the perceptual control of action. Reviews how the sensory systems operate with emphasis on vision. Covers anatomy and physiology of the motor system. Selected examples on how these concepts relate to human factors psychology.

PSY 947. Seminar in Perception (3). Intensive study in theory and research in perceptual processes. Prerequisites: PSY 332, or equivalent, and instructor’s consent.

Public Administration
See Urban and Public Affairs, Hugo Wall School of.
impact of Native American, Asian, and African beliefs and practices on the religious landscape.

REL 380. Special Studies (3). A concentrated intermediate study of a particular component of religious studies. Repeatable for credit.

REL 480. Special Studies (3). A concentrated study of a religious issue or text announced by the instructor when course is scheduled. Repeatable for credit. Prerequisite: instructor’s consent.

REL 490. Independent Work (1-3). Designed for the student capable of doing advanced independent work in a specialized area of the study of religion that is not formally offered by the department. Repeatable for credit. Prerequisite: departmental consent.

Courses for Graduate/Undergraduate Credit

REL 790. Independent Study (1-3). For the student who is capable of doing graduate work in a specialized area of the study of religion not formally offered by the department. Repeatable for credit. Prerequisite: departmental consent.

Russian
See Modern and Classical Languages and Literatures.

Social Work (SC WK)
The undergraduate social work program, housed in WSU’s School of Social Work, offers courses leading to a Bachelor of Social Work (BSW) degree. The principal objective of the BSW program is to prepare students for beginning-level professional social work practice. The undergraduate social work program is accredited by the Council on Social Work Education (CSWE). Students graduating from an accredited BSW program are eligible for professional social work licensure in Kansas.

Progression in the social work program has two key stages: initial admission into the program and application and acceptance into the practicum.

Requirements include a 2.000 overall GPA, completion of pre-major and prerequisite course, and satisfactory completion of a non-credit orientation session. Students who receive a grade less than “C” in a required course must repeat that course and earn a “C” or above. Provisional admissions may be granted before final grades are received but enrollment in required upper-division social work courses is dependent upon meeting these admission standards.

The second stage is application for admission into supervised field practicum. Information and application materials for admission into the major and to the field practicum are available from the social work office.

There will be no credit toward the Social Work Degree for prior life or work experiences.

Lower-Division Courses
SC WK 201. Introduction to Social Work and Social Welfare (3). Introduction to the profession of social work. Includes history of social work and social welfare; introduction to the helping process, examination of social problems, policies, and services, and current trends in social services and programs. Community service activities are required. Prerequisites: SOC 113 and PSY 111.

Upper-Division Courses
SC WK 300. Perspectives on Social Welfare (3). Surveys a broad spectrum of social welfare programs, policies, and controversies with an emphasis on public and private systems which address individual, family, and group needs. Explores 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.

SC WK 340. Human Sexuality (3). Cross-listed as WOM S 340. Provides a forum for information and discussion on topics relating to physical, psycho-social, and cultural components of human sexuality. Includes female and male sexual attributes and roles, sexual problems, alternate life styles, birth control, values, and sexuality and cultural components of sexuality.

SC WK 481. Cooperative Education in Social Work (1-4). A practical experience with public and private sector agencies which address a broad range of individual needs and community problems. Topical journals focus upon individual knowledge and skill development through field experiences while engaged in the major social work curriculum. Repeatable as elective credit not to exceed 12 hours. Graded C/NC.

Courses for Graduate/Undergraduate Credit
SC WK 500. Social Welfare Development and Policy Analysis (3). Provides development of analytical frameworks for understanding the processes of policy formation, factors shaping policy decisions, the content of program designs, and the performances of social welfare policy and service programs. Examines voluntary and proprietary systems in the development of knowledge and skills for the engagement of complex community resources, the promotion of service innovations, and the shaping of decisions in the areas of public policy. Emphasizes diverse populations in metropolitan environments. Prerequisites: POL S 121 or HIST 132, SC WK 300.

SC WK 502. Social Work Interviewing: Strategies and Techniques (4). Introduces the study and practice of interpersonal professional interaction skills within the framework of a social work helping process. Focuses on developing skills in professional observation, communication, interviewing, recording, and reporting. Course is didactic as well as interactive and includes an integrated laboratory component focusing experiential learning. Required for social work majors.

SC WK 512. Social Work Research I (3). This course provides an introduction to methods of social work research. Examines both qualitative and quantitative methodologies. Students apply these methods to social work practice. (2) Both qualitative and quantitative methodologies are examined and (3) the foundation for advanced social work research.

SC WK 541. Women, Children, and Poverty (3). General education issues and perspectives course. Cross-listed as WOM S 541. Addresses the problem of poverty among women in the U.S. today and examines existing and proposed public policies designed to alleviate the problem. Explores theoretical models of poverty policy analysis and the role of values in their formulation and implementation. Discusses issues of age, race, and family; special attention is given to poverty among Kansas families. Prerequisite: 6 hours of social science.

SC WK 551. Independent Studies (1-3). Individual projects for social work students who are capable of doing independent work in areas of special interest. Repeatable for credit not to exceed 6 hours. Prerequisite: instructor’s consent.

SC WK 560. Person in Society I (3). Provides a beginning theoretical framework within which the integration of prior knowledge can be made regarding physical, mental, and social development of the human being, perspectives on American culture and subcultural variations and their effect on human adaptability in the social environment, and the relationship of those entities to beginning professional social work practice. Prerequisite: school approved human diversity course (3 cr).

SC WK 561. Person in Society II (3). Explores theories and perspectives which explain human behavior in groups, organizations, and communities. Includes application of systems theory to macro and micro systems, social interaction theories, group and family dynamics, majority/minority relations, organizational dynamics, community structures, and the effects of discriminatory structures and practices on minority groups and communities in our society. Prerequisite: SC WK 560.

SC WK 566. Perspectives on Self-Help Groups (3). Cross-listed as NURS 566 and PSY 566. Provides an interactive format that constitutes a community resource for health and human service professionals and promotes an interdisciplinary understanding of the nature and diversity of self-help groups for persons with virtually any health problem or personal issue. Reviews contemporary theory and research, explaining the attractiveness and effectiveness of self-help groups. Panels of support group members share their experience with self-help groups on such topics as addiction, cancer and other illnesses, eating disorders, bereavement, maternal illness, and parenting.

SC WK 602. Practicum I (4). Placement in community social welfare agencies for supervised periods of observation and direct service assignments emphasizing performance of basic practice skills and understanding of the social welfare agency and its role in the community service network. To be taken concurrently with SC WK 601 except by program consent. Prerequisites: SC WK 502 and program consent.

SC WK 603. Generalist Practice II (3). Focuses on developing generalist social work practice knowledge and skills at the group, organizational, and community levels. Presents macro practice roles and skills and links to group and individual practice skills for beginning-level social work interventions with systems of all sizes. Must be taken concurrently with SC WK 601. Prerequisite: SC WK 601.

SC WK 604. Advanced Social Work Research (3). A critical look at practice, services, and professional issues, using social work research. Analyzes current social work practice as well as future directions. Prerequisite: SC WK 512 and an approved research methods course.

SC WK 605. Practicum II (5). Placement in community social welfare agencies for supervised direct service assignments emphasizing formulation of appropriate goals. Includes the selection of various social work roles and in-depth development of techniques and skills common to practice in the social welfare field. Prerequisite: SC WK 602.

SC WK 610. Topics in Social Work (1-3). Selected topics in practice, policy, research, and human behavior in the social environment within a selected field of social welfare. Covers specific topics identified by the program in consultation with majors, groups of community practitioners, and area service institutions. Repeatable. Prerequisite: instructor or program consent.

SC WK 700. Foundations of Generalist Practice I (3). Provides foundation content in the knowledge and skills for empowerment-based generalist social work practice with individuals, families, groups, organizations, and communities. Includes professional role development, communication and interviewing theory, skill development in social work assessment, intervention, and evaluation methods. Co-requisite: SC WK 720.

SC WK 702. Foundations of Generalist Practice II (3). Provides continued social work practice foundation content emphasizing developing generalist knowledge and skill at the group, organizational, community, and societal levels. Emphasizes material on group process and organizational and community leadership in the development of a problem-solving model for work with systems of all sizes. Prerequisite: SC WK 700 or instructor’s consent.

SC WK 710. Micro Human Behavior and the Social Environment (3). Provides theories and knowledge of human bio-psychosocial 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.

SC WK 712. Macro Human Behavior and the Social Environment (3). Provides theories and content on organizational and community structure, dynamics and change, social movements, large groups, and structural oppression, and provides a theory base for the contextualization of social work practice within diverse environments and macro systems. Emphasizes understanding the needs of minority communities and on understanding change and empowerment strategies which further social justice in communities and organizations. Prerequisite: SC WK 710 or instructor’s consent.

SC WK 716. Social Welfare Development (3). Critical examination of the history of American social welfare institutions, policies, and the social work profession as a context for understanding contemporary social policy issues. Provides the knowledge and skills needed to effectively enact policy in practice with clients, and develop social policy both within their agencies and in the larger political arena. Students develop an appreciation for the profession’s ethical commitment to promote social justice and the general welfare of society and to improve social institutions to meet basic human needs. Prerequisite: program approval.

SC WK 717. Social Welfare Policy and Analysis (3). Surveys social welfare institutions, emphasizing the strengths and weaknesses of programs within the context of the social problems they address. The comparison of these structures and provisions enables the development and use of frameworks for analyzing social policies and evaluating programs in light of the mission of the social work profession; the principles of social and economic justice; and the historical, 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: SC WK 716.

SC WK 720. Field Practicum I (3). Placement in community social welfare agencies for supervised periods of observation and direct service assignments emphasizing development of basic practice knowledge and skills. Includes developing understanding of the social welfare agency and its role in the community service network. Co-requisite: SC WK 710.

SC WK 721. Field Practicum II (3). Requires placement in community social welfare agencies for supervised periods of observation and direct service assignments emphasizing development of basic practice knowledge and skills. Promotes an understanding of the social welfare agency and its role in the community service network. Co-requisite: SC WK 702.

SC WK 730. Graduate Topics in Social Work (1-3). Specialized instruction using a variable format in a social welfare relevant subject. Course may be offered together with SC WK 750. Prerequisite: instructor’s consent.

SC WK 731. Social Work and the Law (3). Students will develop and integrated, advanced generalist framework for interdisciplinary, advanced generalist practice within a legal setting. Students will develop a basic knowledge of the law, the roles social workers play within the legal system and the issue of crime and social justice with respect to race and ethnicity. Students will develop an understanding of 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 will develop skill in communicating with attorneys to enhance their effectiveness in resolving clients’ problems.

SC WK 750. Social Work Workshops (1-5). Selected topics in practice, policy, research, and human behavior in the social environment within a selected field of social welfare. Covers specific topics identified by the program in consultation with majors, groups of community practitioners, and area service institutions. Repeatable for up to a total of 6 hours of credit.

SC WK 751. Fundamentals of Social Work Research (3). Provides an introduction to the components of quantitative research design and how research is designed to conduct studies which seek to improve social work practice. Introduces the basic concepts of the social work research process as well as the methods that are employed. Students develop a framework for critically evaluating methods employed in current social work research and the potential benefits of applying these research findings to social work practice. Prerequisite: program approval.

SC WK 760. Advanced Standing Seminar (3). Builds upon the advanced standing student’s knowledge, experience, and skills by integrating social work theory, values, ethics, methodology, and literature. Based in the generalist perspective. Prepares students for the advanced generalist practice course work in the MSW program.

SCWK 799. Directed Study (1-3). Individual study with a focus developed in collaboration with a departmental faculty member. Allows students to pursue an area of special interest. Repeatable for up to 6 credit hours. Prerequisite: departmental consent.

Courses for Graduate Students Only

SC WK 810. Cultural Competency for Advanced Generalist Practice (3). Examines the impact of culture, race, and ethnicity on client/worker interactions. Presents practice theories and interventions for culturally competent advanced generalist practice with different populations. Emphasizes experiential learning of cultural competence.
skills to provide services cross-culturally. Prerequisite: program consent.

SC WK 816. Advanced Generalist Practice with Multiple Systems (3). Provides a critical examination of theories of practice relevant for advanced generalist practice across systems. Theories include biological, psychological, social, and spiritual dimensions of human behavior. Emphasizes theories applying to social work intervention with individuals, family systems, and small groups. Prerequisite: program consent.

SC WK 817. Community Empowerment and Social Administration (3). Provides students with advanced generalist knowledge and skills for organizing and empowering communities and managing community-based organizations. Examines the history, strategies, and approaches relevant to community organizing. Focuses upon intervention and administrative skills to meet organizational and community needs. Emphasizes understanding the particular needs of minority communities. Prerequisite: program consent.

SC WK 822. Field Practicum III (4). Placement in community social welfare agencies for supervised periods applying direct and indirect practice. Provides students the opportunity to integrate and apply advanced generalist practice theory within their field experience. Students are required to demonstrate increased knowledge and skills in practice, research, and evaluation across multi-level systems. Requires 350 hours of agency service. Prerequisite: program consent.

SC WK 823. Field Practicum IV (4). Continuation of SC WK 822. Requires 350 hours of agency service. Prerequisite: program consent.

SC WK 832. 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.

SC WK 833. Family Therapy (3). Examines theoretical approaches to social work assessment and intervention with families. Reviews and evaluates various approaches to family therapy, and focuses on assessment and intervention with different types of families (e.g., differing levels of functioning, ethnicity, vulnerability, and oppression). Examines theoretical constructs, strategies for change, and use in actual social work intervention for such models of family therapy as structural, Bowenian, strategic, experiential, cognitive/behavioral, psychodynamic, and solution-focused.

SC WK 851. Directed Project (1-3). A project conducted under the supervision of an academic advisor for the non-thesis option. Requires the completion of a written report and an oral presentation of the research to the faculty. Prerequisite: consent of academic advisor.

SC WK 860. Integrative Seminar for Advanced Generalist Practice (3). Integrates social work theories, knowledge, and skills to develop each student's framework for advanced generalist practice. Emphasizes applying social work theories in practice with populations at risk of violence. Develops skills in applying a wide array of social work roles within a multi-level practice environment. Prerequisite: SC WK 816.

SC WK 870. Clinical Assessment for Advanced Generalist Practice (3). Uses a biopsychosocial perspective to understand problematic patterns of functioning identified as diagnoses in the DSM-IV. Students critically examine the DSM-IV as a basis for social work assessment and learn its use within an advanced generalist practice perspective. Prerequisite: program consent.

Sociology (SOC)

Sociology—the scientific study of society and human interaction—is an opportunity to learn a great deal about yourself and the society around you. A major in sociology provides students with an understanding of human behavior in personal relations such as the family and friendships and how human behavior is affected by larger societal influences such as the economy, bureaucracies, and social problems. This understanding is useful in such fields as human services, business, and law.

Major. The study of society mandates specific skills for interpreting information and observations. Therefore, students majoring in sociology are required to enroll in the following courses:

### Course Hrs.

<table>
<thead>
<tr>
<th>Course</th>
<th>Hrs.</th>
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<tbody>
<tr>
<td>SOC 111, Introduction to Sociology ..................</td>
<td>3</td>
</tr>
<tr>
<td>SOC 312, Introduction to Social Research ............</td>
<td>3</td>
</tr>
<tr>
<td>SOC 501, Sociological Statistics .....................</td>
<td>3</td>
</tr>
<tr>
<td>SOC 512, Measurement and Analysis ....................</td>
<td>3</td>
</tr>
<tr>
<td>SOC 545, Sociological Theory ........................</td>
<td>3</td>
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In addition to the five courses listed above, majors also must enroll in 15 hours of electives to complete the 30-hour major. With this flexibility, students can select specific areas of concentration such as deviant behavior, family, gender, gerontology, social organization, intimate relations, and urban sociology—or some combination of these specialties. Depending on your interests and goals, certain courses in related departments that meet your particular needs and are approved by your advisors may be counted toward a sociology major. No more than 6 hours of such courses may be included.

Minor. A minor in sociology consists of at least 15 hours, including SOC 111, Introduction to Sociology (3 hours) and at least 6 hours of courses, 500+.

Lower-Division Course

> SOC 111. Introduction to Sociology (3). General education introductory course. Introduces basic concepts, propositions, and theoretical approaches of sociology, including elementary methods of studying social phenomena. The basic course for students who intend to take additional courses in sociology.

Upper-Division Courses

SOC 301. Computers and Society (3). General education further study course. Examines the interactions between humans and microcomputers and studies the effect of microcomputers upon social interaction and stratification within society. Focuses upon the work setting and the family. Includes new social roles (programmer, hacker, the cyberphobic, the cyberphilic); the computer as a family member; the computer as a power vendor in the work setting; computer deviance; and the computer and the disadvantaged. Utilizes a cross-cultural and historical perspective where appropriate.

SOC 312. Introduction to Social Research (3). Generally offered fall semester only. A survey of the many research techniques found in sociology and related fields. Stresses conceptual understanding of all phases of the research process. Prerequisite: SOC 111.

SOC 315. Marriage and Families (3). General education further study course. Emphasizes dating and marriage processes as they exist in the United States today. Examines the different family forms that exist in the U.S. and around the world and considers historical change. Aids students in the acquisition of a sociological perspective of the marriage process through an examination of social class, ethnicity, sex roles, dating cohabitation, and human sexuality. Emphasizes marital interaction, parenthood, family violence, marital dissolution, and the future of marriage.

SOC 316. The American Male (3). General education issues and perspectives course. Cross-listed as WOM 536. Examines the male role in America from a variety of sociological perspectives and within particular settings, for example, work, family, and leisure. Other relevant topics: socialization, intimacy, and adult developmental stages and crises. Discusses changing male roles produced by strains and conflicts in contemporary America.


SOC 320. Contemporary Social Problems (3). General education further study course. Examines the theoretical frameworks and research methods used to examine contemporary social problems and applies these frameworks and methods to issues of concern within contemporary society. Includes deviance, social inequality, and discrimination. Prerequisite: SOC 111.

SOC 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 status, class, and caste in various societies, especially in American society. Also includes the relationship of social inequality to various social institutions. Prerequisite: SOC 111.

>SOC 336. Work in Modern Society (3). General education issues and perspectives course. Broad overview of work in the modern economy. Examines the historical development of industrial-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 338. Health and Lifestyle (3). General education further study course. Views health as a social characteristic which is defined and influenced by social processes. Studies the social resources for health which exist in social norms, relationships, and networks. Identifies variations in personal health practices according to characteristics such as social class and marital status. Considers changing social standards for health and the stigma given to poor health. Examines socially created risks to health and organized efforts to change unhealthy environments. Investigates the medicalization of society. Prerequisite: SOC 111 or departmental consent.

>SOC 350. Social Interaction (3). General education further study course. Studies the effect groups have on individuals. Primary focus on the symbolic interactionist perspective in sociology. The goal is for students to understand how social interaction influences their daily activities. Includes the meaning and importance of the symbol; the nature and development of self; social roles and their influence on individuals; and the social construction of society. Prerequisite: SOC 111.

>SOC 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. Prerequisite: departmental consent.

>SOC 481. Cooperative Education in Sociology (1-4). Provides the student with practical experience under academic supervision, that complements the student’s academic program. Consultation with and approval by an appropriate faculty sponsor are necessary. Cr/NCr only. Prerequisite: instructor’s consent.

Courses for Graduate/Undergraduate Credit

SOC 501. Sociological Statistics (3). Generally offered fall semester only. Application of descriptive and inferential statistics to sociological problems. Includes measures of central tendency, dispersion and association, simple linear regression, hypothesis testing, and analysis of variance. Prerequisites: SOC 111, SOC 312, MATH 111 or 331 or equivalent.

SOC 512. Measurement and Analysis (4). Generally offered spring semester only. An applied study of the conceptual tools and methodological skills needed to conduct quantitative sociological research. Prerequisites: SOC 111, 312, 501.

SOC 513. Sociology of Aging (3). General education further study course. Cross-listed as GERON 513. Examines the social dimensions of old age, including changing demographic structure and role changes and their impact on society. Prerequisite: SOC 111.

SOC 515. Sociology of the Family (3). General education further study course. Cross-listed as WOM S 515. Explores the development of family systems and structures throughout the world. Also discusses social problems associated with urbanization. Prerequisite: SOC 111.

SOC 516. Sociology of Gender Roles (3). Cross-listed as GERON 516. Examines the factors related to juvenile delinquency and the measures of treatment and prevention. Prerequisite: SOC 111.*

SOC 520. Family and Aging (3). Cross-listed as WOM S 520. Examines family behavior, including the selection of marriage partners, the husband-wife and parent-child relationships, and the relation of these patterns of behavior to other aspects of American society. Prerequisite: SOC 111.

SOC 534. Urban Sociology (3). General education further study course. Studies the process of urbanization and its influence on the development of cultural and social structures throughout the world. Also discusses social problems associated with urbanization. Prerequisite: SOC 111.

SOC 537. The Social Consequences of Disability (3). Cross-listed as GERON 537. An ecletic survey of the social aspects of disability showing the impact of social values, institutions, and policies upon adults with disabilities. Appropriate for both students of sociology and the service professions. Prerequisite: SOC 111.

SOC 538. Medical Sociology (3). Analyzes social and cultural factors related to physical and mental illness. Also includes the dynamics of communication and role relationships among patients and medical personnel and social research and theory relevant to the health professions. Prerequisite: SOC 111.

SOC 539. Juvenile Delinquency (3). General education further study course. The factors related to juvenile delinquency and the measures of treatment and prevention. Prerequisite: SOC 111.*

SOC 540. Criminology (3). The extent and nature of criminal behavior and societal reactions to it. Prerequisite: SOC 111.*

SOC 541. Contemporary Corrections (3). Historical and contemporary programs for the treatment of offenders viewed as societal reactions to criminal behavior. Prerequisite: SOC 539 or 540.*

SOC 545. Sociological Theory (3). Generally offered fall semester only. A comprehensive survey of sociological theory, spanning both classical and contemporary theorists relevant to the development of sociology. Prerequisite: 9 hours of sociology.

SOC 598. Internship (1-6). Supervises persons involved in internships or placements in the community where credit can be given. Prerequisite: departmental consent.

SOC 600. Selected Topics in Sociology (3). Study in a specialized area of sociology emphasizing student research projects. Includes deviant behavior, political sociology, and the family. Repeatable for a maximum of 6 hours credit. Prerequisites: SOC 111, instructor’s consent, and substantive area course.

SOC 651. Directed Research (3). Gives the student further research skills in an area of special interest. All students are under the direction of a member of the graduate faculty who guides them in developing research skills. Prerequisites: SOC 512 or equivalent and instructor’s consent.

SOC 670. Independent Reading (1-3). For the advanced student capable of doing independent work in an area of special interest. Prerequisites: 15 hours of sociology and instructor’s consent.

SOC 781. Cooperative Education in Sociology (1-4). Provides practical experience, under academic supervision,
that complements the student’s academic program. Consultation with and approval by an appropriate faculty advisor are necessary. Graded Cr/NCr only.

Courses for Graduate Students Only

SOC 801. Application of Advanced Statistical Techniques (3). Usually offered fall semester only. Seminar demonstrates the application of statistical packages via mainframe and personal computers to analyze data and interpret the output. Examines statistical tests from univariate to multivariate. Prerequisite: SOC 501 or departmental consent.

SOC 812. Advanced Research Methods (3). Through classical and contemporary readings, graduate students deepen their understanding of the methodological steps of the research process. Students address methodological issues while conducting a research project using design methodologies, sampling practices, and measurement strategies. Prerequisite: SOC 512 or departmental consent.

SOC 815. Seminar on the Family (3). Review of recent research on the family and the theoretical implications thereof. Prerequisite: SOC 515 or departmental consent.

SOC 820. Seminar in Social Movements (3). Analyzes the elements in social movements as factors in social and cultural change. Prerequisite: departmental consent.

SOC 825. Seminar in Organizational Analysis (3). Explores selected problems in organizational theory based on major theoretical and empirical approaches, both classical and contemporary. Prerequisite: departmental consent.

SOC 830. Seminar in Stratification and Power Structure (3). Examines different theoretical and methodological approaches to understanding stratification and class analysis. Prerequisite: departmental consent.

SOC 834. Seminar in Urban Sociology (3). Through classical and contemporary readings, course examines issues and concerns of countries in the process of urbanization. Prerequisite: SOC 534 or departmental consent.

SOC 845. Seminar in Sociological Theory (3). Usually offered spring semester only. Examines classical and contemporary sociological theories and focuses on including the application of such theories in students’ thesis and non-thesis projects. Prerequisite: SOC 545 or departmental consent.

SOC 847. Seminar in Recent Developments in Sociology (3). Major issues, new theories, new techniques of research, new areas of research, and new applications. Repeatable for credit but not to exceed 6 hours. Prerequisites: 15 hours of sociology and departmental consent.

SOC 851. Directed Project (1-3). A project conducted under the supervision of an academic advisor for the non-thesis option. Requires the completion of a written report and an oral presentation of the research to the faculty. Prerequisite: consent of academic advisor.

SOC 860. Proseminar—Teaching Sociology (1). Usually offered fall semester only. Examines the academic roles of sociologists. Prerequisite: departmental consent.

SOC 870. Independent Reading (2-3). Advanced systematic reading in a topical area under the tutelage of a member of the graduate faculty. Repeatable for credit not to exceed 6 hours. Prerequisite: departmental consent.

SOC 875-876. Thesis (3-6).

Spanish

See Modern and Classical Languages and Literatures.

Urban and Public Affairs, Hugo Wall School of

The Hugo Wall School of Urban and Public Affairs is committed to enhancing the quality of public life through high-quality graduate instruction, excellence in applied research, and responsive community service. This focus results not only in an excellent graduate education for students, but also allows a special connection with the community’s needs through research and service. By integrating teaching, research, and service, the school makes a distinctive contribution to Wichita State University’s long-standing commitment of service to Wichita, the surrounding communities, and the region.

The school serves as the academic home for the Master of Public Administration degree, the Center for Urban Studies, and the Kansas Public Finance Center. Through these units, faculty, staff, and students blend teaching, research, and service in the interdisciplinary field of urban and public affairs. The Hugo Wall School offers special opportunities for students interested in urban and public affairs. Students completing the Master of Public Administration degree gain experience through hands-on research and network with practitioners in the field of public administration.

Financial Assistance

The school has two forms of financial aid available to provide students with financial assistance, as well as an opportunity to be directly involved with research and service projects. Financial aid in the form of graduate assistantships and fellowships is awarded competitively on the recommendation of the faculty in the Hugo Wall School of Urban and Public Affairs.

Graduate assistants aid faculty in the Hugo Wall School in instruction, as well as work directly with faculty and professional staff on research and community service projects through the Center for Urban Studies and the Kansas Public Finance Center. Graduate assistants work 20 hours per week with faculty and staff in the school’s teaching, research, and public service activities.

The Hugo Wall School has four endowed fellowships available for financial assistance to qualifying graduate students enrolled in the Master of Public Administration degree. These fellowships—the Hugo Wall, George Pyle, Mike Hill, and George Van Ripper—are awarded on a competitive basis to students with exemplary records and specific career interests in the field of public administration.

Master of Public Administration

The Master of Public Administration (MPA) degree program, with instruction in public management, public finance, and public policy, prepares students for positions of leadership in public and nonprofit organizations. The degree is structured to respond to the unique student body of an urban university. The Master of Public Administration program is accredited by the National Association of Schools of Public Affairs and Administration (NASPAA).

The Master of Public Administration (MPA) degree draws upon the methods and perspectives of the social and behavioral sciences, economics, and the humanities. The link between these disciplines and the challenges of public management are emphasized through the use of practitioners in the classroom, policy-relevant research assignments, public affairs seminars, and internships. Teaching faculty, with significant professional experience in state and local government, are engaged in cutting-edge research relevant to public and nonprofit organizations in Kansas. This experience allows faculty to bring relevant perspectives on public management into the classroom.

Graduates of the MPA degree program now hold positions of responsibility in state and local government and in nonprofit agencies throughout the United States and in other countries. Graduates serve as city managers and department heads, program managers, finance directors, budget analysts, management analysts, and agency planners. Although the majority are employed in public service, some graduates of the program have taken positions in the private sector, while still others have pursued additional study in law, doctoral education, or other specializations.

Admission Requirements

Applicants for the degree program must meet the requirements for admission to the Graduate School, including a bachelor’s degree from a regionally accredited institution, a grade point average of at least 2.750 based upon the last 60 hours of course work (or nearest semester or term break to this) including any post-bachelor’s graduate work. In addition, students should be familiar with basic microcomputer applications such as word processing and spreadsheets.

International students must attain a minimum score of 600 on the Test of English as a Foreign Language (TOEFL).
Degree Requirements
The Master of Public Administration degree consists of 39 graduate hours, taken over at least three semesters of study.

Core Curriculum. All degree candidates are required to complete the eight core courses:
PADM 702, Research Methods in Public Administration
PADM 710, Public Sector Organizational Theory and Behavior
PADM 725, Public Management of Human Resources
PADM 745, The Environment of Public Administration
PADM 765, Public Sector Economics
PADM 802, Quantitative Methods for Public Sector Professionals
PADM 865, State and Local Government Finance
PADM 895, Public Decision Making

Areas of Emphasis. In addition to the core, students develop an area of emphasis approved by an advisor. Students may select areas that fit their career interests. Common areas include state and local government management, financial management, and policy analysis.

Internships
Internships are an important part of the MPA program. Pre-service students are encouraged to take an internship which must last at least nine months. Internship (PADM 890) carries 3 hours of credit and includes attendance at periodic seminars. Intern positions are remunerative and are awarded on a competitive basis. Although placement cannot be guaranteed, the public administration program has an excellent placement record.

Graduate Certificates
Graduate Certificate in Economic Development
This graduate certificate program offers advanced study in economic development by state and local governments. The program enhances students’ career opportunities and provides state and local practitioners in economic development an avenue to improve their skills. The four-course sequence includes: PADM 650: Planning Process; RE 619 Urban Land Development; PADM 688 or ECON 688 Urban Economics; and PADM 760 State and Local Economic Development.

Graduate Certificate in Public Finance
This graduate certificate program offers advanced study in public finance. The program enhances students’ career opportunities and provides public finance practitioners an avenue to improve their skills. The four course sequence includes PABM 765: Public Sector Economics; PADM 865: State and Local Government Finance; PADM 866: Public Financial Management; and PADM 867: State and Local Government budgeting.

Successful completion of a certificate requirement is noted on the student’s University transcript, and a Graduate Certificate is awarded by Wichita State University. Application for the certification programs requires completion of a bachelor’s degree, course prerequisites and admission to the Graduate School.

Upper-Division Courses

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.

PADM 402, Computer and Statistical Applications (3). Cross-listed as CJ 402, ETH S 402, and GERON 402. Introduces computer and statistical applications used in public agencies. Emphasizes availability and use of data sources, quantitative decision-making techniques, and interpretation of statistical analyses. Prerequisite: MATH 111 or equivalent.


Courses for Graduate/Undergraduate Credit

PADM 501, Integrity in Public Service (3). Cross-listed as CJ 501, GERON 502, and ETH S 501. Exposes the student to basic principles of personal and professional integrity and how those principles apply to their daily life as a member of the community and as an employee of a government or social service agency. Employs a case study method, using cases and examples from a wide range of government and non-profit agency experiences. Students become aware of the moral and ethical issues which may arise in their professional and personal lives; begin to develop critical thinking and analytical skills regarding ethical behavior; and become more personally and professionally responsible. Prerequisite: junior-or senior-level or instructor’s permission.

PADM 550, Workshop (3). Specialized instruction using variable format in relevant urban and public affairs subjects. Repeatable for credit up to 6 hours.

PADM 560, The Planning Process (3). Cross-listed as POLS 560. 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 elected officials as participants in the planning process.

PADM 564, Comparative Public Administration (3). Cross-listed as POLS 564. Studies the administrative system of selected developed and developing countries emphasizing the various methods and approaches of comparative analysis and the relationships between administrative institutions and their environmental settings.

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 587, Administrative Theory and Behavior (3). Cross-listed as POLS 587. A study of organization theory and the various approaches to the study of organization.


PADM 621, Environmental Law (3). Cross-listed as CJ 621 and ETH S 621. An in-depth analysis of emerging federal, state, and local legislation; judicial decisions; and administrative policies in environmental protection. Explores the roles of a variety of governmental agencies and nongovernmental organizations as related to prevention and enforcement processes of environmental protection. Includes issues in the development and implementation of environmental policy. Prerequisite: an approved methods class.

PADM 625, Computer Applications for Public Policy (3). Cross-listed as CJ 625, ETH S 625, and GERON 625. Familiarizes students with major types of software applications for microcomputers and their use in public policy analysis.

PADM 651, Dispute Resolution (3). Cross-listed as CJ 651, ETH S 651, and GERON 651. Examines a range of topics including causation, typologies, communications, mediation, arbitration, and other dispute resolution techniques. Includes criminal and victim mediation and 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 macroeconomic 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.
P ADM 702. Research Methods (3). Cross-listed as CJ 702, ETH S 702, GERON 702. Acquaints students with applied public policy research methods. Emphasizes locating, collecting, appraising, and utilizing both primary and secondary sources of data of the type used in policy, planning, and administrative research. Students must complete several short research projects.

P ADM 710. Public Sector Organizational Theory and Behavior (3). Cross-listed as POL S 710. Reviews the scope of the field of public administration, including a survey of key concepts and schools of thought underlying the field, and examines issues shaping the future development of the field.

P ADM 725. Public Management of Human Resources (3). Cross-listed as POL S 725. Surveys the major areas of management of human resources in the public sector. Includes hiring, training, evaluation, and pay promotion policies. Emphasizes the laws governing public personnel management and on the unique merit, equal employment opportunity, productivity, unionization, and collective bargaining problems found in the public sector.

P ADM 745. The Environment of Public Administration (3). Surveys the political and governmental institutions that underlie the practice of public administration. Includes political systems, constitutional authority, legislative process, intergovernmental relations, and government regulation.

P ADM 750. Public Administration Workshops (1-3). Specialized instruction using variable format in a public administration or urban affairs relevant subject. Repeatable for credit.

P ADM 755. Special Topics in Urban and Public Affairs (3). Provides students with an opportunity to engage in advanced study in topics that are of immediate concern and arise only occasionally. Content varies with issues that arise, student needs, and faculty expertise. Directed to Master of Public Administration students. May be repeated if topics are different. Prerequisite: instructor's consent.

P ADM 760. State and Local Economic Development (3). Explores the roles of state and local governments and officials in economic development through the use of case studies. Examines financing in economic development from the perspectives of public purpose and community objectives.

P ADM 765. Public Sector Economics (3). Cross-listed as ECON 765. An analysis of fiscal institutions and decision making in the public sector of the American economy, budget planning and execution, taxation, debt, and fiscal policy. Prerequisites: ECON 201 and 202 or instructor's consent.

P ADM 775. State and Local Government Law (3). Exposes students to the legal principles which undergird the foundation of governmental operation and administration.

P ADM 785. Public Works Administration (3). Introduces public works administration and management. Includes discussion of public works professionals; public works organizations and institutions; infrastructure planning, policy, and project analysis; procurement, purchasing, and contract administration; geographic information systems; and transportation, water, waste water, and surface water system construction, maintenance, and replacement.

P ADM 798. Independent Study (1-3). For graduate students to pursue research in areas not normally covered in course work. Repeatable for credit with departmental consent. Prerequisite: departmental consent.

Courses for Graduates Only

P ADM 802. Quantitative Methods for Public Sector Professionals (3). Cross-listed as CJ 802 and GERON 802. Uses standard microcomputer statistical software and analysis to introduce statistics and quantitative analysis for organizational and policy decision making. Emphasizes the application of statistics and writing with quantitative evidence to real public sector policy questions. Assumes little or no background in statistics and software applications. Prerequisite: either CJ 702, GERON 702, or PADM 702.

P ADM 825. State and Local Government Administration (3). Examines administrative leadership in state and local government through case study and field experience. Draws on the experience of professional public managers. Designed for students nearing completion of the Master of Public Administration degree and planning careers in public management. Prerequisite: instructor's consent.

P ADM 842. Administration in Local Government (3). Cross-listed as POL S 842. Examines administrative processes and problems in local government, including the role of the professional chief executive. Examines problems from the following: labor-management relations, program evaluation, county government reform, governmental decentralization, citizen participation, grant-in-aid programs, interlocal cooperation, affirmative action requirements, and service contracting. Prerequisite: POL S 317.

P ADM 845. Public Policy Analysis and Program Evaluation (3). Cross-listed as CJ 797. 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. Focuses on methodologies for collection of data and their use in the assessment of programs and program impacts. Prerequisites: an approved statistics class and an approved methods class.

P ADM 865. State and Local Government Finance (3). Cross-listed as ECON 865, HIST 865, and PADM 865. Analyzes state and local government expenditure and revenue systems; introduces state and local financial administration. Prerequisites: PADM 765 or instructor's consent.

P ADM 866. Public Financial Management (3). Deals with selected aspects of state and local government financial management. Introduces fund accounting, costing of government services, capital budgeting, debt management, and asset management. Prerequisite: PADM 865 or instructor's consent.

P ADM 867. State and Local Government Budgeting (3). Cross-listed as POL S 867. Analyzes the development and utilization of the budgetary process in government administration emphasizing the budget in relation to its role in policy formulation and management. Prerequisite: PADM 865 or instructor's consent.


P ADM 890. Internship (3). Integrates academic pursuits and practical experience. Students admitted to the internship are assigned to work in an approved government, community, or private organization for a minimum of nine months. Prerequisites: completion of all PADM core courses and 6 hours of additional graduate-credit courses.

P ADM 895. Public Decision Making (3). Focuses on decision making by public managers through case study method. Reviews models of public decision making. Explores public management from the perspective of public purposes, politics, organizational results, and ethics. Prerequisites: successful completion of all other core courses in the MPA or instructor's consent.

P ADM 897. Advanced Research Methods (3). Cross-listed as CJ 897 and GERON 897. Advanced research course; studies the selection and formulation of research problems, research design, hypothesis generation, scale construction, sampling procedures, and data analysis and interpretation. Prerequisite: either CJ 597, GERON 597, ETH S 597, PADM 597, or equivalent, and PADM 702 and 802.

P ADM 898. Applied Research Paper (3). Original research project under a faculty member's direction. Project requires conceptualization, execution, preparation of a written report, and defense of that report before a faculty committee. Intended to be a major project or capstone activity completed at the end of a student's program of study. It must be an individual effort, not a group project. Prerequisite: graduate-level research methods class.

Women’s Studies (WOM S)

The Center for Women’s Studies is a resource and research center for scholarship concerning women. The center offers courses and administers a major and a minor in women’s studies, a discipline which presents an analysis of gender in society through the use of a variety of approaches, including feminist theory. Students investigate such areas as changing gender role expectations, American and global social
and cultural concerns, and the professional and
dominant contributions of women to the culture,
especially concerning the role of women in the arts
and sciences. Women’s studies may also be pursued
as a part of a dual major by students whose intellec-
tual or vocational interests are best served by a focus
on women’s studies in conjunction with another aca-
demic field.

**Major.** Within the major in women’s studies, stu-
dents may focus on either humanities or social sci-
ence women’s studies courses, supplementing each
track with interdisciplinary courses that apply to
either focus. The major requires a minimum of 30
hours of course work with no more than 3 hours in
courses numbered 140 to 149. Other 100-level cours-
es and workshops may not be counted for the major,
except for 190, which may be counted.

In addition to women’s studies courses, appropri-
ate cross-listed courses for the major may be selected
from such fields as philosophy, sociology, social
work, history, English, anthropology, religion, ethnic
studies, psychology, communication, political sci-
cence, and criminal justice. Students considering
the major in women’s studies should be advised by a
women’s studies faculty member regarding their
academic programs, their vocational goals, and the
selection of a humanities or social science track in the
women’s studies major.

To pursue the **Humanities** focus, the following com-
binations of courses are possible:

- 12 hours of required courses, WOM S 287,
  387, 587, and one of the following:
  WOM S 391, 482, or 586
- 15 hours of **Humanities** women’s studies
  courses (group 2 below) or combination
  of **Humanities** and **Interdisciplinary** courses
  (group 1 below)
- 3 hours of **Social Science** women’s studies
courses (group 3 below)

To pursue the **Social Science** focus, the following com-
binations of courses are possible:

- 12 hours of required courses, WOM S 287,
  387, 587 and one of the following:
  WOM S 391, 482, or 586
- 15 hours of **Social Science** women’s studies
  courses (group 3 below) or a combination
  of **Social Science** and **Interdisciplinary** courses
  (group 1 below)
- 3 hours of **Humanities** women’s studies courses
  (group 2 below)

Group 1: **Interdisciplinary** women’s studies courses:

- WOM S 190, 287, 380K, 387, 391, 481, 482, 570, 586,
  587, 635
- WOM S 140, 330, 331, 332, 333, 338, 511, 512, 521, 522,
  523, 535, 536, 537

Group 2: **Humanities** women’s studies courses:

- WOM S 141, 142, 240, 316, 325, 340, 342, 345, 361, 516,
  533, 534, 541, 542, 543

Group 3: **Social Science** women’s studies courses:

- WOM S 190, 287 and 387. Restrictions on 100-
  level courses in the major (see above) also apply to
  the minor.
- WOM S 141. Women’s Sexuality (1). Presents informa-
tion on women’s sexuality from physiological, psychologi-
cal, 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 dysfunc-
tion, and communications in sexual relationships.
- WOM S 142. Domestic Violence (1). Deals with the roots
  of domestic violence embedded in family roles, legal sys-
tems, religious beliefs, and the psychology of women, chil-
dren, and men. Also covers the consequences and prevention
of family abuse. Includes discussion of literature and films.
- WOM S 150. Workshops (1-2). Topics vary by semester.
  Past topics have included assertion training (introductory
  and advanced) and rape information and prevention.
- WOM S 150C. Assertion Training for Women (1).
  Workshop: teaches women to develop assertion skills. Considers
  some of the changing roles and values of women in our
  society today and how these create a need for women to be
  assertive in their professional and personal choices.
  Examines barriers that exist to assertive behavior and ways
  to overcome them. Graded S/U.
- WOM S 150J. Rape Information and Pre vention (1).
  Workshop: explores the cultural myths and stereotypes
  about rape, the legal system, methods of self-protection,
  community resources providing help for victims, and other
  related issues. Primary focus on prevention of rape itself.
- WOM S 150M. Advanced Assertion Training (1). For
  students who have taken WOM S 150C. Applies assertion
  principles and behaviors to specific topics such as employ-
  ment, male-female relations, sexuality, parent-child rela-
tions, and organized group activity. Prerequisite: WOM S
  150C.
- WOM S 180. Special Topics (1-3). Topics vary by
  semester.
- WOM S 190. The American Woman in Popular Cul-
ture (3). General education introductory course. Examines how
women of various races, classes, and ethnicities are repre-
sented in a wide variety of popular media. Encourages the
critical analysis of why and how these popular representa-
tions are politically and socially significant in shaping soci-
ety’s perceptions of “the American woman.” Also explores
women’s popular genres.
- WOM S 240. Ethnic Women in America (3). Cross-listed
  as ETH S 240.
  General education introductory course. Examines women’s
  efforts to claim their identity from historical, legal, and
  social perspectives. Includes recent laws relating to women;
  contemporary issues (such as rape, day care, working
  women, the future of marriage); agencies for change; theo-
ries of social change; and the relationship of women’s rights
to human rights.

Group 2: **Interdisciplinary** women’s studies courses:

- WOM S 141. Women’s Sexuality (1). Presents informa-
tion on women’s sexuality from physiological, psychologi-
cal, 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 dysfunc-
tion, and communications in sexual relationships.
- WOM S 142. Domestic Violence (1). Deals with the roots
  of domestic violence embedded in family roles, legal sys-
tems, religious beliefs, and the psychology of women, chil-
dren, and men. Also covers the consequences and prevention
of family abuse. Includes discussion of literature and films.
- WOM S 150. Workshops (1-2). Topics vary by semester.
  Past topics have included assertion training (introductory
  and advanced) and rape information and prevention.
- WOM S 150C. Assertion Training for Women (1).
  Workshop: teaches women to develop assertion skills. Considers
  some of the changing roles and values of women in our
  society today and how these create a need for women to be
  assertive in their professional and personal choices.
  Examines barriers that exist to assertive behavior and ways
  to overcome them. Graded S/U.
- WOM S 150J. Rape Information and Pre vention (1).
  Workshop: explores the cultural myths and stereotypes
  about rape, the legal system, methods of self-protection,
  community resources providing help for victims, and other
  related issues. Primary focus on prevention of rape itself.
- WOM S 150M. Advanced Assertion Training (1). For
  students who have taken WOM S 150C. Applies assertion
  principles and behaviors to specific topics such as employ-
  ment, male-female relations, sexuality, parent-child rela-
tions, and organized group activity. Prerequisite: WOM S
  150C.
- WOM S 180. Special Topics (1-3). Topics vary by
  semester.
- WOM S 325. Women in the Political System (3).
  Cross-listed as POLS 325. Examines the political process of policy
  making, using policies of current interest concerning women.
  Examines the association of societal gender role expecta-
tions with existing and proposed public policies that pertain to women’s lives. Prerequisite: 6 hours of social
  science or instructor’s consent.
- WOM S 330. Women’s Personal Narratives (3). Cross-listed
  as ENGL336. Explores the literary genre of the jour-
  nal 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: ENGL101 and 102.
- WOM S 332. Goddesses in Myth (3). Traces the devel-
opment of the characteristics, powers, and ideas about clas-
sical Greek and Roman as well as ancient Northern Euro-
pean goddesses from a pre-historic, world-wide worship of
female deities. Examines the female-dominated cultures and
religions of the paleolithic and neolithic and then fol-
ows the transition from this ancient worship to the classi-
cal and Northern European conception of goddesses.
- WOM S 333. Women and Religion (3). Cross-listed as
  REL333.
- WOM S 338. Philosophy of Feminism (3). Cross-listed
  as PHIL338.
- WOM S 340. Human Sexuality (3). Cross-listed as SC
  WK340.
- WOM S 345. Women and Dependencies (3). Provides
  information about women’s dependencies and their rela-
tionship to constructions of gender. Examines dependence in substances and processes (alcohol, street and prescription drugs, eating disorders, and dysfunctional relationships) in their social and personal context. Examines theories of treatment and recovery in relation to feminist theory and women's roles in co-dependency.

-WOM S 361. Women and Work (3). General education further study course. Examines the image and reality of women's employment from minimum wage to corporate board rooms, as well as women's unpaid work. It explores the impact of cultural values, societal arrangements, and public policy on occupations, wages, and family life.

-WOM S 380. Special Topics (1-3). Focuses on intermediate topics of interest to women's studies.

-WOM S 380K. Women and Peace (3). Explores many facets of women's strategies for interpersonal and political peacemaking. Also explores women's pacifist and patriotic strategies, including service, resistance, and direct actions.

-WOM S 387. Women in Society: Cultural Images (3). General education further study course. Examines the roots of ideas about women in our society and women's responses to those ideas as they have attempted to define themselves. Emphasizes cultural images of women in literature, art, myth, philosophy, religion, psychology, education, and politics. Also considers women in other cultures and other times and contemporary women's visions of an alternative future.

-WOM S 391. Women's Global Issues (3). General education further study course. Explores women's issues from a global perspective in relation to policies approved by the International Women's Decade conferences of the United Nations. Emphasizes understanding the impact of nationalism, race, class, and cultural values in creating obstacles to women's full participation in society. Explores strategies for achieving full human rights for women. Prerequisites: one course in women's studies and one course in history or political science.

-WOM S 400. Special Topics (1-3). Provides an introduction to the exploration of various women's studies' themes.

-WOM S 481. Cooperative Education (1-4). Provides a field placement that integrates theory with a planned and supervised professional experience designed to complement and enhance the student's academic program. Offered Cr/NCr only.

-WOM S 482. Latina in Culture and Society (3). Examines what it means to be a Latina and a feminist in U.S. culture, confronting racism and sexism as well as being empowered through Latina identity. The exploration of Latina identity results in creative transformation and a new understanding of the relationship of self to community. Materials drawn from Chicana feminist studies in prose, poetry, criticism, and film, and from presentations by guest speakers.

-Courses for Graduate/Undergraduate Credit

-WOM S 511. Women in Early America, 1600-1830 (3). General education further study course. Traces women's contributions and experiences in building the U.S., 1600-1830s. Includes both conventional and newly developed methodologies in women's history research.

-WOM S 512. Women and Reform in America, 1830-1880 (3). General education further study course. Examines the history of women in the U.S., 1830-present. Focuses especially on women's involvement in various social reform activities, efforts which eventually led to work toward equal rights and improved conditions for women.

-WOM S 516. Sociology of Gender Roles (3). General education further study course. Cross-listed as SOC 516. Analyzes the institutional sources of male and female roles, the source of changes in these roles, the consequent ambiguities and conflicts. Prerequisite: SOC 111.

-WOM S 522. Contemporary Women's Art (3). Examines art by women in the contemporary world. Emphasizes the impact of the women's movement on the creative energies and on the career directions and opportunities of these women in the arts.

-WOM S 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.

-WOM S 532. Women in Ethnic America (3). Cross-listed as ETH S 532 and 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.

-WOM S 533. Women and the Law (3). Introduces the legal aspects of women's rights, including the equal rights amendment to the U.S. Constitution; right to choose a name; sex discrimination in employment, education, and credit; welfare; and criminal justice. Also considers women in the field of law, such as lawyers and legislators.


-WOM S 535. Literary Images of Women: Diverse Voices (3). Cross-listed as ENGL 535. Explores literature written in English by women of diverse ethnic, racial, class, and other backgrounds as well as of varying sexual orientations, ages, and degrees of physical ability. Analyzes materials as literary works and as expressions of women's differences from one another. Works are selected based on their specific attention to the question of gender as it intersects with other elements of culture. Prerequisites: ENGL 101, 102, and one course in literature.

-WOM S 536. Writing by Women (3). Cross-listed as ENGL 536. Explores various themes in critical approaches to literature composed by women writers, especially those whose works have been underrepresented in the literary canon. Genres and time periods covered, critical theories explored, and specific authors studied vary in different semesters.

-WOM S 541. Women, Children, and Poverty (3). General education issues and perspectives course. Cross-listed as SOC Wk. 541. Addresses the problem of poverty among women in the U.S. today, and examines existing and proposed public policies designed to alleviate the problem. Explores theoretical models of poverty policy analysis and the role of values in their formulation and implementation. Discusses issues of age, race and family; special attention is given to poverty among Kansas families. Prerequisite: 6 hours of social science.

-WOM S 543. Women and Health (3). Cross-listed as NURS 543. Examines the historical development of the women's health movement, focuses on current issues relevant to women and health care, and explores the roles of women in the health care system and as consumers of health care. Examines self-care practices of women and studies ways to promote positive health practices. Open to non-nursing majors.

-WOM S 570. Directed Readings (1-3). For students who wish to pursue special reading or research projects not covered in course work. Prerequisite: instructor's consent.

-WOM S 580. Special Topics (1-3). Focuses on advanced topics of interest to women's studies.

-WOM S 586. Gender, Race, and Knowledge (3). General education issues and perspectives course. Examines the impact of gender and race on knowledge (understanding of objects, people, events, and activities). Assumes that gender, race, and knowledge are socially constructed categories. Concerned with science as a practice of representation. Focuses on the "white masculinist" ideas or beliefs that motivate and affect the practice of academic disciplines. Considers: What is the relationship between the making of masculinity and femininity and science? How are gender and race woven into science and social science and with what results? Does the entrance of white women and people of color into the sciences and humanities change how they are practiced? Do they produce significantly different understanding about the world? Central premise is that all knowledge emerges from some type of love or passion. What types of passion produce knowers, knowing, and the known?

-WOM S 587. Theories of Feminism (3). Because feminism is not a single ideological stance or perspective, course examines a variety of ideas underlying feminist cultural critiques and visions for social change. Discusses the
contribution of women’s studies to various academic disciplines. Prerequisites: WOM S 287 and 387, or 6 hours of women’s studies courses, or instructor’s consent.

WOM S 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.

Courses for Graduate Students Only

WOM S 870. Directed Readings. (2-3). For graduate students to pursue research in areas not normally covered in course work. Repeatable for credit with departmental consent. Prerequisite: instructor’s consent.

WOM S 880. Seminar in Women’s Studies (3). Intensive study of selected women’s studies topics. Seminar discussion, reports, and research project. Previous topics include Advanced Theories of Feminism and Contemporary Women’s Fiction. Repeatable for credit with departmental consent. Prerequisite: instructor’s consent.

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.