



THE COLLEGE OF ARTS AND SCIENCES
Advising Offices are Located in:

105 Bowman Hall
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<http://as.kent.edu>

COLLEGE OF ARTS AND SCIENCES

THE MISSION OF THE COLLEGE

The College of Arts and Sciences offers a wide range of programs and coursework in the liberal arts, including the humanities, the social sciences, and the natural and mathematical sciences. The college is committed to the principles, purposes and values of a liberal arts education. The traditional liberal arts focus on the most fundamental and enduring aspects of human thought and human civilization. For this reason, the liberal arts provide both a rich variety of fields of academic specialization and a vital base for professional, creative and technological study.

Students pursuing degrees in the College of Arts and Sciences are introduced to a variety of disciplinary and intellectual perspectives through the college's General Requirements. These requirements provide a solid foundation in essential communications skills and mathematics; a strong and varied background in the humanities, the social sciences and the natural sciences; and, for most students, study of a foreign language as a tool for approaching another culture. These requirements thus supply a broad acquaintance with the traditional liberal arts and a firm basis for more specialized study.

All students in the college select at least one area of academic specialization. This area of specialization may be within one of the traditional disciplines, it may be interdisciplinary or it may be self-designed. Students may also pursue a second major area or one or more minor areas of specialization.

In addition to general requirements and the specific requirements within the areas of specialization, students have elective hours that may be used to pursue secondary areas of specialization, to explore areas of general interest or to take additional coursework within the area of specialization or in related areas. Elective coursework in the liberal arts provides not only a sound basis for more specialized learning but also intellectual enrichment that is of lasting value to any student in the university.

Study in the liberal arts provides a basis for success in a wide variety of careers. In addition to preparing students for later professional study, it provides communication skills, analytical tools and mental flexibility necessary for success in adapting to changing careers in a changing world. Above all, study in the liberal arts prepares students for a lifetime of learning experiences and for personal and intellectual as well as professional growth.

ORGANIZATION OF THE COLLEGE

The college consists of 17 academic departments. The departments in the area of the humanities include English, History, Modern and Classical Language Studies, Pan-African Studies and Philosophy. Departments in the social sciences include Anthropology, Geography, Justice Studies, Political Science, Psychology and Sociology. The natural and mathematical sciences include the Departments of Biological Sciences, Chemistry, Computer Science, Geology, Mathematics and Physics.

In addition to these academic departments, the college also houses the Chemical Physics Interdisciplinary Program and 22 centers and institutes, including the Center for International and Comparative Programs, the Center for Applied Conflict Management, the Lyman L. Lemnitzer Center for NATO and European Community Studies, and the Ethnic Heritage Program. Numerous interdisciplinary curricular programs are also contained within the college.

ACADEMIC PROGRAMS

The college offers three undergraduate degree programs: the Bachelor of Arts, the Bachelor of Science and the Bachelor of General Studies. In addition, the college offers five graduate degree programs: Master of Arts, Master of Public Administration, Master of Science, Master of Liberal Studies and Doctor of Philosophy. Information on these programs can be found in the Kent State University *Graduate Schools Catalog*.

The College of Arts and Sciences also offers premajors in three areas: humanities, social sciences, and natural sciences and math. Students may be admitted to the College of Arts and Sciences by declaring a specific major, as described below. Or, students may select one of the available premajors, as described on Pages 105-106.

Bachelor of Arts

The Bachelor of Arts (B.A.) is the traditional liberal arts degree. It emphasizes a broad background in the liberal arts, with a focus in a major field of study. The college currently offers 30 departmental and interdisciplinary majors within the B.A. degree.

The B.A. degree is designed to impart intellectual breadth and educational diversity. Students who graduate with the B.A. have achieved competence in a major field of specialization within the traditional liberal arts. Such students have also become acquainted with a broad range of human ideas, cultures and institutions.

Program requirements for all majors in the B.A. degree in the College of Arts and Sciences are listed beginning on Page 113.

Departmental Majors

Most students pursuing the Bachelor of Arts degree select one of the traditional departmental majors as their field of specialization. These traditional majors focus on one particular discipline within the humanities, social sciences or natural and mathematical sciences. Most of the coursework required for a departmental major will be taken within the department that houses the major discipline.

Most B.A. departmental majors allow for a fairly large number of elective hours within the undergraduate program. These elective hours may be effectively used to pursue intellectual interests outside the major or for personal enrichment; study abroad can work well in such programs. Students often find it rewarding to apply their elective hours to a second major or a minor. Such combinations of programs can generally be accommodated within the 121 hours required for graduation. Students may also choose to combine a departmental major within the B.A. degree with another degree program, either the Bachelor of Science in the College of Arts and Sciences or another degree in another college.

Whether students pursue a single field of specialization or a combination of such fields, the liberal arts degree with a departmental major can provide the analytical and communications skills needed for success in a wide range of careers. Students with departmental majors enter the professions, business and industry, government and civil service, and secondary and higher education.

Departmental majors in the Bachelor of Arts program in the College of Arts and Sciences are:

- American Sign Language
- Anthropology (Cultural)
- Biology
- Chemistry
- Economics
- English
- French
- Geography
- Geology
- German
- History
- Justice Studies
- Latin
- Mathematics
- Pan-African Studies
- Philosophy
- Physics
- Political Science
- Psychology
- Russian
- Sociology
- Spanish

Interdisciplinary Majors

B.A. interdisciplinary majors combine coursework from several traditional disciplines. Although drawn from several disciplines, the courses in any interdisciplinary major will have a common factor that reflects the focus of the program. In the interdisciplinary programs, courses in the various divisions of the college—humanities, social sciences, and natural sciences and math—and courses offered in the other colleges of this university are integrated to provide a comprehensive view of the complexities of the field of specialization. This integration of academic disciplines can provide a more coherent interpretation of certain areas of study than is possible through any one traditional field.

Like the departmental majors, the interdisciplinary majors may be combined with a second major, a minor or a separate degree. With the exception of earth science and the individualized major, the college's interdisciplinary majors require that students combine social

and cultural study. For this reason, the interdisciplinary majors combine particularly well with majors or minors in the humanities, foreign languages and the social sciences.

Such interdisciplinary study provides the same liberalizing qualities as the traditional departmental majors. It also provides a background appropriate to careers in many fields, including government and education.

The interdisciplinary majors with an international focus are particularly adaptable to various forms of study abroad. Kent State University students may participate in a variety of overseas study and foreign exchange programs operated by the university; they may also, with permission, participate in similar programs offered by other colleges and universities.

Because the interdisciplinary majors are not housed within specific departments, students interested in an interdisciplinary major should consult the coordinator of that program. Interdisciplinary majors in the B.A. program in the College of Arts and Sciences are:

- American Studies
- Applied Conflict Management
- Classics
- Earth Science
- Ethnic Heritage
- The Individualized Major
- International Relations
- Latin American Studies
- Paralegal Studies
- Soviet and East European Studies

Bachelor of Science

The Bachelor of Science (B.S.) degree places a somewhat greater and earlier emphasis on specialization in a chosen field. The college offers 20 fields of concentration as well as several preprofessional programs involving coursework in the natural sciences within the B.S. program.

Although it permits a greater degree of specialization than the B.A. degree, the B.S. degree also encourages intellectual breadth and educational diversity. Students who graduate with the B.S. have acquired a firm basis in the traditional liberal arts, along with substantial preparation in a field of concentration. In the process, the students have become acquainted with the content and methodology of these disciplines.

Fields of Concentration

Major areas of study within the B.S. program are referred to as fields of concentration. A field of concentration within the B.S. degree usually encompasses several allied disciplines. It is designed to provide intensive study in one area, with supplemental study in related areas.

Students who intend to pursue graduate study or advanced research in a scientific discipline often choose the B.S. degree because of its intensity of specialization. For some students, however, the B.A. degree may be preferable because of its greater flexibility.

Because of the number of hours required in a field of concentration, students cannot always combine a field of concentration with another area of specialization within the 121 hours required for graduation. In some cases, however, combining areas of specialization can be particularly rewarding. Students who wish to combine programs should seek advice early and plan their schedules carefully.

The program requirements for the departmentally based fields of concentrations in the B.S. program in the College of Arts and Sciences are listed beginning on Page 130.

Departmentally based fields of concentration in the B.S. program in the College of Arts and Sciences are:

- Anthropology (Biological, Archaeology)
- Applied Mathematics
- Biology
- Botany
- Chemistry
- Computer Science
- Conservation
- French Translation
- Geology
- German Translation
- Mathematics
- Physics
- Russian Translation
- Spanish Translation
- Zoology

The college offers an interdisciplinary B.S. in biotechnology.

Three-Plus-One Programs

Students who choose to pursue Three-Plus-One programs take three years of preprofessional study at Kent State University, followed by a year or more of intensive professional training at an accredited professional school or clinical facility. Upon the satisfactory completion of this professional training, the B.S. degree from the College of Arts and Sciences at Kent State University is awarded.

Three-Plus-One programs are designed for students with a well-defined, specific, professional career goal. Currently, the College of Arts and Sciences offers a Three-Plus-One program in medical technology. Because of the intensive, professional focus of these programs, students pursuing them should work closely with their faculty advisers. Students who are interested in any of these programs should consult the Department of Biological Sciences, 256 Cunningham Hall, for further information.

The program requirements for the Three-Plus-One programs offered under the B.S. program in the College of Arts and Sciences are listed beginning on Page 142.

Premedical Programs

The College of Arts and Sciences offers programs for students who wish to pursue professional careers in medicine. These premedical programs are designed to provide a sound basis in biology and chemistry, along with coursework in physics and mathematics. The premedicine, preosteopathy, preveterinary medicine and pre-dentistry programs are intended to prepare students for advanced, professional study in the medical sciences.

These programs meet the coursework requirements for admission to most medical schools. Students who wish to pursue a premedical program would be well advised, however, to check carefully the admissions requirements of the professional schools they wish to enter. Students should also regularly seek advice from their faculty advisers.

Students may pursue premedical programs under the Bachelor of Arts degree, the Bachelor of Science degree or a carefully designed Bachelor of General Studies degree. The premedical program serves as a secondary major for students in the B.A. and B.S. programs. Students who elect the B.A. or B.S. degree must also complete a primary major or field of concentration. A premedical major, along with the primary major, may also be combined with minor programs.

The program requirements for the premedical programs in the College of Arts and Sciences are listed beginning on Page 143.

Integrated Life Sciences (B.S./M.D.)

Kent State University participates in a combined program with the *Northeastern Ohio Universities College of Medicine* (NEOUCOM). This is an intensive six-year program that requires study during the summer as well as during the academic year. Admission to the program is highly selective.

Students admitted to the *Northeastern Ohio Universities College of Medicine* through Kent State University are awarded the B.S. degree in integrated life sciences by the College of Arts and Sciences and the M.D. degree by NEOUCOM at the completion of their six-year program.

Further details concerning the B.S./M.D. program can be found beginning on Page 145.

Bachelor of General Studies

The Bachelor of General Studies (B.G.S.) degree is intended for students whose educational needs are not met by traditional fields of specialization. The B.G.S. is a nonmajor degree program that provides students with a maximum of freedom and flexibility in developing individualized programs that serve their specific, unique educational goals. The nontraditional nature, purposes and requirements of this degree require students pursuing the B.G.S. to work closely with the college office in planning their academic programs.

The B.G.S. degree has special admission procedures and requirements. This degree may be used to satisfy an interest in a wide range of areas appropriate to a general education, to pursue a broad concentration in an academic area such as the humanities, the social sciences, or the natural and mathematical sciences, or to prepare for further study in a professional area (law, medicine, urban planning, public administration, etc.) by combining courses from different disciplines.

Students who have graduated with the B.G.S. degree have gone on to pursue careers in many fields, ranging from business to law and medicine. Some graduates have pursued further study in a traditional academic discipline. Students often choose the B.G.S. program because it allows them to select an individually tailored set of courses that fulfills needs of a career they are already pursuing.

The B.G.S. may not be combined with a regular major or field of concentration. However, the premedical major may be taken as part of a B.G.S. In addition, any of the minors listed beginning on Page 149 as available to arts and sciences students may be taken as minors with the B.G.S.

The program requirements for the B.G.S. program in the College of Arts and Sciences are listed beginning on Page 144.

Minor Programs

Students pursuing a B.A. degree or a B.S. degree in the College of Arts and Sciences may undertake, in addition to the primary major or field of concentration, a secondary area of specialization or minor program. In addition, students pursuing the B.G.S. degree may incorporate minors within their self-designed programs. Minors provide one way of balancing and integrating an undergraduate course of study. Other routes to the same goal include double majors, dual degrees and single majors with carefully selected electives. Because there are many ways of planning an effective undergraduate program, minors are entirely voluntary. If they wish to do so, students may elect a minor, or more than one minor.

A minor is intended to provide an area of specialization that is less detailed and less extensive than a major program. For this reason, minors require less to complete than majors. They usually provide a general introduction to the discipline or field of study, along with a few more specialized upper-division courses. Students should be aware that a minor generally will not prepare them for advanced study or research in the field without further undergraduate coursework.

Minors may be chosen to complement the major field of study; that is, they may be in a field closely related to the major. Students may also choose minors that are in no way related to the major pro-

gram. In such a case, the minor is usually chosen because of serious personal interest in the field. Minors allow students to pursue their own interests within a structured context.

Two types of minor programs are offered within the College of Arts and Sciences. Students may pursue minors within individual departments, or they may elect interdisciplinary minor programs that include coursework from several departments. Certificates of achievement are awarded to students who successfully complete the interdisciplinary minors; these certificates are described more fully below.

All of the minor programs offered by the College of Arts and Sciences are available to any student pursuing a baccalaureate degree at Kent State University. Students who are pursuing a major degree program outside the College of Arts and Sciences should contact their school or college for further details and to declare these minors.

Program requirements for all minors in the College of Arts and Sciences are listed beginning on Page 149.

Departmental Minors

In a departmental minor, coursework is taken entirely or almost entirely within a single department. Students pursuing such a minor will take many of the same courses that majors in the discipline take, but the courses will be fewer in number and may be different in their distribution. Departmental minors provide a detailed introduction to a traditional discipline, but they do not provide the depth supplied by a major program. A departmental minor may be combined with any major or field of concentration within the college except for the major and/or field of concentration that bears the same title.

Departmental minors in the College of Arts and Sciences are:

- American Sign Language
- Anthropology
- Applied Conflict Management
- Applied Mathematics
- Biological Sciences
- Business French
- Business German
- Business Russian
- Business Spanish
- Chemistry
- Computer Science
- Economics
- English
- French
- Geography
- Geology
- German
- Greek
- History
- Justice Studies
- Latin
- Mathematics
- Pan-African Studies
- Philosophy
- Physics
- Political Science
- Psychology
- Russian
- Sociology
- Spanish

Interdisciplinary Minors

Like departmental minors, interdisciplinary minors may be elected in addition to the required major or field of concentration. They may also be incorporated within a B.G.S. program. Like departmental minors, interdisciplinary minors provide a limited specialization in a particular field of study. Interdisciplinary minors require coursework drawn from several disciplines. These courses have an element in common that reflects the focus of the program. Because the interdisciplinary minors include coursework from several disciplines, they can provide a clearer view of certain areas of study than is possible through any one traditional field. The interdisciplinary minors may be combined with any major or field of concentration within the college.

A certificate is awarded upon completion of an interdisciplinary minor indicating that the students have completed a focused course of study in the area. The certificate does not indicate the equivalent of preprofessional training, nor does it imply that the students have met the standards for professional certification of an external professional body.

Certain interdisciplinary minors may be incorporated as the core studies emphasis area within the ethnic heritage interdisciplinary major in the Bachelor of Arts program.

Interdisciplinary minors in the College of Arts and Sciences are:

- African Studies
- American Studies
- Ancient, Medieval and Renaissance Studies
- Asian Studies
- British Studies
- Cartography
- Classics
- Climatology
- Comparative Literature
- German Studies
- Health-Care Ethics
- Hellenic Studies
- Jewish Studies
- Lesbian, Gay, Bisexual and Transgendered Studies
- Lithuanian Studies
- North Atlantic Security Studies
- Paralegal Studies
- Pre-Law
- Religion Studies
- Romanian Studies
- Russian Studies
- Urban Studies and Planning
- Women's Studies
- The Writing Minor

Minors in Other Colleges

In addition to the minors available within the college, arts and sciences students may also select from a large number of minor programs offered by the other colleges and independent schools at Kent State University. Information concerning the minors available to arts and sciences students in the College of Business Administration, the College of Communication and Information, the College of Education, and the College of Fine and Professional Arts can be found beginning on Page 170. It is essential that students interested in these programs seek advice from both the office of the Col-

lege of Arts and Sciences and the office of the college responsible for the minor. To successfully complete a minor in another college, arts and sciences students must meet the cumulative GPA requirement for that minor.

Associate's Degree Programs

The college cooperates with the Division of Regional Campuses in making available associate's degrees in general studies to students enrolled at the university's seven Regional Campuses. These two-year degree programs may be either technical or general in nature. The technical associate's degrees provide technical skills that focus on specialized areas of employment, while the general Associate of Arts and Associate of Science provide a basis for the future study of a bachelor's degree. They are available only at the Regional Campuses. Specific information concerning these degrees is contained in the "Regional Campuses" section of this *Catalog*.

Nondegree Programs

Those who wish to take coursework for personal enrichment or to enhance professional skills but do not seek a degree may be admitted to the university as a special "nondegree student." Nondegree students may enroll for one year or 32 hours. If nondegree students wish to become candidates for a degree in the College of Arts and Sciences, they must formally declare their intended major and promptly begin to complete requirements omitted from the previous coursework.

The college also provides some nondegree preprofessional programs for students planning to transfer to professional schools. These programs are described in the section titled "The Liberal Arts as a Career Base."

ACADEMIC ADVISING

The College of Arts and Sciences provides a comprehensive advising system that is designed not only to help students reach their academic goals but also to assist them in achieving the greatest benefit from their academic programs. Appropriate academic advice can make a major contribution to students' academic success. Students should actively seek out and use the advising resources available.

Premajors

Many students decide upon a major at the time of admission to the College of Arts and Sciences. Those students enter directly into a major program and do not begin as a premajor. Other students decide upon a major sometime after beginning their college study. During the time when they are more clearly discovering their interests, students in the College of Arts and Sciences will become premajors. Students will select one of three premajors areas: 1) humanities, 2) social sciences, or 3) natural sciences and math. Specific disciplines within each of these areas are:

Humanities

English
History
Modern and Classical Languages
Pan-African Studies
Philosophy

Social Sciences

Anthropology
Economics
Geography
Justice Studies
Political Science
Psychology
Sociology

Natural Sciences and Math

Biological Sciences
Chemistry
Computer Science
Geology
Mathematics
Physics

Each of the three Arts and Sciences areas—humanities, social sciences, and natural sciences and math—offers students opportunities for developing strong critical thinking and communication skills, qualities valued by all prospective employers. These qualities provide the individual with the flexibility and adaptability needed for new and changing professional responsibilities. These skills are important, too, when a departmental major leads to further study in a research, education or law school program.

It often happens that preparation in one area in the College of Arts and Sciences may provide a good background for a career on what appears to be a different path. While the characteristics of each arts and sciences area cross over into the other two areas, students might discover that their interests match best with one of the following broadly described areas:

Humanities. Students and professionals in the humanities study the scope and aspirations of human experience, often as these find expression through the literatures, languages, religions and cultures of diverse peoples or are given expression in their histories. Specialists in this area examine the experience of peoples in their time and probe questions of aesthetics, the use and misuse of language, ethics, values, cultural myths and more. Majors in one of the humanities disciplines may be found pursuing a wide range of

careers, including professional and creative writing, library and museum services, interpreting and tourism, government service, international relations, banking and business.

Social Sciences. The social sciences are for those interested in the ideas and behaviors of both individuals and societies, as well as their institutions, such as families, communities and governments. Social scientists examine people in their environments and pay particular attention to how cultural and social factors affect individual and group behavior. How people interact with each other and with their environments is of particular interest. Students interested in becoming city planners, administrators, counselors, paralegals, police officers, politicians, or entering other human service professions will find themselves well prepared with a major in one of the social sciences.

Natural Sciences and Math. Natural scientists and mathematicians pursue inquiry aimed at further understanding of our natural world and the mechanisms, processes and systems that lie behind how things work. Through experimentation, observation and interpretation, these professionals may predict outcomes and develop applications useful for addressing significant problems. Career paths for majors in the natural sciences and math include medical sciences, pharmaceutical cosmetics, chemical industries, wildlife conservation, government agencies, computer programming, nanotechnology, cryptography and engineering.

Declaring a premajor in the humanities, social sciences or natural sciences and math links students to a web of advising services that helps them discover more about the focus of arts and sciences disciplines; make connections to departments; find a more direct path to successful completion of a bachelor's degree; and develop the skills and knowledge that meet their individual and professional goals. Services for premajors include focused advising during the PASS program, specialized University Orientation classes and departmental activities, all aimed at helping students find their interests and enroll in courses that will lead to successful completion of a degree that meets their career goals.

Students may elect a College of Arts and Sciences premajor in one of several ways: on the Kent State application form, while attending the PASS program or by meeting with an adviser in the College of Arts and Sciences office, 105 Bowman Hall. Advisers in the college office may be seen on a walk-in basis, Monday through Friday, 8:30 a.m. to 4:30 p.m.

Student Success

The *Undergraduate Catalog* is the authoritative advising document for academic programs at Kent State University. In addition to being familiar with this chapter that focuses on arts and sciences programs, students in the College of Arts and Sciences are expected to familiarize

themselves with the general university regulations and procedures described in the preceding chapter titled General Information. Further general information about all programs offered through the College of Arts and Sciences is available in the college office (105 Bowman Hall). Students who do not complete their requirements in a timely fashion may find their graduation delayed. For these reasons, students are urged to check their progress regularly with their major faculty advisers and with the college office. The initiative for checking requirements and the responsibility for meeting them rests with the students.

Advising for Transfer Students

Students transferring into the college from another university should consult with the college office for information on the applicability of their transfer coursework to the general requirements of the college and the program requirements of their major and minor programs of study.

Advising for General Requirements

Each of the undergraduate degree programs in the College of Arts and Sciences requires the completion of both general and program-specific requirements. Students with questions regarding the general requirements of the College of Arts and Sciences should visit the college office in 105 Bowman Hall to meet with an adviser.

Advising for Majors

General information about programs and college degree requirements is available to all students in the college office, along with help in planning class schedules, advising for students on probation, and help in developing appropriate study skills and habits. Students may also seek advice from the advising coordinators in the various departments and from the coordinators in the interdisciplinary programs. These coordinators can provide information about requirements, programs and other matters pertaining to the academic departments.

Students who have chosen a major in the College of Arts and Sciences must visit the college office to formally declare that major. All students in the College of Arts and Sciences are expected to formally declare a major no later than the beginning of their junior year (60 semester hours). Students are encouraged to declare a major as early as possible. After this formal declaration, students are assigned faculty advisers by their major departments. In addition to their assigned faculty advisers, students may also seek academic advice from departmental chairpersons, departmental advising coordinators and the coordinators of the various interdisciplinary programs.

Students who select the individualized major within the B.A. or the B.G.S. are advised exclusively in the college office. Both of these programs require that students design their own courses of study; students who wish to pursue these programs must work closely with the college office in preparing to apply for admission to the programs.

Major advisers are members of the faculty. They can provide a wide range of information and help for undergraduate students. Students are urged to see their faculty advisers regularly, not only for schedule planning but also for advice about the discipline in general and for help in preparing for graduate study and eventual career advice. Students should contact their faculty advisers at least once each semester to ensure that they are making adequate progress, to learn about changes in programs and to discuss their ongoing education with an interested and knowledgeable person in the field.

Advising for Minors

Although minors are not required in the College of Arts and Sciences, undergraduate students may include one or more minors in their academic program. All of the minor programs available to arts and sciences students are listed beginning on Page 149. Some of these programs also award certificates of completion. Information about these programs is available from the college office. Minors as well as majors must be formally declared in the college office.

Students who elect an interdisciplinary minor should seek advice from the coordinator of that interdisciplinary program. Students who choose a departmental minor should seek advice from the advising coordinator of that department. Students pursuing a degree in arts and sciences who choose a minor in another college of the university (see the section "Minors in Other Colleges") should first visit the office of the College of Arts and Sciences for information; they will then be referred to the appropriate college for further advice. In any case, students who elect minors should consult with their major advisers to select courses that will best complement their major programs.

GENERAL INFORMATION

Lower-Division/Upper-Division Coursework

Students are required to take a certain number of courses in specific categories to meet University and College General Requirements. These requirements vary according to the degree sought; they are described in the section below titled "Degree Program Requirements." During the freshman and sophomore years, most of the courses students take will be at the lower-division level. Lower-division courses are numbered 10000-29999 and generally presume that the students have little or no specific background in the discipline. The principle purpose of the lower-division coursework is to lay the foundation of the students' general education and to introduce students to the field of specialization. Transfer students admitted to the college with 64 or more semester hours of credit should complete all remaining freshman and sophomore requirements within one academic year following their first registration.

Most undergraduate specialization is pursued through upper-division coursework. Upper-division courses are numbered 30000-49999. These courses require both greater familiarity with the subject matter and greater intellectual sophistication. Students are required to have

completed the appropriate prerequisites in specified lower-division courses before entering upper-division courses. All degree programs in the College of Arts and Sciences require the successful completion of at least 42 upper-division hours of coursework.

Double Majors/Dual Degrees

A program that combines two major fields of study in the same degree program is referred to as a double major program. An example of a double major program would be the combination of the English and history majors in the B.A. program in arts and sciences. Completion of a double major requires that students complete a minimum of 121 hours.

A program combining two majors in distinct degree programs is referred to as a dual degree program. An example of a dual degree program would be the combination of a philosophy major in the B.A. program with a chemistry major in the B.S. program in arts and sciences. Any combination involving degree programs in more than one college is considered to be a dual degree program even if both degrees bear the same title. For example, the combination of an English major in the B.A. program in arts and sciences with an art history major in the B.A. program in fine and professional arts is considered a dual degree program. Completion of a dual degree program requires that students complete a minimum of 140 total hours.

The College of Arts and Sciences generally will approve double majors and dual degrees within the college as long as there are at least 21 hours of coursework exclusively applied to each major or field of concentration. Certain major and degree combinations are specifically prohibited based upon departmental recommendations.

The option to pursue double majors and dual degrees continues subsequent to earning a B.A. or B.S. degree in the College of Arts and Sciences. For example, students who have earned a B.A. degree with an English major at Kent State University can have the completion of a second major such as sociology added to their transcript at a later time.

Requests for dual degrees between arts and sciences programs and programs in other colleges are considered on a case-by-case basis by the college office in consultation with the departmental units involved. Combinations involving programs in arts and sciences with related programs in the College of Education are generally restricted.

Elective Credits

For most programs in the College of Arts and Sciences, general requirements plus field of specialization requirements will not exhaust the 121 hours required for graduation. The remaining hours are elective credits and may be chosen at will, including courses in

other colleges of the university, provided students possess the necessary prerequisites for the courses selected. Students may, of course, elect to take more than the minimum 121 hours required.

Electives should be carefully chosen to satisfy the students' intellectual interests or to complement and enhance the field or fields of specialization. Students are urged to seek faculty advice in selecting elective courses.

IP Grades

The grade of IP ("In Progress") indicates that work for the course will be completed after the end of the term and that the final grade will be entered when the work is completed. This grade may be awarded only in specified courses (such as continuing research, honors, or individual investigation projects or field placement/internships that do not correspond to the university calendar), which by their nature are such that students may not be expected to complete course requirements within the term of registration. The grade of IP is given at the discretion of the instructor; students desiring an IP grade should make arrangements with the instructor before the end of the term.

Study Abroad

Study in a foreign country can provide a breadth of experience and understanding that reflects the most central purpose of a liberal arts education. For this reason, the college encourages qualified students to incorporate foreign study in their undergraduate programs. Such study may be pursued through the university's own semester programs in England, Italy and Switzerland. Additionally, there are exchange programs available in France, Israel, Japan, Northern Ireland, Nova Scotia, Spain and Russia. Students may also study through similar programs offered by other institutions. Information about study abroad may be obtained from the Center for International and Comparative Programs, 124 Bowman Hall.

Students may also study in Washington, D.C., through the Department of Political Science's Washington Program. Field study at locations outside the university is also available through several other departments. Information about such programs is available in the offices of the departments concerned.

Prerequisites

In areas where learning is sequential, courses often have required prerequisites. These prerequisites exist to protect students from attempting coursework for which they are not properly prepared. It is the responsibility of the individual students to make certain that they have met all prerequisites before entering any course. Students who enroll in courses without the specified prerequisites are subject to being deregistered.

On occasion, exceptionally well-prepared students may be given special permission to take a course without having met the prerequisites. In such a case, the students should be prepared to face possible difficulties in the course.

Sequential Coursework

In certain subject fields, such as mathematical sciences, foreign languages, English composition and some of the basic natural sciences, knowledge is sequential or cumulative at the lower levels of study, and courses are structured in clear sequences. Students who already have received credit for, or established proficiency at, one level in such a sequence of courses may not receive academic credit counting toward graduation for a prior course in the sequence or for a course in a lower sequence.

ENGLISH COMPOSITION, MATHEMATICS AND LOGIC, FOREIGN LANGUAGE *

The following sections contain specific information concerning the English composition, mathematics and logic, and foreign language requirements in the College of Arts and Sciences. Students who are uncertain as to the applicability of sequential coursework in these or other areas should consult the office of the College of Arts and Sciences, 105 Bowman Hall.

English Composition

All programs in the College of Arts and Sciences require the successful completion of the basic College English sequence. The College English sequence consists of ENG 10000, Introduction to College English; followed by ENG 10001, College English I; and ENG 10002, College English II. The initial placement in the College English sequence is determined by proficiency as established by ACT English or SAT verbal scores. Students must begin the sequence with the course into which they are placed. Students may not receive credit for a course prior in the sequence to the one into which they are placed, nor may students receive credit for a course prior in the sequence to one that already has been completed satisfactorily.

Alternative Means of Fulfillment

Students admitted into the Honors College are required to take the 8-hour Freshman Honors Colloquium, regardless of ACT/SAT placement scores. Satisfactory completion of this 8-hour sequence also constitutes fulfillment of the College English requirement.

Students may earn College English credit through the subject examination in English Composition of the College Level Examination Program (CLEP); students who earn credit equivalent to ENG 10001 through this program are then placed into ENG 10002. Credit may also be earned through the university's Credit-By-Examination (CBE) program, described elsewhere in this *Catalog*.

*Throughout this *Catalog*, the term *foreign language* includes American Sign Language.

International Students

Students whose native language is other than English are required to complete the special sequence ENG 10100, Introduction to College English for Foreign Students; ENG 10101, College English I for Foreign Students; and ENG 10002, College English II (the concluding course in the basic College English sequence).

Entering international students must register for ENG 10100. During the first week of the semester, the Michigan Test of English Language Proficiency will be administered and the results compared to the students' scores on the Test of English as a Foreign Language (TOEFL). Based on these scores, the students will either remain in ENG 10100 or be immediately advanced to ENG 10101.

Students who are placed into ENG 10100 must receive passing grades both in the course and on a final test of language competency before being eligible to enroll in ENG 10101. Upon satisfactory completion of ENG 10101, the students will proceed to ENG 10002 in order to complete the College English requirement.

Progress Toward Fulfillment

Because College English involves basic skills that are essential to academic progress and academic success, students must begin their College English coursework in the first semester of full-time enrollment and continue taking College English until the full requirement is completed. Entering transfer students with junior standing must undertake outstanding portions of the requirement within two semesters.

Mathematics and Logic

Students pursuing the B.A. or B.S. in the College of Arts and Sciences must satisfactorily complete a minimum of 3 hours in mathematics or logic. Entering freshmen are placed in mathematics coursework based on a mathematics placement test, their ACT math scores and their mathematics coursework in high school. The courses that may be taken to fulfill this requirement are listed under the individual degree requirements. In addition, many programs require that students complete a sequence of courses in mathematics. Because the various introductory mathematics sequences overlap somewhat in content, and because specific programs require specific sequences, students should carefully examine their program requirements before enrolling in mathematics. Arts and sciences students are referred to the college general requirements for restrictions on the applicability of MATH 14001 and 14002 toward LER credit.

Students with previous credit in mathematics earned at another institution, through CLEP, or through the Advanced Placement Program, may enter the next higher mathematics course in the sequence required in their majors.

In some cases, students may be given a mathematics placement examination on entering the university. Students may not receive credit for a prior course in any mathematics sequence to one which has already been completed satisfactorily.

Further information about appropriate entry courses may be obtained from the Department of Mathematics in Room 233 in the Mathematical Sciences Building, (330) 672-2430.

Foreign Language

The College of Arts and Sciences' foreign language requirement is stated in terms of *proficiency*. Students seeking the B.A. degree must demonstrate proficiency equivalent to Intermediate II (up to 14 hours of coursework) in one foreign language; students seeking the B.S. degree must demonstrate proficiency equivalent to Elementary II (up to 8 hours of coursework) in one foreign language. Successful completion of a course at a higher level than the minimum required will also satisfy the requirement.

In general, students may elect any foreign language taught through the Department of Modern and Classical Language Studies or the Department of Pan-African Studies. However, certain majors, fields of concentration and minors require specific languages or limit the languages from which students may choose. In addition, students who plan to pursue graduate study may need particular languages for that study. In such cases, the students should seek the advice of the appropriate department before selecting a language.

Placement and Credit

Students arrive at Kent State with varying types of foreign language experience: Some come from other countries and are fluent in their native language, others have grown up in America with a first language other than English, but most have learned a second language in a formal classroom setting.* All students should begin foreign language study at the appropriate level in their first semester and continue with the appropriate sequence of courses in consecutive semesters and/or summer sessions. Those who qualify to begin at an advanced level can complete the requirement in less time and apply the remaining hours to their major, a minor or one or more electives.

*For definition of the terms "native language" and "first language," above, see Page 30, under Foreign Languages.

Students may qualify for advanced placement with or without college credit in any of the following ways: CLEP examination, Credit-By-Examination, proficiency examination or a placement test. The CLEP and the university's Credit-By-Examination program, available in certain languages, do award credit that will count toward fulfillment of the language requirement and as hours toward graduation.

Proficiency tests administered by the Center for International and Comparative Programs provide no credit and are part of the requirements for the international relations major.

Placement tests are regularly available in French, German, Russian and Spanish. Administered by Academic Testing Services, these tests do not award credit but merely establish the level at which a student should begin study. By achieving an appropriate score, however, a student may fulfill the university LER's, Category II and degree program requirements.

For students who do not receive placement or credit through testing, proficiency level and placement can be established through appropriate documentation of school coursework in that language or in the home/ foreign country. As a general rule, a year of high school study is roughly equivalent to a semester of college-level study of a foreign language. Whether through tests or other documentation, placement does *not* award academic credit; the credit hours which have been exempted by such placement are still required for graduation and may be applied to coursework in the student's major, minor or elective courses.

Additional information regarding foreign language placement and study can be obtained from the department offering that language.

*Students With a Native or First Language Other Than English**

A student with a native language other than English may fulfill the language requirement by demonstrating the appropriate level of proficiency on a proficiency test in his or her own language; in the case of languages for which no examiner or examination is available, proficiency can be established through documentation of previous school work in the native land and language. The student must still meet the College English requirement.

A student with a native language other than English may not register for, or receive credit in, coursework on the elementary or intermediate level in that language or a closely related one as determined by the chairperson of the appropriate department.

*For definition of the terms "native language" and "first language," above, see Page 30, under Foreign Languages.

Students with a first (not native) language other than English may be permitted to enroll in, and receive credit for, coursework on the elementary and/or intermediate level. Permission will be granted on a case-by-case basis by the chairperson of the appropriate department after evaluation of the student's skills in that language.

Progress Toward Fulfillment

Arts and sciences students are required to begin meeting the foreign language requirement by their third semester of full-time enrollment (that is, no later than upon completing 30 semester hours) and are required to continue to enroll for foreign language courses until the requirement has been completed. Students who transfer to the College of Arts and Sciences from other universities or from other programs at Kent State University with sophomore status are required to begin meeting the foreign language requirement by their second semester of full-time enrollment in the college and must continue to enroll for foreign language courses until the requirement has been completed. Students who fail to meet these stipulations risk unnecessary delays in the completion of their degree programs. The stipulation that arts and sciences students begin meeting the foreign language requirement by their third semester of full-time study applies not only to students with declared majors but also to undeclared students. This includes those students seeking admission to selective programs in other colleges who do not achieve admission to the selective program at the time they achieve sophomore status.

LIMITATIONS ON APPLICABILITY OF CREDIT

The following policies impose restrictions on the applicability of credit earned in certain categories of coursework toward meeting graduation requirements for arts and sciences students. Hours restricted under these policies will not be counted toward the 121 total hour or 42 upper-division hour graduation requirements.

Foreign Language Study

Students with a native language* other than English may not register for, or receive credit in, coursework on the elementary or intermediate level in that language or in a closely related language as determined by the chairperson of the appropriate department. Students with a first (not native) language* other than English may be permitted to enroll in, and receive credit for, coursework on the elementary and/or intermediate level. Permission will be granted on a case-by-case basis by the chairperson of the appropriate department after evaluation of the student's skills in that language.

*For definition of the terms "native language" and "first language," above, see Page 30, under Foreign Languages.

Pass-Fail Option

A maximum of 12 hours of pass-fail credit (Y and Z grades) may be attempted. Courses graded S/U are not counted in this 12-hour maximum. All courses listed under the university's LERs or College General Requirements are excluded from the pass-fail option. Courses in the major, field of concentration and minor are also excluded. Only free electives—courses not used to satisfy any specific requirement—may be taken on a pass-fail basis. See the Pass-Fail Policy on Page 70 of this *Catalog*.

Variable Title Courses

Students may earn credit toward graduation through special topics courses, Honors colloquia, seminars and other variable title courses. Such coursework may not be applied toward the general requirements of the college's degree programs. Variable title coursework may not be counted toward major, field of concentration or minor program requirements unless specifically and formally allowed by the academic unit responsible for the program.

Physical Education and ROTC

No more than four hours of physical education activity (PEB) courses, lower-division ROTC (ASTU and MSCJ) coursework or of the two combined may be counted toward the 121 hours required for graduation. A maximum of 12 upper-division hours in ROTC (ASTU and MSCJ) may be counted toward the 121 hours required for graduation by students actively pursuing the university's Army and Air Force ROTC programs. These 12 upper-division hours may be counted in addition to the four lower-division hours permitted for ROTC/PEB courses.

Applied Music and Music Ensembles

A maximum of 8 hours of credit for courses in Applied Music and Music Ensembles (MUS courses with a second digit of 5, 6 or 7) combined may be counted toward the 121 total hour or 42 upper-division hour graduation requirement. There is no limit on other music coursework.

Nontraditional Coursework

A maximum of 16 total hours of coursework from the following categories may be applied toward the 121 total hour and 42 upper-division-hour graduation requirements. Moreover, no more than 8 hours of workshop credit may be applied toward this 16-hour limit. Hours earned in HONR 40099, Senior Honors Thesis/Project, are not included within this 16-hour limit.

• Internships, Field Placements, Practica

Credit earned in internships, field placements, practica or courses with a similar experiential/applied nature is included within this 16-hour limitation. Such coursework may not be applied toward the General Requirements of the college's degree programs. The year of clinical training required in the medical technology program,

similar training in other Three-Plus-One programs, student teaching and other experiential components of the education minor, and study-abroad programs are exempted from this limitation.

• *Individual Study*

Credit earned in individual study and research coursework is included within this 16-hour limitation. Individual study and research credits may not be applied to major, field of concentration or minor program requirements unless specifically and formally allowed by the department responsible for the major, field of concentration or minor.

• *Workshops*

Credit earned in workshop courses (course numbers ending in XXX93) is limited to no more than 8 hours and is included within this 16-hour limitation. Workshop credit may not be applied to major, field of concentration or minor program requirements unless specifically and formally allowed by the academic unit responsible for the program.

GENERAL GRADUATION REQUIREMENTS

1. **Total Hour Requirement**
A minimum of 121 hours of applicable coursework must be successfully completed to qualify for graduation. Credit earned in certain developmental coursework (MATH 10004, US 10003 and US 10006) and hours in excess of the restrictions listed above under "Limitations on Applicability of Credit" do not count toward the 121 required hours. Depending upon the students' major and high school preparation, students may need to complete additional hours of prerequisite coursework. There are a limited number of major programs in the College of Arts and Sciences that require more than 121 hours for completion. Further information on these majors can be obtained in the college office.
2. **Upper-Division Hour Requirement**
The College requires a minimum of 42 hours of upper-division coursework (coursework at the 30000 and 40000 level). Transfer coursework is considered upper-division only if the coursework was taken as upper-division at the transfer institution. Community college coursework is classified as lower-division.
3. **College General Requirements**
The General Requirements of the college include the university Liberal Education and Diversity Requirements as well as any conditional coursework prescribed upon admission, University Orientation, and additional coursework in mathematics/logic, foreign language, social sciences and basic sciences. Detailed discussions of the General Requirements for each of the degree programs offered in the college are listed below in the section "Degree Program Requirements."
4. **Major/Minor Requirements**
The particular requirements of all of the major and minor programs offered in the College of Arts and Sciences are described in detail in the sections "Degree Program Requirements" and "Minor Program Requirements." Requirements for minors offered by the other colleges are described in the appropriate college's section of the *Catalog*.
5. **Writing-Intensive Requirement**
Refer to Pages 64 and 84-85 of this *Catalog* for specific information on the Writing-Intensive Course Requirement.
6. **Grade Point Average Requirements**
Students must achieve a cumulative GPA of at least 2.00 in all coursework taken at Kent State University including Regional Campus coursework. Students must also achieve a 2.00 cumulative average in the fields of specialization, including majors, fields of concentration and minors. Some minors offered by other colleges may stipulate a higher cumulative average requirement.

Students may need to take additional coursework beyond the specified requirements in the major or field of specialization in order to raise the cumulative average in the major or field of concentration to 2.00. In such a case, the course(s) to be used for this purpose must be selected in consultation with the faculty adviser and approved by the dean prior to registration for the course(s). It is generally required that such additional coursework be taken at the upper-division level.
7. **Residence Requirement**
The university's residence requirement may be met by completing the first 91 semester credit hours or the final 30 semester credit hours at Kent State University. Summer and junior-year study abroad may be taken as part of the 91 credit hours. Students must complete at least three upper-division courses in the major at Kent State on a graded basis (A-F). If a minor is elected, at least two upper-division courses in the minor must be completed at the university on a graded basis.
8. **Mandatory Outcomes Assessment**
In addition to the other General Requirements of the college, candidates for an undergraduate degree in the College of Arts and Sciences are required, as a condition of graduation, to participate in an outcomes assessment. These outcomes assessments are conducted by each undergraduate degree program in the College of Arts and Sciences.

DEGREE PROGRAM REQUIREMENTS

BACHELOR OF ARTS

General Requirements

The university's Liberal Education and Diversity Requirements (see Pages 77-83) are included in the College of Arts and Sciences' General Requirements. Students should consult the college office if they have questions concerning the applicability of specific coursework to the General Requirements. None of the courses listed as part of the college's General Requirements may be taken pass-fail.

For the purposes of the General Requirements, students' major departments are defined as the departments that house the major, field of concentration or interdisciplinary program. For students in double major and dual degree programs, the restrictions on the applicability of major coursework toward the General Requirements are applied to only one of their majors (generally the primary major).

The following General Requirements apply to all B.A. degree programs in the College of Arts and Sciences.

- I. **Composition** 6
 - ENG 10001 College English I (3)
 - 10002 College English II (3)
 - Placement by ACT/SAT English composition scores; students may be required to take ENG 10000.*
- II. **Mathematics, Logic and Foreign Languages**
 - One foreign language or American Sign Language or equivalent in proficiency** 14
 - The requirement may be fulfilled by:*
 - A. *Passing the first four semesters of any foreign language or American Sign Language (students who receive advanced placement will meet the requirement by passing the fourth semester of a language).*
 - B. *Placement in courses beyond intermediate II level on the placement examination administered by Academic Testing Services. Consult with the language departments for further information.*
 - C. *Passing a course beyond intermediate II level.*
 - D. *Receiving credit for intermediate II or beyond from CBE, CLEP or transfer.*
 - Note: The requirement may be met with fewer than 14 hours if students receive advanced placement. In this case, students are required to complete the remaining hours with "free" electives.*
 - Mathematics or Logic** 3-5
 - A student must pass one of the courses listed below or establish proficiency.*
 - MATH 10041, Elementary Probability and Statistics (3)
 - 11008, Explorations in Modern Mathematics (3)
 - 11011, College Algebra (4)
 - 11012, Intuitive Calculus (3)
 - 12001, Algebra and Trigonometry (4)

- 12002, Analytic Geometry and Calculus I (5)
- PHIL 11009, Principles of Thinking (3)
- 21002, Intro. to Formal Logic (3)
- 31045, Formal Logic (3)

Restrictions:

Since MATH 12001 covers the same content as 11011 plus 11022, credit is not allowed for both 12001 and 11011 or for both 12001 and 11022.
Note: MATH 14001 and 14002 may be used to meet the requirement provided both courses were completed while the student was enrolled in another college.

III. **Humanities and Fine Arts** 9

Required:

All 9 required hours in the Humanities and Fine Arts must be selected from the courses listed below. At least one course must be selected from Humanities: Arts and Sciences. At least one course must be selected from Fine Arts: Fine and Professional Arts.

Restrictions:

No coursework from the major department may be counted toward the Humanities and Fine Arts.
Note: Any course marked with a "D" that is taken to satisfy the Humanities and Fine Arts will also satisfy a Diversity Requirement provided that course is not in the major department. Diversity courses marked additionally with an asterisk () have a domestic perspective.*

Humanities: Arts and Sciences

- CLAS D21404, The Greek Achievement (3)
- D21405, The Roman Achievement (3)
- ENG 21054, Intro. to Shakespeare (3)
- 22071, Great Books I (3)
- 22072, Great Books II (3)
- 22073, Major Modern Writers (3)
- HIST D11050, History of Civilization I (3)
- D11051, History of Civilization II (3)
- D*12070, History of the U.S.: The Formative Period (3)
- D*12071, History of the U.S.: The Modern Period (3)
- PAS D23001, Black Experience I: Beginnings to 1865 (3)
- D*23002, Black Experience II: 1865 to Present (3)
- PHIL D11001, Intro. to Philosophy (3)
- D21001, Intro. to Ethics (3)
- D21020, Comp. Religious Thought I (3)
- D21021, Comp. Religious Thought II (3)

Humanities: Fine and Professional Arts

- COMM 15000, Theory and Practice of Oral Discourse (3)
- D*26000, Criticism of Public Discourse (3)
- JMC D*20001, Media, Power and Culture (3)

Fine Arts: Fine and Professional Arts

- ARCH 10001, Understanding Architecture (3)
- 10011, Survey of Architectural History I (3)
- 10012, Survey of Architectural History II (3)

- ART 12001, Art Survey (3)
- 22006, Art History I: Ancient and Medieval Art (3)
- 22007, Art History II: Renaissance to Modern Art (3)
- D22020, Art of Africa, Oceania, and the Americas (3)
- DAN D27076, Dance as an Art Form (3)
- MUS 22111, The Understanding of Music (3)
- D22121, Music as a World Phenomenon (3)
- THEA D11000, The Art of the Theatre (3)

IV. Social Sciences12

Required:

Coursework must be selected from at least two curricular areas (e.g., ANTH, ECON, etc.). Twelve hours are required in the Social Sciences. At least 9 hours must be selected from the courses listed below. The remaining 3 hours may optionally be selected from courses in JUS, ECON, GEOG, POL, PSYC, SOC and (cultural) ANTH or from selected courses in CACM and PAS.

Restrictions:

No coursework from the major department may be counted toward the 9 hours that must be selected from the courses listed below.

Note: Any course marked with a "D" that is taken to satisfy the Social Sciences will also satisfy a Diversity Requirement provided that course is not in the student's major department. Diversity courses marked additionally with an asterisk (*) have a domestic perspective.

- ANTH D18210, Intro. to Cultural Anthropology (3)
- 18420, Prehistoric Archaeology (3)
- ECON 22060, Principles of Microeconomics (3)
- 22061, Principles of Macroeconomics (3)
- GEOG 10160, Intro. to Geography (3)
- D17063, World Geography (3)
- 17064, Geography of U.S. and Canada (3)
- JUS 26704, Law and Society (3)
- POL D10004, Comparative Politics (3)
- D*10100, American Politics (3)
- D*10301, Diversity in American Public Policy (3)
- D10500, World Politics (3)
- PSYC 11762, General Psychology (3)
- 20651, Child Psychology (3)
- 21211, Psychology of Adjustment (3)
- D*22221, Multicultural Psychology (3)
- SOC D*12050, Intro. to Sociology (3)
- D22778, Social Problems (3)

V. Basic Sciences9

Required:

Nine hours are required in the Basic Sciences. At least 6 hours must be selected from the courses listed below or from beginning "major sequence" courses in (biological) ANTH (ANTH 38630), BSCI (BSCI 10110, 10120), CHEM (CHEM 10060, 10061, 10062, 10063, 10960, 10961) and PHY (PHY 23101,

23102). The remaining 3 hours may optionally be selected from other courses in BSCI, CHEM, GEOL and PHY.

Restrictions:

No more than two courses from any curricular area (not counting laboratories) may be counted toward the Basic Sciences.

No coursework from the major department may be counted toward the 6 hours that must be selected from the courses listed below.

Credit toward the Basic Sciences is not allowed for:

- both the PSCI 11660 series and either the CHEM 10050 series, the CHEM 10060 series or the PHY 13001 series.
- both the CHEM 10050 series and the CHEM 10060 series.
- more than one of the PHY 13001, PHY 13011 or PHY 23101 series.
- combinations of BSCI 10001, the BSCI 10110 series and/or the BSCI 20020 series.

- ANTH 18630, Human Evolution (3)
- BSCI 10001, Human Biology (3)
- 10002, Ecology, Evolution and Society (3)
- 20020, Biological Structure and Function (5)
- CHEM 10030, Chemistry in Our World (3)
- 10050, Fundamentals of Chemistry (3)
- 10052, Intro. to Organic Chemistry (2)
- 10053, Organic and Inorganic Lab (1)
- 10054, General and Elementary Organic Chemistry (5)
- CS 10051, Introduction to Computer Science (4)
- GEOL 11040, Earth Dynamics (3)
- 11041, Earth Dynamics Lab (1)
- 11042, Earth History (3)
- 11043, Earth History Lab (1)
- 21062, Environmental Geology (3)
- 21080, Oceanography (3)
- PHY 11030, Seven Ideas that Shook the Universe (3)
- 13001, General College Physics I (5)
- 13002, General College Physics II (5)
- 13011, College Physics I (3)
- 13012, College Physics II (3)
- 21430, Frontiers in Astronomy (3)
- PSCI 11660, Physical Science (3)
- 11661, Physical Science (3)

VI. Diversity0-3

Required: two courses

The selection of these two courses is subject to the following constraints.

- 1.) One course must be selected from the courses marked with a "D" in section III or IV above. This course may not be from the major department.
- 2.) The second course may be selected from either the courses marked with a "D" in section III or IV above or from the full list of diversity courses on Pages 81-83. This course may be from the

major department, but if so it might not apply toward the Humanities, Fine Arts or Social Sciences.
 3.) One of the above two courses must address domestic (U.S.) issues. These courses are marked with an asterisk (*). The other course must address global issues. These courses are not marked with an asterisk (*).

VII. US 10001, University Orientation 1

MAJORS*

The program requirements for majors in the College of Arts and Sciences are listed below. For more information consult the college Web site <http://as.kent.edu>.

*See Page 102 for lists of departmental and interdisciplinary majors.

American Sign Language*

*Pending Ohio Board of Regents Approval.

Students interested in teacher licensure must contact the departmental pedagogy coordinator for advising to complete the required education minor listed under Minors in Other Colleges.

ASL	19201, Elementary American Sign Language I	4
	19202, Elementary American Sign Language II	4
	29201, Intermediate American Sign Language I	3
	29202, Intermediate American Sign Language II	3
	39201, Advanced American Sign Language I	3
	39202, Advanced American Sign Language II	3
	49092, Practicum: Deaf Residential School	1
	49096, Individual Investigation: Curriculum and Practices	3
	49096, Individual Investigation: Advanced ASL Proficiency	3
	49101, Deaf Culture and Community	3
	49105, Signed English and Manually Coded English Systems	3
	49108, ASL Linguistics and Usage	3
	49309, Introduction to Deaf Studies	3
ECED	30123, Language and Literacy	3
SPED	43310, Language Instruction for the Deaf/Hard of Hearing	3
	43392, Practicum: Deaf Education	1
SP&A	43600, Fundamentals of /Educational Audiology	3
TOTAL		49

Students pursuing teacher licensure must satisfactorily pass the Sign Communication Proficiency Interview before taking Student Teaching.

LER recommendations: HIST 11050 or 11051 (satisfies the global Diversity Requirement), SOC 12050 (satisfies the domestic Diversity Requirement), and PSYC 11762.

Any portion of the 14 hour basic course sequence may be waived by demonstrated proficiency; however, under no circumstances may the coursework taken toward the major drop below 30 credit hours.

American Studies

(Department of History, 305 G Bowman Hall)

Drawing on coursework in history, literature, the arts and the social sciences, the American studies major offers a broad perspective for students seeking to understand American culture. This program takes an interdisciplinary approach to American life and thought while permitting considerable emphasis on a particular field of analysis chosen by the student.

A graduate with an American studies major and a minor in education may be licensed to teach in the Ohio Public School System. Students with degrees in American studies may pursue graduate work in American studies or a related field. In the latter instance, students would be well advised to pursue a second major in the related field.

AMST	10001, Introduction to American Studies	3
	40197, Senior Colloquium	3
	Choose from History:	9
HIST	31070, History of American Business Enterprise (3)	
	31078, African American History (3)	
	41056, History of Colonial America: 1492-1714 (3)	
	41057, Eighteenth-Century America: 1714-1789 (3)	
	41069, Recent America: The United States, 1929-Present (3)	
	41070, American Social and Intellectual History, 1790-1876 (3)	
	41071, American Social and Intellectual History, 1876-Present (3)	
	41074, American Economic History (3)	
	41079, History of the Immigrant in America (3)	
	41083, U.S. Foreign Relations Through World War I (3)	
	41084, U.S. Foreign Relations From 1920 (3)	
	Choose from English:	9
ENG	33001, U.S. Literature to 1865 (3)	
	33002, U.S. Literature from 1865 to 1945 (3)	
	33003, U.S. Literature from 1945 to Present (3)	
	33011, African American Literature (3)	

	34021, Women's Literature (3)	
	36001, Literary Criticism (3)	
	39695, Special Topics in Ethnic Literature of the U.S. (3)	
	Choose from Social Sciences:	12
ANTH	18210, Introduction to Cultural Anthropology (3)	
	48270, Native Peoples of North America (3)	
ECON	32083, The Economics of Poverty (3)	
GEOG	17064, Geography of the United States and Canada (3)	
	42064, Historical Geography of the United States and Canada (3)	
POL	40112, Politics and the Mass Media (3)	
	40116, Public Opinion and Political Behavior (3)	
	40830, U.S. Foreign Policy (3)	
	Choose from Humanities:	12-15
ART	42056, American Art: 1607-1860 (3)	
	42057, American Art and Architecture: 1860-1940 (3)	
	42058, American Film, Photography, Art and Ideas (3)	
A&S	30000, Colloquium in Women's Studies (3)	
JMC	40008, History of American Mass Communication (3)	
MUS	42131, America's Music (3)	
	42161, History of Jazz (3)	
PAS	33110, The Black Woman: Historical Perspectives (3)	
	35100, African American Social, Political, and Economic Systems (3)	
	35200, African Social, Political, and Economic Systems (3)	
	41192, African-American Affairs Practicum (3)	
	42500, Black Education in America (3)	
	49095, Selected Topics (3)	
PHIL	31010, Twentieth-Century Philosophy (3)	
	31020, American Philosophy (3)	
	41060, Pragmatism and Beyond (3)	
	Major Electives	6-9
<i>6-9 upper-division hours in American studies (40095, 40096), anthropology, English, history, political science and sociology selected in consultation with the coordinator, with two areas represented. At least 21 hours must be taken in the Humanities and major electives combined.</i>		
	TOTAL	57

Anthropology

(see also B.S. program)

ANTH	18210, Intro. to Cultural Anthropology	3
	18420, Prehistoric Archaeology	3
	38630, Principles of Biological Anthropology	3
	plus 9 additional ANTH hours	9
	plus 3 additional upper-division elective hours	3

	Choose one from:	3
ANTH	38050, Theory in Cultural Anthropology (3)	
	48212, Kinship and Social Organization (3)	
	Choose one from:	3
ANTH	38430, Lithics (3)	
	38480, Archaeological Analysis (3)	
	48410, Stone Age Archaeology (3)	
	48420, Archaeology of North America (3)	
	48440, Prehistory: Ohio (3)	
	Choose one from:	3
ANTH	38680, Primate Societies (3)	
	48810, Human Paleontology (3)	
	48820, Human Musculoskeletal System (3)	
	48830, Human Behavioral Ecology and Evolution (3)	
	48840, Natural Selection in Perspective (3)	
	Choose one from:	3
ANTH	38240, Culture and Personality (3)	
	48214, Politics of Culture (3)	
	48250, Culture and Curing (3)	
	48260, Culture Conflict (3)	
	48270, Native Peoples of North America (3)	
	48630, Pacific Island Cultures (3)	
	TOTAL	33

Applied Conflict Management

(Center for Applied Conflict Management, Department of Political Science, 302 Bowman Hall)

The major in applied conflict management is offered through the Center for Applied Conflict Management in cooperation with the College of Arts and Sciences. Upon satisfying the college's General Requirements and the major requirements, students receive the Bachelor of Arts degree from the College of Arts and Sciences.

The Center for Applied Conflict Management offers an undergraduate major that prepares students for careers or graduate study in the field of conflict management and dispute resolution. Core courses offered by the center give students a solid background in the theory and skills of conflict management while allowing the flexibility to concentrate in a particular area of professional interest. The field of conflict management is interdisciplinary in focus and draws on a base of knowledge and scholarly research in the social sciences, humanities, ethics, education and law. Students are provided with opportunities to utilize and enhance their knowledge of conflict management as they engage in research in the field or work as interns with professionals in the courts, schools, businesses, government and human services.

Core courses:

CACM 11001, Introduction to Conflict Management . . . . .	.3
21002, Solving Problems vs. Transforming Conflicts . . .	.3
21010, Cross-Cultural Conflict Management . . . . .	.3
31003, Nonviolence: Theory and Practice . . . . .	.3
31010, Conflict Theory . . . . .	.3
35092, Internship in Conflict Management	3-12
43030, Mediation: Theory and Training . . . . .	.3
49091, Seminar in Conflict Management . . . . .	.3

Electives: **9-18**

An additional 9-18 hours from one of the following five concentration areas, chosen in consultation with an adviser from CACM:

1. Community Education and Training
2. Human Needs and Human Services
3. Public Policy
4. Social and Political Change
5. General Concentration in Conflict Management

Advisory sheets listing recommended courses for each of these concentrations are available from CACM advisers.

Choose two of the following 30000 level courses: **.6**

CACM 32020, Strategic Planning (3)	
34040, Negotiation (3)	
35050, Public Sector Dispute Resolution (3)	
36060, Conflict Analysis & Intervention Ethics (3)	
TOTAL	48

At least 24 hours taken for the major must be upper-division.

Biology

(see also B.S. program)

Also see "Note" under "Biological Sciences" entry in "Courses of Study" section of this Catalog.

BSCI 10110, Biological Diversity . . . . .	.4
10120, Biological Foundations . . . . .	.4
20140, Cell Biology . . . . .	.4
30156, Elements of Genetics . . . . .	.3
30360, General Ecology . . . . .	.4
40163, Organic Evolution . . . . .	.3

MATH 12001, Algebra and Trigonometry . . . . .	.4
CHEM 10060, 10061, 10062, 10063, General Chem. I, II and Labs	10

Choose one from: **.4**

BSCI 20275, Local Flora (4)	
20560, Invertebrate Zoology (4)	
30171, General Microbiology (4)	

Choose one from: . . . . .	.4
BSCI 30267, Plant Physiology (4)	
40430, General Physiology (4)	
TOTAL	44

Chemistry

(see also B.S. program)

CHEM 30475, 30476, Organic Chemistry Lab . . . . .	.4
30100, Aqueous Equilibrium . . . . .	.2
30101, Quantitative Analysis . . . . .	.2
30102, Solution Chemistry Lab . . . . .	.2
30284, Intro. Biological Chem . . . . .	.4
40361, Intermediate Inorganic Chem. . . . .	.2
40567, Basic Concepts of Physical Chem. . . . .	.4
PHY 13001, 13002, General College Physics I, II	10
MATH 12001, Algebra and Trigonometry . . . . .	.4
12002, Analytic Geometry and Calculus I . . . . .	.5

Choose one from: **.6**

CHEM 30481, 30482, Organic Chemistry (6)	
20481, 20482, Basic Organic Chemistry (6)	
Choose Group One or Group Two: . . . . .	.10
Group One	

CHEM 10060, 10061, General Chemistry I, II (4 each)	
10062, 10063, Gen. Chem. I, II Labs (1 each)	

Group Two	
CHEM 10960, 10961, Honors Gen. Chemistry (5 each)	

TOTAL 55

Classics

(Jennifer Larson, Coordinator, 304-B Satterfield Hall)

Offered through the Department of Modern and Classical Language Studies, the major in classics is a comprehensive program that combines courses in Greek and Latin languages and literatures, with classics courses in English translation. It affords students a broad background in the language, literature, history, art, architecture and culture of the ancient classical world. By carefully choosing electives, classics majors may prepare for graduate work in classics, history or philosophy.

Students wishing a major in classics must choose a program with an emphasis in either Greek or Latin.

Latin

Prerequisite: Elementary II (LAT 16202) or equivalent skills.

LAT	26201, 26202, Inter. Latin I, II	6
GRE	14201, 14202, Elem. Greek I, II	.8
Choose one of:		.3
LAT	36170, Cicero (3)	
	36171, Vergil (3)	
		17

Greek

Prerequisite: Elementary II (GRE 14202) or equivalent skills.

GRE	24201, 24202, Intermediate Classical Greek I and II: Readings	6
LAT	16201, 16202, Elem. Latin I, II	.8
Choose one of:		.3
GRE	34370, Plato <i>Apology</i> and <i>Phaedo</i> (3)	
	34371, Homer (3)	
		17

Both emphases:

Select 18 hours from the following: 18

CLAS	21404, The Greek Achievement (3)	
	21405, The Roman Achievement (3)	
	41301, Classical Mythology (3)	
	41401, Greek Archaeology and Art (3)	
	41402, Roman Archaeology and Art (3)	
	41503, Greek Literature in Translation (3)	
	41097, Colloquium in Classics (3)	
HIST	41003, History of Ancient Greece (3)	
CLAS/HIST	41006, Roman History (3)	
		TOTAL 35

Electives from the following courses are strongly recommended:

ANTH	18420, <i>Intro. to Archaeology</i> (3)
	38480, <i>Archaeological Analysis</i> (3)
ART	22006, 22007, <i>Art History I, II</i> (3 each)
HIST	11050, <i>History of Civilization I</i> (3)
	41004, <i>Hellenic Contributions to Western Civilization</i> (3)
PHIL	31001, <i>Ancient Greek Philosophy</i> (3)

Additional courses in Latin or Greek literature.

Earth Science

(Department of Geology)

The earth science program, taken in conjunction with a minor in education, is designed to prepare students to teach earth science at the junior or senior high school level. The minor in education is required for licensure for high school teaching in this field.

Earth Science Core:

GEOL	11040, Earth Dynamics	3
	11041, Earth Dynamics Lab	1
	11042, Earth History	3
	11043, Earth History Lab	1
	21080, Oceanography	3
	23063, Mineralogy	4
	31070, Petrology	4
	32066, Geomorphology	4
	34061, Invertebrate Paleontology	4
Plus 3 elective hours		3
GEOG	31062, Fundamentals of Meteorology	3
	31064, Principles of Climatology	3
	41073, Conservation—Natural Resources	3
	41082, Geography of Soils	3
Plus 3 upper-division elective hours		3
<i>in geology or geography (GIS recommended).</i>		
CHEM	10060, General Chemistry I	4
	10062, General Chemistry Lab	1
MATH	12001, Algebra and Trigonometry	4
PHY	24001, Astronomy	3
Choose one from:		.4
BSCI	10120, Biological Foundations (4)	
	20560, Invertebrate Zoology (4)	
Choose one from:		.5
PHY	13001, General College Physics I (5)	
	23101, General University Physics (5)	
		TOTAL 66

Economics

ECON	22060, Principles of Microeconomics	3
	22061, Principles of Macroeconomics	3
	32040, Intermed. Microeconomic Theory and Applications	3
	32041, Intermed. Macroeconomic Theory and Policy	3
	32050, Applied Econometrics	3
M&IS	24056, Fundamentals of Business Statistics	3
Electives		15

15 hours of electives from 30000-40000 level economics courses, with the advice of the undergraduate adviser in the Department of Economics and the approval of the Department of Economics chairperson.

Choose one of the following sequences: 7-9

MATH 11011, College Algebra (4)	
11012, Intuitive Calculus (3)	
<i>or</i>	
12001, Algebra and Trigonometry (4)	
12002, Analytic Geometry and Calculus (5)	
TOTAL	40-42

Note: Students interested in pursuing graduate study in economics are encouraged to take MATH 12002 and 12003 (Calculus I and II), and other mathematics and statistics courses. Interested students with the appropriate prerequisites may also want to substitute MATH 40011 for M&IS 24056, with departmental approval.

A major in economics is also offered in the College of Business Administration.

English

Core courses (required)	9
ENG 25001, 25002, Literature in English I, II	6
30001, Introduction to English Studies	3
Electives	9
Distribution requirements	18
<i>Historical courses:</i>	
Choose two courses 6	
ENG 33001, American Literature to 1865 (3)	
33002, American Literature from 1865 to 1945 (3)	
33003, American Literature from 1945 to the Present (3)	
34001, British Literature to 1500 (3)	
34002, British Literature from 1500 to 1660 (3)	
34003, British Literature from 1660 to 1800 (3)	
34004, British Literature from 1800 to 1900 (3)	
34005, British and Irish Literature from 1900 - Present (3)	
34055, Shakespeare (3)	
34065, Chaucer (3)	
34095, Topics: Major Author Studies (3)	
39095, Topics in Literary History (3)	
<i>Genre Studies, Cultural Studies, Literary Theory:</i>	
Choose two courses 6	
ENG 33011, African American Literature (3)	
34011, World Literature in English (3)	
34021, Women's Literature (3)	
34031, Short Story (3)	

35101, Literature and Other Disciplines (3)	
35201, The Bible as Literature (3)	
36001, Literary Criticism (3)	
39195, Topics in Drama (3)	
39295, Topics in Poetry (3)	
39395, Topics in Fiction (3)	
39995, Topics in Cultural Studies (3)	

Writing and Language Studies

Choose two courses 6	
<i>No more than one lower-division course will count toward the major.</i>	
ENG 20001, Business Writing (3)	
20002, Introduction to Technical Writing (3)	
20003, Intermediate Exposition (3)	
20021, Introduction to Creative Writing (3)	
30064, Argumentative Prose (3)	
30065, Expository Prose (3)	
30067, Writer's Workshop in Fiction I (3)	
30068, Writer's Workshop in Fiction II (3)	
30069, Writer's Workshop in Poetry I (3)	
30070, Writer's Workshop in Poetry II (3)	
31001, Fund. of English Grammar (3)	
31002, History of English Language (3)	
31003, Introduction to Linguistics (3)	
39895, Topics in Rhetoric, Composition and Writing (3)	
Senior Seminar	3
ENG 49091, Senior Seminar (3)	
TOTAL	39

Students must complete a minimum of 39 hours. Of those hours, no more than 12 may be lower-division courses. Prerequisites for any course numbered 33001 or above are 1) completion of 25001 or 25002 plus 30001 or 2) permission of the instructor.

Ethnic Heritage

(David Brenner, Director, 314 Satterfield Hall)
The ethnic heritage major is designed to examine the role played by ethnic groups in American society and the influences upon those groups. It seeks to engender an understanding of ethnicity in the development of the distinctive American national character and of the background, experiences and forces acting upon ethnic groups and their communities.

Students pursuing the ethnic heritage major may emphasize British, German, Hellenic, Jewish, Lithuanian, Romanian or Russian studies in their programs. These areas of emphasis are also available as interdisciplinary minors, described elsewhere in this Catalog. The curriculum of the ethnic heritage major is divided into five curricular cores, some of the coursework required in these cores may also be counted toward the college's General Requirements.

Each year several \$1,000 Melton Scholarships will be awarded to students who show academic promise. For more information, contact the Student Financial Aid Office, Michael Schwartz Center.

Core I (Methods/Perspectives)

- SOC 12050, Intro. to Sociology 3
- ANTH 18210, Intro. to Cultural Anthropology 3
- Choose one from:** 3

- SOC 32570, Inequality in Societies (3)
- 32569, Minorities in America (3)
- 32673, Urban Processes and Life Styles (3)
- Choose one from:** 3

- ANTH 38210, Culture and Social Relations (3)
- 38240, Culture and Personality (3)
- 38260, Patterns of Peasant Life (3)
- Choose two from:** 6

- HIST 12071, History of the United States:
The Modern Period (3)
- 31061, History of Ohio (3)
- 41068, U.S.—1900-1929 (3)
- 41069, U.S.—1929-Present (3)

Core II (Appropriate Foreign Language)* 14

Core III (Applications/Expressions)

- HIST 41079, Immigrant in America 3
- ENG 21001, Intro. to Ethnic Literature of the U.S. 3
- Appropriate upper-division course in literature or philosophy . 3-4
- Choose one from:** 3

- GEOG 32061, Cultural Geography (3)
- 36065, Cities and Urbanization (3)

- POL 40116, Public Opinion and Political Behavior (3)

Core IV (Studies Emphasis Area) 18-21**

Core V (Synthesis) 5-6

- Choose either:**
- Undergraduate seminar, colloquium or special topics course (2-3) offered by a humanities or social sciences department plus 3-hour Individual Investigation
- or**
- Academic Term of Study Abroad (3-5)
(or approved field experience/practicum in U.S.), producing an individual investigation project of 3-5 hours.

TOTAL 67-72

*Determined by choice of ethnic studies emphasis.

**See available "Emphasis" programs under Minors: British studies, German studies, Hellenic studies, Jewish studies, Lithuanian studies, Romanian studies, Russian studies.

French

(see also B.S./Translation Program)

Students interested in teacher licensure must contact the departmental pedagogy coordinator for advising to complete the required education minor listed under Minors in Other Colleges.

Prerequisite: Intermediate II (FR 23202) or equivalent skills.

Under no circumstances may the coursework taken toward the major drop below 30 credit hours.

- FR 33211, French Conversation 3
- 33212, French Composition 3
- 33215, French Phonetics and Diction 3
- 33335, Intro. to French Theatre 3
- 33336, Intro. to French Poetry 3
- 33337, Intro. to French Novel 3
- 33421, French Civilization 3
- French culture and literature courses at the 30000-40000 level . 6
- French electives at the 40000 level 6
- TOTAL 33**

Geography

Core Requirements

- GEOG D17063, World Geography 3
- 17064, Geography of the U.S. and Canada 3
- 21062, Physical Geography 3
- 39002, Statistical Methods in Geography 3
- 39161, Introduction to Cartography 3
- 39162, Introduction to Cartography Lab 1
- 40191, Seminar in Geography 3
- One upper-division regional course 3
- plus 21 hours in one of the three concentrations 21
- TOTAL 43**

Environmental Geography

Choose 12 hours 12

At least one of the following courses must be at the 40000 level.

- GEOG 31062, Fundamentals of Meteorology (3)
- 31064, Principles of Climatology (3)
- 41050, Polar & Alpine Environments (3)
- 41062, Advanced Physical Geography (3)
- 41073, Conservation of Natural Resources (3)

- 41074, Resource Geography (3)
- 41082, Geography of Soils (3)
- 41265, Urban Climatology (3)

Other appropriate courses may also count in this concentration.

Plus the following courses 9

- GEOG 49080, Advanced Geographical Information Systems . . . 3
- One other course from Geographical Information Sciences 3
- One course from Social Geography concentration 3

Social Geography

Choose 12 hours 12

At least one of the following courses must be at the 40000 level.

- GEOG 31070, Population and Environment (3)
- D 32061, Cultural Geography (3)
- D 32080, Politics and Place (3)
- 34070, Economic Geography (3)
- 35065, Geography of Transportation and Spatial Interaction (3)
- D 36065, Cities and Urbanization (3)
- 42052, Medical Geography (3)
- 42064, Historical Geography of the U.S. & Canada (3)
- 44010, Advanced Economic Geography (3)
- 45085, Urban Transportation (3)
- 46065, Advanced Urban Geography (3)
- 46070, Urban and Regional Planning (3)

Other appropriate courses may also count in this concentration.

Plus the following courses 9

- Two courses from Geographical Information Sciences 6
- One course selected from Environmental Geography 3

Geographic Information

Choose 12 hours 12

At least one of the following courses must be at the 40000 level.

- GEOG 39080, Introduction to Geographical Information Systems (3)
- 44070, Spatial Analysis & Location Theory (3)
- 49006, Spatial Programming (3)
- 49080, Advanced Geographical Information Systems (3)
- 49162, Advanced Cartography (3)
- 49163, Advanced Cartography Lab (1)
- 49165, GeoMapping (3)
- 49210, Earth Imagery (3)
- 49211, Earth Imagery Lab (1)
- 49230, Remote Sensing (3)

Other appropriate courses may also count in this concentration.

Plus the following courses 9

- One course from Social Geography concentration 3
- One course from Environmental Geography concentration 3

- One Course from Social or Environmental concentration 3

Geology

(see also B.S. program)

- GEOL 11040, Earth Dynamics 3
- 11041, Earth Dynamics Lab 1
- 11042, Earth History 3
- 11043, Earth History Lab 1
- 23063, Mineralogy 4
- 31070, Petrology 4
- 31080, Structural Geology 4
- 32066, Geomorphology 4
- 34061, Invertebrate Paleontology 4
- 44070, Principles of Stratigraphy 4
- plus 3 upper-division hours 3
- MATH 12001, Algebra and Trigonometry 4
- Choose one from: 4**
- BSCI 10120, Biological Foundations (4)
- 20560, Invertebrate Zoology (4)
- CHEM 10060, 10062, Gen. Chemistry I and Lab 5
- TOTAL 48**

Although not required in fulfillment of the major, GEOL 41092, Summer Field Camp, is strongly recommended. Additional coursework beyond the major requirements in chemistry, mathematics, or biology and coursework in physics are also suggested in fulfilling elective hours.

German

(see also B.S./Translation Program)

Students interested in teacher licensure must contact the departmental pedagogy coordinator for advising to complete the required education minor listed under Minors in Other Colleges.

Prerequisite: Intermediate II (GER 21202) or equivalent skills.

Under no circumstances may the coursework taken toward the major drop below 30 credit hours.

- GER 31201, Intensive German Grammar 3
- 31211, Composition and Conversation 3
- 31215, German Phonetics and Diction 3
- 31303, Introduction to German Literature 3
- 31421, German Civilization 3

41211, Advanced German Composition and Conversation	3
41216, Contemporary German Culture	3
GER literature or culture electives at 30000-40000 level	6
MCLS 21417, Multiculturalism in Today's Germany	3
TOTAL	30

Greek

The Department of Modern and Classical Language Studies offers courses of study beyond the minimum needed to meet the foreign language requirement in Greek (classical and modern). However, no major is available at this time. The courses are listed under the departmental course offerings in the back of the Catalog.

History

HIST 11050, 11051, History of Civilization I, II	6
12070, History of the U.S.: The Formative Period	3
12071, History of the U.S.: The Modern Period	3
plus 21 upper-division hours	21
TOTAL	33

The 21 additional hours required for a major shall include at least 6 hours of United States history, 6 hours of European history since 1500 (including English and Russian), and 3 hours in the fields of African, ancient, medieval, Latin American or Far Eastern history.

The Individualized Major

(College of Arts and Sciences, 105 Bowman Hall)

The individualized major is designed to allow students to pursue a self-constructed course of study leading to a Bachelor of Arts degree. The major is intended for students with focused educational objectives that cannot be met through standard majors offered by the college.

The program, with a core of related and clearly articulated courses, must be planned in consultation with the dean of the college or the dean's designee; the program must be approved by the Curriculum Committee of the college or its designee. Courses in other colleges in the university may be included in the individualized major, with the limitation that two-thirds of the hours counted for the major must be within the College of Arts and Sciences.

Formal application for this major must be made by the beginning of the junior year. Transfer students with junior standing or beyond must make application immediately upon entrance to Kent State University. Revisions in the program after its approval may be made by the dean or the dean's designee.

The requirements for an individualized major are as follows:

1. 121 hours required for graduation.
2. 42 hours of upper-division coursework.
3. The General Requirements for the B.A. degree in the College of Arts and Sciences.
4. A coherent program of at least 35 hours that the students design to fit their needs. At least half of this program must be in upper-division coursework. This program must be presented to the Curriculum Committee of the college or its designee for recommendations and final approval.

Students considering the individualized major should seek advice from the college office at the earliest possible time, but in any case well before submitting a proposed program.

International Relations

(Center for International and Comparative Programs, 124 Bowman Hall)

The international relations major combines language skills with a theoretical background in economics, politics, geography and history. The ability to use one foreign language fluently is a requirement for graduation. This program provides a basis for work in government, diplomacy or related fields. Students in the international relations major are encouraged to participate in Kent State and other university study-abroad programs.

Economics

ECON 22060, Principles of Microeconomics	3
22061, Principles of Macroeconomics	3
Choose one from:	3
32075, Intro. to International Trade (Geneva) (3)	
42073, Comparative Economic Systems (3)	
42075, International Economic Relations (3)	

Political Science

POL 10500, World Politics	3
10004, Comparative Politics	3
Choose two from:	6
30511, Problems of International Organization (Geneva) (3)	
30551, U.S.-Latin American Relations (3)	
30820, International Organization and Law (3)	

40830, U.S. Foreign Policy (3)
 40840, Comparative Foreign Policy (3)
Choose two from: 6
 30520, European Politics (3)
 30530, Asian Politics (3)
 30540, African Politics (3)
 30550, Latin American Politics (3)
 40540, Politics of Development (3)

Geography
Choose one from: 3
 GEOG 37040, Geography of Africa (3)
 37050, Geography of Russia and the
 Commonwealth States (3)
 37066, Geography of Europe (3)
 37079, Geography of South Asia (3)
 37084, Geography of South America (3)
 37085, Geography of Central America and Mexico (3)

History
Choose two from: 6
 HIST 31024, World War II (3)
 31029, Hist. of British Empire and
 Commonwealth Since 1815 (3)
 31112, Chinese Civilization (3)
 31125, Zionism and Israel (3)
 31126, History of the Middle East (3)
 31128, Late Medieval and Modern Jewish History (3)
 31130, Hist. of African Civilization (3)
 31141, Early Latin America (3)
 31140, Modern Latin America (3)
 41020, 19th-Century Europe (3)
 41024, Modern European History, 1914 to 1945 (3)
 41025, Modern European History: 1945 to Present (3)
 41041, History of Germany, 1871 to Present (3)
 41044, Russia from its Origins to 1801 (3)
 41045, Russia, 1801 to Present (3)
 41049, History of the Balkans:
 18th Century to 1914 (3)
 41050, History of the Balkans: 1914 to Present (3)
 41112, History of Modern China (3)
 41114, Economic History of East Asia in Modern Times (3)
 41116, History of Japan (3)
 41132, History of Africa, 1880-Present (3)
 41135, History of West Africa (3)
 41142, Independence in Latin America (3)
 41143, 20th-Century Mexico (3)
 42297, Colloquium: China and Japan (3)
 45697, Colloquium in Social History of Latin America (3)
 45797, Colloquium in Comparative
 Latin American Revolutions (3)

46597, Colloquium in 20th-Century
 European Diplomacy (3)
 47597, Colloquium on NATO (3)
Foreign Language Requirement 3
 1. One course beyond the intermediate II level in French, German,
 Russian or Spanish.*
 2. Satisfactory performance in a language proficiency test which
 covers speaking, listening, reading and writing. The test will be
 administered by CICP in cooperation with the language depart-
 ment. This requirement may also be satisfied through completion
 of two additional approved courses in the same or a closely related
 language with a grade of A or B. Prior approval for courses used in
 this connection must be given in writing by student's adviser.

TOTAL 39

*Students may appeal to their adviser for substitution of another language, when justified by special circumstances.

Italian

The Department of Modern and Classical Language Studies offers courses of study beyond the minimum needed to meet the foreign language requirement in Italian. However, no major is available at this time. The courses are listed under the departmental course offerings in the back of the Catalog.

Justice Studies

Core Requirements

JUS 12000, Intro. to Justice Studies 3
 22300, Police Role 3
 26701, Corrections 3
 26702, Criminology 3
 32400, Research Methods in Justice Studies 3
 33200, Criminal Law 3
 47211, Court Functions 3
Choose one from: 3
 JUS 37311, Minorities in Crime and Justice (3)
 37411, Women in Crime and Justice (3)

Substantive Areas:
Choose one course from: Police Studies 3
 JUS 22301, Investigative Process (3)
 32200, Police and Community (3)
 44400, Justice Administration (3)
 44411, Varieties of Police Work (3)
Plus one course from: Corrections 3
 JUS 22100, Basic Interviewing (3)
 32500, Crisis Intervention (3)

	46705, Community Corrections (3)	
	46707, Correctional Institutions (3)	
	46708, Treatment Methods (3)	
	Plus two courses from: Justice and Law	6
JUS	26704, Law and Society (3)	
	27311, Victimology (3)	
	33300, Dev. of Justice in America (3)	
	34200, Criminal Procedures and Evidence (3)	
	36703, Juvenile Delinquency (3)	
	46706, Juvenile Justice (3)	
	47111, Civil Law and Procedure (3)	
	47311, Comparative Justice Systems (3)	
	Major Electives	9
<i>The remaining 9 hours needed to complete the major can be selected from any course listed in the justice studies curriculum or from the following list of courses:</i>		
PSYC	40111, Abnormal Psychology (3)	
	40383, Psychological Interventions (3)	
POL	30130, Courts (3)	
	30301, Intro. to Public Administration (3)	
	40183, Constitutional Law: Civil Rights and Liberties (3)	
PHIL	31035, Philosophy and Justice (3)	
	TOTAL	45

Note: 12 of the 21 required hours (beyond the core) must be upper-division courses. A total of 6 hours of 46792, Internship; 45093, Variable Title Workshop; or 45096, Individual Investigation, can be used toward the fulfillment of the 9 remaining hours. JUS 36792 cannot be used as a major elective.

Latin

Students interested in teacher licensure must contact the departmental pedagogy coordinator for advising to complete the required education minor listed under Minors in Other Colleges.

Prerequisite: Elementary II (LAT 16202) or equivalent skills.

LAT	26201, 26202, Inter. Latin I, II: Readings	6
	36170, Cicero	3
	36171, Vergil	3
CLAS	21201, English Words from Classical Elements	3
CLAS/HIST	41006, Roman History	3
	Select 9 hours of upper-division courses from:	9
LAT	36211, Latin Prose Composition (3)	
	36372, Lyric Poetry (3)	
	36351, Latin Comedy (3)	
	* 36373, Advanced Prose Authors (3)	
	* 46095, Selected Topics in Latin (3)	

	46352, Elegiac Poets (3)	
	46374, Juvenal and Martial (3)	
	46375, Lucretius (3)	
	Select 9 hours from:	9
CLAS	21404, The Greek Achievement (3)	
	21405, The Roman Achievement (3)	
	41301, Classical Mythology (3)	
	41402, Roman Archaeology and Art (3)	
	41503, Greek Literature in Translation (3)	
	41097, Colloquium in Classics (3)	
	TOTAL	36

**May be repeated if different authors are read.*

Latin American Studies

(Dean's Office, College of Arts and Sciences, 105 Bowman Hall)

The Latin American studies program provides a broad academic background with a regional focus on Latin America. The curriculum allows students to cross departmental lines to pursue an integrated program that includes the study of Portuguese and Spanish.

To allow students to move with ease from this program into such pursuits as teaching at the secondary level or into a departmental M.A. program, LAS encourages its majors to pursue a second major from such disciplines as anthropology, economics, geography, history, political science, sociology and Spanish.

21 hours of specific courses on Latin America 21
selected from at least four of the disciplines listed below:

ANTH	48425, Prehistory: Mesoamerica (3)	
GEOG	37084, Geography of South America (3)	
	37085, Geog. of Central America and Mexico (3)	
HIST	31140, Modern Latin America (3)	
	31141, Early Latin America (3)	
	31143, African-Brazilian Experience in Culture and Literature (3)	
	41142, Independence in Latin America (3)	
	41143, 20th-Century Mexico (3)	
	45697, Colloquium: Social History of Latin America (3)	
	45797, Colloquium: Comparative Latin American Revolutions (3)	
HONR	30497, Colloquium: International Study (1-4)	
MCLS	28404, The Latin American Experience (3)	
	37143, African-Brazilian Experience in Culture and Literature (3)	
PAS	33508, Caribbean Social and Political Directions (3)	

	37143, African-Brazilian Experience in Culture and Literature (3)	
POL	30551, U.S.-Latin America Relations (3)	
	30550, Latin American Politics (3)	
PORT	37330, Early Brazilian Literature (3)	
	37331, Recent Brazilian Literature (3)	
	37421, Luso-Brazilian Civilization (3)	
SPAN	38334, Early Spanish American Literature (3)	
	38335, Recent Spanish American Literature (3)	
	38424, Culture and Civilization of Latin America (3)	
	48366, The Novel of the Mexican Revolution (3)	
	48372, Spanish American Novel I (3)	
	48373, Spanish American Novel II (3)	
	48374, Modern Spanish American Drama (3)	
	48376, Contemporary Spanish American Short Story (3)	
	Selected Topics	
	<i>appropriate offerings on Latin America. Individual Investigation, individual research on Latin America.</i>	
	22 hours of language by following: Plan A or Plan B 21-22	
	<i>Plan A: 13 hours of Portuguese and 8 hours of Spanish.</i>	
	<i>Plan B: 14 hours of Spanish and 8 hours of Portuguese.</i>	
	9 hours from the following recommended ancillary courses: . . 9	
ANTH	18210, Intro. to Cultural Anthropology (3)	
	18420, Prehistoric Archaeology (3)	
	28210, Primitive Art (3)	
	38250, Religion: A Search for Meaning (3)	
	38260, Patterns of Peasant Life (3)	
	48230, Socio-Cultural Change (3)	
	48420, Archaeology of North America (3)	
ECON	32083, Economics of Poverty (3)	
	42075, International Economic Relations (3)	
GEOG	32061, Cultural Geography (3)	
	36065, Cities and Urbanization (3)	
HIST	31078, African American History (3)	
	41056, History of Colonial America: 1492-1714 (3)	
MUS	42111, African Music and Cultures (3)	
PAS	24407, Caribbean Studies (3)	
	42095, Special Topics in the Literature of Pan-Africa (3)	
PHIL	31006, 19th-Century Philosophy (3)	
	31010, 20th-Century Philosophy (3)	
POL	10500, World Politics (3)	
	10004, Comparative Politics (3)	
	30820, International Organization and Law (3)	
	40830, U.S. Foreign Policy (3)	
	40840, Comparative Foreign Policy (3)	
SOC	12050, Intro. to Sociology (3)	
	32569, Minorities in America (3)	
	32610, Birth, Death and Migration (3)	
	32673, Urban Processes and Life Styles (3)	
	<hr/> <hr/>	
	TOTAL 51-52	

Mathematics

(see also B.S. program)

MATH*	12002, 12003, Analytic Geometry and Calculus I, II . . .	10
	21001, Linear Algebra with Applications	3
	22005, Analytic Geometry and Calculus III	3
CS	10051, Intro. to Computer Science	4
	plus 9 additional hours	9
	<i>of approved 40000-level MATH or CS courses</i>	
	plus one of the following two sequences:	6
MATH	41001, 41002, Intro. to Modern Algebra I, II (6)	
	42001, 42002, Intro. to Analysis I, II (6)	
	<hr/> <hr/>	
	TOTAL	35

*MATH 12001, which is a prerequisite for MATH 12002, should be bypassed by students with sufficient background.

Pan-African Studies

Required Courses:

PAS	13001, Foundations in Pan-African Studies I	3
	13002, Foundations in Pan-African Studies II	3
	37000, Oral & Written Discourses in PAS	3
	37010, Research Methods in Pan-African Studies	3
	47091, Senior Seminar in Pan-African Studies	3
	Choose one from:	3
PAS	22200, Intro. to African Arts (3)	
	34000, Intro. to African World View (3)	
	Choose one from:	3
PAS	35100, African American Social, Political, and Economic Systems (3)	
	35200, African Social, Political, and Economic Systems (3)	
	plus one of the following concentrations	24

Pan-African Studies

PAS Courses	. . . . .	18-21
Electives from other departments	. . . . .	3-6

African Diaspora Studies

	Choose from the courses listed below:	9-12
PAS	23171, The African American Community (3)	
	33110, The Black Woman: Historical Perspectives (3)	
	33120, The African Am. Man in Contem. Society (3)	
	24407, Caribbean Studies I (3)	

- 33508, Caribbean Social and Political Directions (3)
- 37143, The African-Brazilian Experience in Culture and Literature (3)
- 43395, ST: African Diaspora Studies (3)

Choose from the courses listed below:0-3

- HIST 31140, Modern Latin America (3)
- 31141, Early Latin America (3)
- PORT 37421, Luso-Brazilian Civ. (3)
- MCLS 28404, The Latin American Experience (3)

Adviser-Approved Electives:12

Pan-African Literature, Arts and Culture

Choose from the courses listed below:9-12

- PAS 22000, African World Creative Writing (3)
- 22101, African American Visual Artists (3)
- 22200, Introduction to African Arts (3)
- 22201, Expressivity in African Arts (3)
- 31092, Practicum in African Theatre Arts (3)
- 32010, The Pan-African Essay (3)
- 33200, Ancient African Cultures (3)
- 42095, ST: PA Literature, Arts & Culture (3)

Choose from the courses listed below:0-3

- MUS 42111, African Music and Cultures (3)
- 42161, History of Jazz (3)
- 45231, Jazz Ensemble (3)

Adviser-Approved Electives:12

Theoretical and Applied Research

Choose from the courses listed below:9-12

- PAS 34000, Intro. to African World View (3)
- 37010, Research Methods in PAS (3)
- 37020, Pan-Africanism and Model OAU (3)
- 47010, Theoretical Approaches to PAS (3)
- 47150, The Underground Railroad (3)
- 47095, ST: Theoretical & Applied Research (3)

Choose from the courses listed below:0-3

- PAS 30010, African & African American Philosophy (3)
- POL 30001, Political Methods (3)

Adviser-Approved Electives:12

TOTAL	45
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Major electives are selected with the approval of an adviser.

12 of the 24 hours in the concentration must be upper-division courses.

PAS majors are recommended to satisfy their college language requirement with the study of an African language, such as Kiswahili or Yoruba.

Paralegal Studies*

*Pending Ohio Board of Regents Approval.

(Hedi Naseri, Coordinator)

Kent State University offers a Bachelor of Arts in Paralegal Studies that has American Bar Association approval. Paralegal studies is an interdisciplinary program in the College of Arts and Sciences and is conducted in the Department of Justice Studies. The program combines a liberal arts/general education background with law-related specialty courses to provide the graduate with communication skills, knowledge of the legal system and practical hands-on experience.

The paralegal studies program at Kent State University is designed to educate prospective paralegals in all areas of law. The program focuses on developing the critical reasoning, analytical skills and legal knowledge essential to succeed in today's paralegal and law-related occupations. Graduates are prepared for careers in private law offices, public agencies, corporations, legal services and law-related occupations in corporations, banks and other business entities.

Students also have the option to minor in paralegal studies in conjunction with a four-year baccalaureate degree. (See paralegal minor.)

- JUS 18000, Introduction to Paralegal Studies3
- 28001, Legal Research and Writing3
- 28004, Principles and Practice of Litigation3
- * 36792, Internship in Paralegal6
- 38006, Applied Legal Research and Litigation3
- Choose six of the following courses:18**
- 28003, Family Law and Procedure (3)
- 28007, Estate and Probate Administration (3)
- 38002, Contract Law (3)
- 38003, Administrative Law and Process (3)
- 38004, Legal Ethics and Professional Responsibility (3)
- 38005, Tort Law (3)
- 48300, Law of Corporations and Other Associations (3)
- 48400, Intellectual Property Law (3)
- Choose four of the following courses:12**
- ACCT 33000, Fundamental Tax Procedures (3)
- FIN 26074, Legal Environment of Business (3)

	36071, Critical Issues in Law Management (3)	
	36073, Real Estate Law (3)	
JUS	33200, Criminal Law (3)	
	34200, Criminal Procedures and Evidence (3)	
	38007, Human Service Agencies and the Law (3)	
	46706, Juvenile Justice (3)	
	47111, Civil Law and Procedure (3)	
	47211, Court Functions (3)	
PHIL	31035, Philosophy and Justice (3)	
	41025, Philosophy of Law (3)	
POL	30130, Courts (3)	
	30301, Introduction to Public Administration (3)	
	40182, Constitutional Law: Government Structures and Functions (3)	
	40183, Constitutional Law: Civil Rights and Liberties (3)	
	TOTAL	48

*May be taken for up to 12 credits.

Minimum cumulative 2.00 GPA required.

Philosophy

PHIL	11001, Intro. to Philosophy	3
	11009, Principles of Thinking	3
	21001, Intro. to Ethics	3
	21020, Comparative Religious Thought I	3
	plus 15 upper-division hours	15
	<i>at least 9 of which must be at the 40000 level</i>	
	Choose one from:	3
PHIL	21002, Intro. to Formal Logic (3)	
	31045, Formal Logic (3)	
	Choose four of the following courses:	12
PHIL	31001, Ancient Greek Philosophy (3)	
	31002, Medieval Philosophy (3)	
	31003, Continental Rationalism (3)	
	31004, British Empiricism (3)	
	31005, German Critical Philosophy (3)	
	31006, 19th-Century Philosophy (3)	
	31010, 20th-Century Philosophy (3)	
	31020, American Philosophy (3)	
	TOTAL	42

Physics

(see also B.S. program)

PHY	23001, 23002, 23003, Univ. Physics Frontiers I, II, III	10
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	30020, Intermediate Physics Lab	2
	35101, Mechanics I	3
	36001, Introductory Modern Physics	3
	40020, Advanced Physics Lab	2
	45201, Electromagnetic Theory I	3
	45301, Thermodynamics	3
	plus 7 approved elective hours**	7
	MATH*12002,12003, Analytic Geometry and Calculus I, II	10
	21001, Linear Algebra with Applications	3
	22005, Analytic Geometry and Calculus III	3
	32044, Introduction to Ordinary Differential Equations	3
	TOTAL	52

*MATH 12001, which is a prerequisite for MATH 12002, should be bypassed by students with sufficient background. MATH 12001 may be waived by obtaining permission from the Department of Mathematics or by passing the placement exam given by Academic Testing Services.

**Students in the B.A. program may replace 3 hours of these physics electives with either PHIL 41035, Philosophy of Science or ENG 20002, Technical Writing with adviser's permission.

Courses that do not count toward the major:

PHY	11030, Seven Ideas that Shook the Universe (3)	
	21040, Physics in Entertainment and the Arts (3)	
	21430, Frontiers in Astronomy (3)	
	24001, Astronomy (3)	
	32551, Applied Engineering Mechanics (3)	

Political Science

All students must take this core of 24 hours plus 12 hours in one of the four concentrations listed below.

Requirements:	24	
POL	10004, Comparative Politics	3
	10100, American Politics	3
	10300, Public Policy	3
	10500, World Politics	3
	30001, Political Methods	3
	30002, Political Thought	3
	30003, Political Economy	3
	Choose one of	3
POL	40191, Seminar in American Politics (3)	
	40391, Seminar in Public Policy (3)	
	40591, Seminar in International Relations	
	-Comparative Politics (3)	
	plus 12 hours in one of the four concentrations	12
	TOTAL	36

American Politics

12 hours selected from:12

- POL 30100, American Political Theory (3)
 30110, The Congress (3)
 30120, Presidency and Executive Bureaucracy (3)
 30130, Courts (3)
 30420, Intergovernmental Policy Making (3)
 30430, State Government (3)
 30450, Metropolitan Governance (3)
 30460, Federalism and Intergovernmental Relations (3)
 40111, Political Campaign Management (3)
 40112, Politics and the Mass Media (3)
 40116, Public Opinion and Political Behavior (3)
 40118, Political Parties and Interest Groups (3)
 40182, Constitutional Law: Government Structures and Functions (3)
 40183, Constitutional Law: Civil Rights and Liberties (3)
 40440, U.S. Environmental Politics and Policies (3)
 40470, Women and Politics (3)
 40920, Politics of Social Movements (3)

General

12 hours of upper-division courses12

12 hours of upper-division courses selected in consultation with the student's adviser.

International Relations-Comparative Politics

12 hours selected from:12

- POL 30500, International Relations Theory (3)
 30501, Comparative Theory & Concepts (3)
 30520, European Politics (3)
 30530, Asian Politics (3)
 30540, African Politics (3)
 30550, Latin American Politics (3)
 30551, U.S.-Latin American Relations (3)
 30810, Politics of the Global Economy (3)
 30820, International Organization and Law (3)
 30840, Nongovernmental Organizations (3)
 40530, Politics of War (3)
 40540, Politics of Development (3)
 40560, Human Rights and Social Justice (3)
 40810, Government-Business Relations (3)
 40830, U.S. Foreign Policy (3)
 40840, Comparative Foreign Policy (3)

40920, Politics of Social Movements (3)

Public Policy

12 hours selected from:12

- POL 30300, Public Policy Theory (3)
 30301, Introduction to Public Administration (3)
 30310, Qualitative Policy Analysis (3)
 30320, Institutional Analysis (3)
 30350, Public Sector Dispute Resolution (3)
 30420, Intergovernmental Policymaking (3)
 30430, State Government (3)
 30450, Metropolitan Government (3)
 30460, Federalism and Intergovernmental Relations (3)
 30810, Politics of the Global Economy (3)
 30820, International Organization and Law (3)
 30840, Nongovernmental Organizations (3)
 40310, Political Economy of Public Policy (3)
 40320, Ethics and Public Policy (3)
 40350, Cultural Diversity in Public Policy (3)
 40440, U.S. Environmental Politics and Policies (3)
 40470, Women and Politics (3)
 40810, Government-Business Relations (3)
 40830, U.S. Foreign Policy (3)
 40840, Comparative Policy (3)
 40920, Politics of Social Movements (3)

POL 40996, Individual Investigation, and POL 40992, Public Service, may not be applied toward the upper-division hour requirement; POL 40991, Washington Program in National Issues and POL 30991, Sem: Columbus Program in Intergovernmental Issues, may be applied to meet the upper-division hour requirement; POL 40995, Special Topics, may be applied to meet the upper-division hour requirement as approved by the department.

Portuguese

The Department of Modern and Classical Language Studies offers courses of study beyond the minimum needed to meet the foreign language requirement in Portuguese. However, no major is available at this time. The courses are listed under the departmental course offerings in the back of the Catalog.

Psychology

- PSYC 11762, General Psychology 3
 21621, Quantitative Methods in Psych. I 3
 31574, Research Methods in Psychology 3
 41990, Writing in Psychology 1

plus 8 hours of upper-division credit in psychology . . . . .	.8
Choose one from: . . . . .	.3
20651, Child Psychology (3)	
21211, Psychology of Adjustment (3)	
Choose one from: . . . . .	.3
31043, Basic Learning Processes (3)	
41363, Biopsychology (3)	
Choose one from: . . . . .	.3
30445, Cognitive Psychology (3)	
31141, Perception (3)	
Choose one from:3
41282, Personality (3)	
41532, Social Psychology (3)	
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TOTAL	30

Note: No more than 6 credit hours of PSYC 31498, 41498, 41495 and 41574 combined may be applied toward major requirements in psychology.

Note: Students following the premedical or predentistry options must take PSYC 41363, 40111, 40383 and 40231.

Russian

(see also B.S./Translation Program)

Students interested in teacher licensure must contact the departmental pedagogy coordinator for advising to complete the required education minor listed under Minors in Other Colleges.

Prerequisite: Intermediate II (RUSS 22202) or equivalent skills.

Under no circumstances may the coursework taken toward the major drop below 30 credit hours.

RUSS 32207, Russian Conversation	2
32211, Russian Composition and Conversation	3
32215, Russian Phonetics and Diction	3
32303, Introduction to Modern Writers	3
32421, Russian Civilization	4
42211, Adv. Composition and Conversation	3
42351, Survey: Russian and Soviet Literature	4
RUSS literature or culture electives at 30000-40000 level	6
RUSS elective at 40000 level	3
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TOTAL	31

Sociology

SOC 12050, Intro. to Sociology	3
32210, Researching Society	3
32220, Data Analysis	3
32221, Data Analysis Laboratory	1
42126, Sociological Theories	3
42991, Senior Seminar in Sociology	3
plus 18 additional hours of SOC courses	18
<i>at least 12 of these to be upper-division hours</i>	
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TOTAL	34

Soviet and East European Studies

(Argyrios K. Pisiotis, Coordinator, 321 Bowman Hall)

The Soviet and East European program provides a basis for the development of a comprehensive understanding of the peoples of the former Soviet Union and Eastern Europe, including Albania, Bulgaria, Czechoslovakia, East Germany, Greece, Hungary, Poland, Romania and former Yugoslavia. It investigates the historical, economic, geographic, governmental, linguistic and literary elements that have contributed to the rise and maintenance of the Russian Empire and its successor state, the U.S.S.R., and the course of the development of the peoples of Eastern Europe.

Prerequisites:

ECON 22060, Principles of Microeconomics (3)	
22061, Principles of Macroeconomics (3)	
GEOG 10160, Intro. to Geography (3)	
RUSS 12201, 12202, Elementary Russian I, II (8)	

plus

22201, 22202, Intermediate Russian I, II,

or

14 hours of an East European language (6-14)

Requirements:

A&S 40197, Russian Area Studies Colloquium	3
HIST 45597, Colloquium in Russian History	3
GEOG 37050, Geography of Russia and the Commonwealth States.	3
47075, Resource Geography of U.S.S.R.	3
POL 40438, International Relations of Europe	3
Choose one from:	3
HIST 41044, Russia from its Origins to 1801 (3)	
41049, Balkans: 18th Century to 1914 (3)	
Choose one from:	3
HIST 41045, Russia, 1801 to Present (3)	
41050, Balkans: 1914 to Present (3)	

Choose one from: 3-4

HIST 31050, History and Society of Modern Greece (3)	
31051, Romanian Civilization (3)	
RUSS 32421, Russian Civilization (4)	
	TOTAL 27-28

The following courses, as they can be fitted into a student's program, would also be valuable as supportive elective selections:

- HIST 11050, 11051, Hist. of Civilization I, II (6)
- ECON 42073, Comparative Econ. Systems (3)
- POL 10004, Comparative Politics (3)
- RUSS 32303, Modern Writers (3)
- 32325, Russian Poetry and Folklore (3)
- 32350, Russian Prose (3)
- 32354, Russian Drama (3)

Spanish

(see also B.S./Translation Program)

Students interested in teacher licensure must contact the departmental pedagogy coordinator for advising to complete the required education minor listed under Minors in Other Colleges.

Prerequisite: Intermediate II (SPAN 28202) or equivalent skills.

Under no circumstances may the coursework taken toward the major drop below 30 credit hours.

SPAN 38211, Spanish Grammar and Composition	3
38213, Spanish Reading and Conversation	3
38215, Spanish Phonetics and Diction	3
38421, Civilization of Spain	3
38424, Culture and Civilization of Latin America	3
SPAN literature or culture elective at 30000-40000 level	3
SPAN elective at the 40000-level	3
SPAN 48215, Spanish Composition and Conversation—Advanced	3
Choose 9 hours from:	9
38330, Early Spanish Literature (3)	
38331, Recent Spanish Literature (3)	
38334, Early Spanish-American Literature (3)	
38335, Recent Spanish-American Literature (3)	
	TOTAL 33

Note: Students may wish to expand their acquaintance with Spain or Latin America by investigating the Latin American studies program.

BACHELOR OF SCIENCE

General Requirements

The university's Liberal Education Requirements (see Pages 77-80) are included in the College of Arts and Sciences' General Requirements. Students should consult the college office if they have questions concerning the applicability of specific coursework to the General Requirements. None of the courses listed as part of the college's General Requirements may be taken pass-fail.

For the purposes of the General Requirements, students' major departments are defined as the departments that house the major, field of concentration or interdisciplinary program. For students in double major and dual degree programs, the restrictions on the applicability of major coursework toward the General Requirements are applied to only one of their majors (generally the primary major).

The following General Requirements apply to all B.S. degree programs in the College of Arts and Sciences.

- I. **Composition** 6
 - ENG 10001, College English I (3)
 - 10002, College English II (3)
 - Placement by ACT/SAT English composition scores; students may be required to take ENG 10000.
- II. **Mathematics, Logic and Foreign Languages**
 - One foreign language or American Sign Language or equivalent in proficiency 8
 - The requirement may be fulfilled by:
 - A. Passing the first two semesters of any foreign language or American Sign Language (students who receive advanced placement will meet the requirement by passing the second semester of a language).
 - B. Placement in courses beyond elementary II level on the placement examination administered by Academic Testing Services. Consult with the Modern and Classical Languages department for further information.
 - C. Passing a course beyond elementary II level.
 - D. Receiving credit for elementary II or beyond from CBE, CLEP or transfer.
 - Note: The requirement may be met with fewer than 8 hours if students receive advanced placement. In this case, students are required to complete the remaining hours with "free" electives.
- Mathematics or Logic** 3-5

Students must pass one of the courses listed below or establish proficiency.

 - MATH 10041, Elementary Probability and Statistics (3)
 - 11008, Explorations in Modern Mathematics (3)
 - 11011, College Algebra (4)
 - 11012, Intuitive Calculus (3)
 - 12001, Algebra and Trigonometry (4)

- 12002, Analytic Geometry and Calculus I (5)
- PHIL 11009, Principles of Thinking (3)
- 21002, Intro. to Formal Logic (3)
- 31045, Formal Logic (3)

Restrictions:

Since MATH 12001 covers the same content as 11011 plus 11022, credit is not allowed for both 12001 and 11011 or for both 12001 and 11022.

Note: MATH 14001 and 14002 may be used to meet the requirement provided both courses were completed while students were enrolled in another college.

III. Humanities and Fine Arts 9

Required:

All 9 required hours in the Humanities and Fine Arts must be selected from the courses listed below. At least one course must be selected from Humanities: Arts and Sciences. At least one course must be selected from Fine Arts: Fine and Professional Arts.

Restrictions:

No coursework from the major department may be counted toward the Humanities and Fine Arts.

Note: Any course marked with a "D" that is taken to satisfy the Humanities and Fine Arts will also satisfy a Diversity Requirement provided that course is not in the major department. Diversity courses marked additionally with an asterisk (*) have a domestic perspective.

Humanities: Arts and Sciences

- CLAS D21404, The Greek Achievement (3)
- D21405, The Roman Achievement (3)
- ENG 21054, Intro. to Shakespeare (3)
- 22071, Great Books I (3)
- 22072, Great Books II (3)
- 22073, Major Modern Writers (3)
- HIST D11050, History of Civilization I (3)
- D11051, History of Civilization II (3)
- D*12070, History of the U.S.: The Formative Period (3)
- D*12071, History of the U.S.: The Modern Period (3)
- PAS D23001, Black Experience I: Beginnings to 1865 (3)
- D*23002, Black Experience II: 1865 to Present (3)
- PHIL D11001, Intro. to Philosophy (3)
- D21001, Intro. to Ethics (3)
- D21020, Comp. Religious Thought I (3)
- D21021, Comp. Religious Thought II (3)

Humanities: Fine and Professional Arts

- COMM 15000, Theory and Practice of Oral Discourse (3)
- D*26000, Criticism of Public Discourse (3)
- JMC D*20001, Media, Power and Culture (3)

Fine Arts: Fine and Professional Arts

- ARCH 10001, Understanding Architecture (3)
- 10011, Survey of Architectural History I (3)
- 10012, Survey of Architectural History II (3)

- ART 12001, Art Survey (3)
- 22006, Art History I: Ancient and Medieval Art (3)
- 22007, Art History II: Renaissance to Modern Art (3)
- D*22020, Art of Africa, Oceania, and the Americas (3)
- DAN D27076, Dance as an Art Form (3)
- MUS 22111, Understanding of Music (3)
- D22121, Music as a World Phenomenon (3)
- THEA D11000, The Art of the Theatre (3)

IV. Social Sciences 9

Required:

Coursework must be selected from at least two curricular areas (e.g., ANTH, ECON, etc.). All 9 required hours in the Social Sciences must be selected from the courses listed below.

Restrictions:

No coursework from the major department may be counted toward the Social Sciences.

Note: Any course marked with a "D" that is taken to satisfy the Social Sciences will also satisfy a Diversity Requirement provided that course is not in the major. Diversity courses marked additionally with an asterisk (*) have a domestic perspective.

- ANTH D18210, Intro. to Cultural Anthropology (3)
- 18420, Prehistoric Archaeology (3)
- ECON 22060, Prin. of Microeconomics (3)
- 22061, Prin. of Macroeconomics (3)
- GEOG 10160, Intro. to Geography (3)
- D17063, World Geography (3)
- 17064, Geography of U.S. and Canada (3)
- JUS 26704, Law and Society (3)
- POL D10004, Comparative Politics (3)
- D*10100, American Politics (3)
- D*10301, Diversity in American Public Policy (3)
- D10500, World Politics (3)
- PSYC 11762, General Psychology (3)
- 20651, Child Psychology (3)
- 21211, Psyc. of Adjustment (3)
- D*22221, Multicultural Psychology (3)
- SOC D*12050, Intro. to Sociology (3)
- D22778, Social Problems (3)

V. Basic Sciences 9

Required:

Nine hours are required in the Basic Sciences. At least 6 hours must be selected from the courses listed below or from beginning "major sequence" courses in (biological) ANTH (ANTH 38630), BSCI (BSCI 10110, 10120), CHEM (CHEM 10060, 10061, 10062, 10063, 10960, 10961) and PHY (PHY 23101, 23102). The remaining 3 hours may optionally be selected from other courses in BSCI, CHEM, GEOL and PHY.

Restrictions:

No more than two courses from any curricular area (not counting laboratories) may be counted toward the Basic Sciences. No

coursework from the major department may be counted toward the 6 hours that must be selected from the courses listed below.

Credit toward the Basic Sciences is not allowed for:

- both the PSCI 11660 series and either the CHEM 10050 series, the CHEM 10060 series or the PHY 13001 series.
- both the CHEM 10050 series and the CHEM 10060 series.
- more than one of the PHY 13001, PHY 13011 or PHY 23101 series.
- combinations of BSCI 10001, the BSCI 10110 series and/or the BSCI 20020 series.

- ANTH 18630, Human Evolution (3)
- BSCI 10001, Human Biology (3)
 - 10002, Ecology, Evolution and Society (3)
 - 20020, Biological Structure and Function (5)
- CHEM 10030, Chemistry in Our World (3)
 - 10050, Fundamentals of Chemistry (3)
 - 10052, Intro. to Organic Chemistry (2)
 - 10053, Organic and Inorganic Lab (1)
 - 10054, General and Elementary Organic Chemistry (5)
- CS 10051, Introduction to Computer Science (4)
- GEOL 11040, Earth Dynamics (3)
 - 11041, Earth Dynamics Lab (1)
 - 11042, Earth History (3)
 - 11043, Earth History Lab (1)
 - 21062, Environmental Geology (3)
 - 21080, Oceanography (3)
- PHY 11030, Seven Ideas that Shook the Universe (3)
 - 13001, General College Physics I (5)
 - 13002, General College Physics II (5)
 - 13011, College Physics I (3)
 - 13012, College Physics II (3)
 - 21430, Frontiers in Astronomy (3)
- PSCI 11660, Physical Science (3)
 - 11661, Physical Science (3)

VI. Diversity 0-3

Required: two courses

The selection of these two courses is subject to the following constraints.

- 1.) One course must be selected from the courses marked with a "D" in section III or IV above. This course may not be from the major department.
- 2.) The second course may be selected from either the courses marked with a "D" in section III or IV above or from the full list of diversity courses on Pages 81-83. This course may be from the major department, but if so it might not apply toward the Humanities, Fine Arts or Social Sciences.
- 3.) One of the above two courses must address domestic (U.S.) issues. These courses are marked with an asterisk (*). The other course must address global issues. These courses are not marked with an asterisk (*).

VII. US 10001, University Orientation	1
TOTAL	45

DISCIPLINARY FIELDS OF CONCENTRATION*

Students pursuing the B.S. degree are required to study a foreign language or American Sign Language on at least the elementary level (8 hours of coursework or the equivalent in proficiency). A particular field of concentration may require that students study one of the several modern languages that contain large scientific literatures (usually French, German or Russian). Even when particular languages are not specified, students should consult the department responsible for the field of concentration before choosing a language to study. This consultation is especially important for students who plan to pursue graduate work or a professional career in the field or a related area.

Within the field of concentration, no more than 64 hours may be required in a single department, and students may take no more than 64 hours for credit in a single department. If 64 hours are taken in one department, no more than 16 hours may be taken in any one other department. A B.S. candidate must earn a cumulative GPA of at least 2.00 in all work taken in the field of concentration and a 2.00 cumulative average in work within that department in which the most hours are required.

*See Page 103 for a list of disciplinary fields of concentration.

Anthropology

(see also B.A. program)

ANTH 18210, Intro. to Cultural Anthropology	3
18420, Intro. to Archaeology	3
38630, Prin. of Biological Anthropology	3
38480, Archaeological Analysis	3
38490, Quantitative Anthropology	3
Upper-division ANTH electives	12
CHEM 10060, 10061, General Chemistry I, II	8
10062, 10063, Gen. Chemistry Lab I, II	2
CS 10061, Intro. to Computer Programming	3
MATH 11022, Trigonometry*	2
12002, Analytic Geometry and Calculus I	5
Choose one from:	3
ANTH 38050, Theory in Cultural Anthropology (3)	
48212, Kinship and Social Organization (3)	
Choose one from:	3
ANTH 48410, Stone Age Archaeology (3)	
48420, Archaeology of North America (3)	
48440, Prehistory: Ohio (3)	
Choose one from:	3

- ANTH 48810, Human Paleontology (3)
- 48820, Human Musculo-Skeletal System (3)
- 48830, Human Behavioral Ecology and Evolution (3)
- 48840, Natural Selection in Perspective (3)

**Note: MATH 11022 fills prerequisite requirements for MATH 12002. Students with sufficient background should bypass this course.*

Student elects either biology (biological anthropology) or geology/geography (archaeology) concentration:

Biological Anthropology

- BSCI 10110, Biological Diversity 4
- 10120, Biological Foundations 4
- 30156, Elements of Genetics 3
- 40163, Organic Evolution 3
- Choose one from:** 4
- 30171, General Microbiology (4)
- 30518, Vertebrate Anatomy (4)
- 40430, General Physiology (4)

18

Archaeology

- GEOG 17063, World Geography 3
- 29160, Introduction to Maps and Map Analysis 3
- GEO 11040, Earth Dynamics 3
- 11041, Earth Dynamics Lab 1
- Plus one of the following:** 3-4
- GEOG 39161, Intro to Cartography (3)
and
- 39162, Intro to Cartography Lab (1)
- 49080, Advanced Geographical Information
Systems (3)
- 49165, GeoMapping (3)
- Choose one from:** 3-4
- GEO 21061, Glacial Geology (3)
- 23063, Mineralogy (4)
- 32066, Geomorphology (4)

16-18

TOTAL 72-74

Applied Mathematics

- CS 10051, Intro. to Computer Science 4
- 23021, Intro. to Object-Oriented Programming 3
- MATH*12002, Analytic Geometry and Calculus I 5
- 12003, Analytic Geometry and Calculus II 5
- 21001, Linear Algebra with Applications 3

- 22005, Analytic Geometry and Calculus III 3
 - 32044, Intro. to Ordinary Differential Equations 3
 - 40011, Intro. to Probability Theory and Applications . . . 3
 - 40012, Intro. to Statistical Concepts 3
 - 41021, Theory of Matrices 3
 - 42031, Mathematical Models and Dynamical Systems . . 3
 - 42091, Seminar: Modeling Projects 3
 - 42201, Introduction to Numerical Computing I 3
 - 42202, Introduction to Numerical Computing II 3
 - PHY 23101, Gen. Univ. Physics I 5
 - 23102, Gen. Univ. Physics II 5
- plus one of the following concentrations 15-16**

Applied Mathematics

- MATH 42041, Advanced Calculus 3
- 42045, Intro to Partial Differential Equations 4
- 42048, Intro. to Complex Variables 3
- **Allied area electives 6

Computational Mathematics

- CS 33001, Data Structures 3
- MATH 31011, Discrete Mathematics 3
- **Allied area electives 9

Probability and Statistics

- MATH 40051, Topics in Probability Theory and
Stochastic Processes 3
- Choose one from:** 3
- MATH 40041, Statistical Methods for Experiments (3)
- 40042, Sampling Theory (3)
- **Allied area electives 9

TOTAL 72-73

**MATH 12001, which is a prerequisite for MATH 12002, should be bypassed by students with sufficient background.*

***Selected from approved upper-division courses for majors in BSCI, CHEM, CS, MATH or PHY in consultation with the student's major adviser.*

Biology

(see also B.A. program)

Also see "Note" under "Biological Sciences" entry in "Courses of Study" section of this Catalog.

Core Courses

BSCI	10110, Biological Diversity	4
	10120, Biological Foundations	4
	20140, Cell Biology	4
	30156, Elements of Genetics	3
	30360, General Ecology	4
	40163, Organic Evolution	3
	40191, Senior Seminar	1
	40600, Writing in Biology	1
CHEM	10060, 10061, General Chemistry I, II	8
	10062, 10063, General Chemistry Lab I,II	2
MATH	*12002, Analytic Geometry and Calculus I	5
	Choose one from:	4
CHEM	20481, Basic Organic Chemistry (4)	
	30481, Organic Chemistry (4)	
	**Choose one from:	2
CHEM	20482, Basic Organic Chemistry (2)	
	30475, Organic Chemistry Lab (2)	
	30482, Organic Chemistry (2)	
	Choose one from:	3-5
MATH	12003, Analytic Geometry and Calculus II (5)	
	30011, Basic Probability and Statistics (3)	
	Plus 32 hours in one of the following concentrations	32
	TOTAL	80-82

Molecular and Cellular Concentration

	Required courses	15
BSCI	30171, General Microbiology	4
	40142, Bioenergetics	3
	40143, Eukaryotic Cell Biology	3
	40158, Molecular Biology	3
	40159, Molecular Biology Laboratory	2
	Guided biology and science electives	17
BSCI	30267, Plant Physiology (4)	
	30519, Vertebrate Embryology and Developmental Anatomy (4)	
	40174, Immunology (3)	
	40196, Individual Investigation (1-3)	
	40276, Plant Taxonomy (4)	
	40363, Microbial Ecology (3)	
	40430, General Physiology (4)	
	40432, Endocrinology (3)	
	40433, Mammalian Physiology I (3)	
	40434, Mammalian Physiology II (3)	
	40435, Reproductive Physiology of Mammals (3)	
	40436, Reproductive Physiology Laboratory (1)	
	40439, Environmental Physiology (4)	
	40444, Mammalian Physiology Laboratory (1)	

	40445, Mammalian Physiology Laboratory II (1)	
	40517, Histology (3)	
CHEM	20482, Basic Organic Chemistry (2)	
	or	
	30482, Organic Chemistry (2)	
	30475, Organic Chemistry Laboratory (2)	
	30476, Organic Chemistry Laboratory (2)	
PHY	13001, General College Physics I (5)	
	or	
	23101, General University Physics I (5)	
	13002, General College Physics II (5)	
	or	
	23102, General University Physics II (5)	
	Total	32

Organismal Concentration

	Required courses	20
BSCI	30171, General Microbiology	4
	Choose one from:	4
BSCI	20560, Invertebrate Zoology (4)	
	30580, Entomology (4)	
	Choose one from:	4
BSCI	30582, Ornithology (4)	
	40556, Vertebrate Zoology (4)	
	Choose one from:	4
	40275, Systematic Botany (4)	
	40276, Plant Taxonomy (4)	
	Choose one from:	4
	30267, Plant Physiology (4)	
	40430, General Physiology (4)	
	Guided biology and science electives	12
BSCI	30519, Vertebrate Embryology and Developmental Anatomy (4)	
	40170, Stream Biology (3)	
	40196, Individual Investigation (1-3)	
	40269, Biology of the Algae (4)	
	40272, Plant Anatomy (4)	
	40277, Morphology of Lower Plants (4)	
	40280, Palynology and Paleocology (4)	
	40364, Limnology (4)	
	40433, Mammalian Physiology I (3)	
	and	
	40444, Mammalian Physiology Laboratory I (1)	
	40434, Mammalian Physiology II (3)	
	and	
	40445, Mammalian Physiology Laboratory II (1)	
	40435, Reproductive Physiology of Mammals (3)	
	and	
	40436, Reproductive Physiology Laboratory (1)	

40517, Histology (3)	
Any other 30000- or 40000-level BSCI course (2-6)	
No more than 4 hours from the list below:	
Chem 20482, Basic Organic Chemistry (2)	
or	
30482, Organic Chemistry (2)	
30475, Organic Chemistry Laboratory (2)	
30476, Organic Chemistry Laboratory (2)	
PHY 13001, General College Physics I (5)	
or	
23101, General University Physics I (5)	
13002, General College Physics II (5)	
or	
23102, General University Physics II (5)	
Total	32

*MATH 12001, which is a prerequisite for MATH 12002, should be bypassed by students with sufficient background.

**CHEM 30284 may be substituted for the second organic chemistry course requirement with approval of the major adviser.

Botany

Also see "Note" under "Biological Sciences" entry in "Courses of Study" section of this Catalog.

BSCI 10110, Biological Diversity	4
10120, Biological Foundations	4
20140, Cell Biology	4
20275, Local Flora	4
30156, Elements of Genetics	3
30171, General Microbiology	4
30267, Plant Physiology	4
30360, General Ecology	4
40163, Organic Evolution	3
40272, Plant Anatomy	4
40275, Systematic Botany	4
40277, Morphology of Lower Plants	4
plus 4 hours upper-division Botany electives	4
CHEM 10060, 10061, General Chemistry I, II	8
10062, 10063, General Chemistry Lab I, II	2
30475, 30476, Organic Chemistry Lab	4
MATH *12002, 12003, Analytic Geometry and Calculus I, II	10
Choose one pair from:	6
CHEM 20481, 20482, Basic Organic Chemistry (6)	
30481, 30482, Organic Chemistry (6)	
TOTAL	80

*MATH 12001, which is a prerequisite for MATH 12002, should be bypassed by students with sufficient background.

Chemistry

(see also B.A. program)

CHEM 30101, Quantitative Analysis	2
30475, 30476, Organic Chemistry Lab	4
30481, 30482, Organic Chemistry	6
MATH*12002, 12003, Analytic Geometry and Calculus I, II	10
Choose either	10
CHEM 10060, 10061, General Chemistry I, II (8)	
10062, 10063, General Chemistry Lab I, II (2)	
or	
10960, 10961, Honors General Chemistry (10)	

Choose one concentration:

Biological Chemistry Concentration

BSCI 10120, Biological Foundations	4
20140, Cell Biology	4
30156, Elements of Genetics	3
30171, General Microbiology	4
CHEM 30100, Aqueous Equilibrium	2
30102, Solution Chemistry Lab	2
40245, Biochemical Foundations of Medicine	4
40248, Advanced Biological Chemistry	3
40251, Advanced Biological Chemistry Lab	2
40263, Physical Biochemistry	3
40567, Basic Concepts of Physical Chemistry	4
PHY 13001, 13002, General College Physics I, II	10
Choose 4 hours from the following:	4
BSCI 40143, Eukariotic Cell Biology (3)	
CHEM 30113, Instrumental Analysis (4)	
40361, Intermediate Inorganic Chemistry (2)	
40362, Intermediate Inorganic Chemistry (2)	
40796, Individual Investigation (1-2)	
or approved upper-division Chemistry electives	

Chemistry Concentration

(This program meets the minimum requirements for the American Chemical Society certification. For information with regard to the five-year "Industrial Co-op" option, consult the Department of Chemistry.)

CHEM 30100, Aqueous Equilibrium	2
30102, Solution Chemistry Lab	2
30113, Instrumental Analysis	4
30284, Introductory Biological Chemistry	4
40361, 40362, Intermediate Inorganic Chemistry	4
40364, Intermed. Inorganic Chem Lab.	1

40555, 40556, Elem. Physical Chemistry . . . . .	.6
40557, Physical Chemistry Lab . . . . .	.2
plus 4 hours from approved CHEM 40000-level courses. . . . .	.4
PHY 23101, 23102, Gen. University Physics I, II	10
MATH 22005, Analytic Geometry & Calculus III . . . . .	.3

Materials Chemistry Concentration

(Individual investigation is strongly encouraged for students in this concentration.)

CHEM 30050, Introduction to Materials Chemistry . . . . .	.2
30113, Instrumental Analysis . . . . .	.4
30284, Introductory Biological Chemistry . . . . .	.4
40053, Materials Chemistry Laboratory . . . . .	.2
40352, Inorganic Materials Chemistry . . . . .	.3
40361, 40362, Intermediate Inorganic Chemistry . . . . .	.4
40364, Intermediate Inorganic Chemistry Lab . . . . .	.1
40451, Organic Materials Chemistry . . . . .	.3
40555, 40556, Elementary Physical Chemistry . . . . .	.6
40557, Physical Chemistry Lab . . . . .	.2
MATH 22005, Analytic Geometry and Calculus III . . . . .	.3
PHY 23101, General University Physics I . . . . .	.5
23102, General University Physics II . . . . .	.5
TOTAL	74-81

**MATH 12001, which is a prerequisite for MATH 12002, should be bypassed by students with sufficient background.*

Computer Science

MATH*12002, 12003, Analytic Geometry and Calculus I, II . . .	10
21001, Linear Algebra With Applications . . . . .	.3
CS 10051, Intro. to Computer Science . . . . .	.4
23021, Introduction to Object-Oriented Programming . . .	.3
31011, Discrete Mathematics . . . . .	.3
33001, Data Structures . . . . .	.3
33003, Computer Organization and Assembly Language . . .	.3
33006, Social and Ethical Issues in Computing . . . . .	.3
43101, Structure of Programming Languages . . . . .	.3
43111, Structure of Compilers . . . . .	.3
43201, Operating Systems . . . . .	.3
45101, Computer Architecture . . . . .	.3
46101, Design and Analysis of Algorithms . . . . .	.3
plus approved 40000-level CS courses	12
plus approved upper-division CS courses** . . . . .	.8

<i>Choose one from:</i>	3
CS 42201, Introduction to Numerical Computing I (3)	
46201, Automata, Formal Languages and Theory of Computability (3)	
TOTAL	70

**MATH 12001, which is a prerequisite for MATH 12002, should be bypassed by students with sufficient background.*

***With the adviser's prior permission, computer-related upper-division courses, normally from MATH, PHY or M&IS, may replace some of these hours.*

Conservation

BSCI 10110, Biological Diversity . . . . .	.4
10120, Biological Foundations . . . . .	.4
20275, Local Flora . . . . .	.4
20560, Invertebrate Zoology . . . . .	.4
30156, Elements of Genetics . . . . .	.3
30360, General Ecology . . . . .	.4
40439, Environmental Physiology . . . . .	.4
GEOL 11040, 11041, Earth Dynamics and Lab . . . . .	.4
21062, Environmental Geology . . . . .	.3
32066, Geomorphology . . . . .	.4
CHEM 10060, 10061, General Chemistry I, II . . . . .	.8
10062, 10063, General Chemistry Lab I, II . . . . .	.2
MATH 12001, Algebra and Trigonometry . . . . .	.4
COMM 15000, Theory and Practice of Oral Discourse . . . . .	.3
ENG 20002, Introduction to Technical Writing . . . . .	.3

Select any 11 hours from these groups: 11

Botany Group

BSCI 30274, Forestry (2)	
40269, Biology of the Algae (4)	
40275, Systematic Botany (4)	
40276, Plant Taxonomy (4)	
40277, Morphology of Lower Plants (4)	

Ecology Group

BSCI 40163, Organic Evolution (3)	
40170, Stream Biology (3)	
40363, Microbial Ecology (3)	
40364, Limnology (4)	
40369, Lake Management (3)	

Zoology Group

BSCI 30580, Entomology (4)	
30582, Ornithology (4)	
40515, Animal Behavior (3)	
40525, Wildlife Resources (3)	
40556, Vertebrate Zoology (4)	

	Select 9 hours:	9
GEOG	21062, Physical Geography (3)	
	39080, Introduction to Geographical Information Systems (3)	
	41073, Conservation of Natural Resources (3)	
	41082, Geography of Soils (3)	
	49080, Advanced Geographical Information Systems (3)	
	Choose one from:	3-4
CS	10051, Intro. to Computer Science (4)	
GEOG	39002, Statistical Methods in Geography (3)	
	TOTAL	81

Students who intend to enter a Master of Science (M.S.) program should take BSCI 20140, Math 12002 and the organic chemistry requirements of the B.S. in biology. An M.A. program may not require these. Upper-division elective hours should be used to specialize in an area of interest.

French Translation

It is strongly recommended that students in this program take ECON 22060 and 22061 as part of their Social Sciences requirement, and that they fulfill their Basic Sciences requirement with BSCI 10001, CHEM 10050 and GEOL 21062.

Prerequisites:

FR 13201, 13202, Elementary French I, II (8)

FR 23201, 23202, Intermediate French I, II (6)

Any portion of the prerequisites may be waived by demonstrated proficiency.

I. Language Core Requirements: . . . . .	.21
FR 33211, French Conversation . . . . .	.3
33212, French Composition . . . . .	.3
33215, French Phonetics & Diction . . . . .	.3
33421, French Civilization . . . . .	.3
Any FR 30000-level literature course . . . . .	.3
Choose one from: . . . . .	.3
FR 43213, French Composition Advanced (3)	
43216, Contemporary French Culture (3)	
Any FR 40000-level literature course . . . . .	.3
II. Translation/Business Language Requirements: . . . . .	.22
FR 33240, Conversation for Business & Special Purposes . . . . .	.3
43240, Business and Special Texts . . . . .	.3
MCLS 30230, Approaches to Translation . . . . .	.3
FR 33231, Translation Practice . . . . .	.1
43230, Advanced Translation Practice . . . . .	.3
MCLS 40420, Foreign Language and Culture Studies . . . . .	.3
Choose one from: . . . . .	.3
ENG 20002, Introduction to Technical Writing (3)	
30063, Adv. Business and Professional Writing (3)	

	Choose one from:	3
M&IS	24070, Principles of Systems Development (3)	
	24053, Intro. to Computer Applications (3)	
CS	10001, Computer Literacy (3)	
	10061, Intro. to Computer Programming (3)	
	<i>The courses listed under Section II are on a two-year rotation. Business language courses are offered in one academic year, and translation courses in the other. Majors should always enroll in the courses that are currently being offered. MCLS 30230 and FR 33231 are taken concurrently.</i>	

III. Subject Area Specialty39

The Subject Area Specialty is a departmentally approved coherent sequence of courses in one or more other disciplines (i.e., not in the Department of Modern and Classical Language Studies). In order to be approved, the Subject Area Specialty must include courses in an area or areas that are currently marketable, such as business, legal studies, international relations, political science, computer science, chemistry, physics or other "hard" sciences.

The Subject Area Specialty may include up to 17 hours of a different language in the sequence through composition/conversation. It may also optionally include MCLS 23217, The Francophone Experience.

TOTAL	82
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Geology

(see also B.A. program)

GEOL 11040, Earth Dynamics3
11041, Earth Dynamics Lab1
11042, Earth History . . . . .	.3
11043, Earth History Lab . . . . .	.1
23063, Mineralogy . . . . .	.4
31070, Petrology . . . . .	.4
31080, Structural Geology . . . . .	.4
32066, Geomorphology . . . . .	.4
34061, Invertebrate Paleontology . . . . .	.4
41092, Summer Field Camp . . . . .	.6
44070, Principles of Stratigraphy . . . . .	.4
plus 9 upper-division hours . . . . .	.9
CHEM 10060, 10061, General Chemistry I, II . . . . .	.8
10062, 10063, General Chemistry Lab I, II . . . . .	.2
MATH 12002, Analytic Geom. and Calculus I . . . . .	.5
30011, Basic Probability and Statistics . . . . .	.3
PHY 13001, 13002, Gen. College Physics I, II . . . . .	.10
Choose one from: . . . . .	.3
GEOL 43040, Principles of Geochemistry (3)	
41025, General Geophysics (3)	

	<i>Choose one from:</i>	3-5
MATH	12003, Analytic Geom. and Calculus II (5)	
	21001, Linear Algebra (3)	
	<i>Choose one from:</i>	4
BSCI	10120, Biological Foundations (4)	
	20560, Invertebrate Zoology (4)	
TOTAL		85-87

The Subject Area Specialty is a departmentally approved coherent sequence of courses in one or more other disciplines (i.e., not in the Department of Modern and Classical Language Studies). In order to be approved, the Subject Area Specialty must include courses in an area or areas that are currently marketable, such as business, legal studies, international relations, political science, computer science, chemistry, physics or other "hard" sciences.

The Subject Area Specialty may include up to 17 hours of a different language in the sequence through composition/conversation. It may also optionally include MCLS 21417, Multiculturalism in Today's Germany.

TOTAL 82

German Translation

It is strongly recommended that students in this program take ECON 22060 and 22061 as part of their Social Sciences requirement, and that they fulfill their Basic Sciences requirement with BSCI 10001, CHEM 10050 and GEOL 21062.

Prerequisites:

GER 11201, 11202, Elementary German I, II (8)

GER 21201, 21202, Intermediate German I, II (6)

Any portion of the prerequisites may be waived by demonstrated proficiency.

I. Language Core Requirements:	21
GER 31201, Intensive German Grammar . . . . .	.3
31211, German Composition/Conversation . . . . .	.3
31215, German Phonetics & Diction . . . . .	.3
31303, Introduction to German Literature . . . . .	.3
31421, German Civilization . . . . .	.3
41211, Advanced German Comp./Conversation . . . . .	.3
41216, Contemporary German Culture . . . . .	.3
II. Translation/Business Language Requirements	22
GER 31240, Conv. for Bus. & Special Purposes . . . . .	.3
41240, Business and Special Texts . . . . .	.3
MCLS 30230, Approaches to Translation . . . . .	.3
GER 31231, Translation Practice . . . . .	.1
41230, Advanced Translation Practice . . . . .	.3
MCLS 40420, Foreign Lang. & Culture Studies . . . . .	.3
<i>Choose one from:</i>	3
ENG 20002, Introduction to Technical Writing (3)	
30063, Adv. Business and Professional Writing (3)	
<i>Choose one from:</i>	3
M&IS 24070, Principles of Systems Development (3)	
24053, Intro. to Computer Applications (3)	
CS 10001, Computer Literacy (3)	
10061, Intro. to Computer Programming (3)	
<i>The courses offered under Section II are on a two-year rotation. Business language courses are offered in one academic year, and translation courses in the other. Majors should always enroll in the courses that are currently being offered. MCLS 30230 and GER 31231 are taken concurrently.</i>	
III. Subject Area Specialty	39

Mathematics

(see also B.A. program)

MATH*12002, 12003, Analytic Geometry and Calculus I, II . . .	10
21001, Linear Algebra with Applications	3
22005, Analytic Geometry and Calculus III	3
41001, 41002, Introduction to Modern Algebra I, II	6
41021, Theory of Matrices	3
42001, 42002, Introduction to Analysis I, II	6
CS 10051, Introduction to Computer Science	4
PHY 23101, General University Physics I	5
plus 9 additional hours	9
<i>of approved 40000-level MATH or CS courses</i>	
plus 18 additional hours	18
<i>of approved coursework from upper-division MATH courses; or from upper-division courses for majors in M&IS, BSCI, CHEM, CS, ECON, GEOL or PHY; or from PHIL 31045, 41035, 41045</i>	
TOTAL	67

*MATH 12001, which is a prerequisite for MATH 12002, should be bypassed by students with sufficient background.

Physics

(see also B.A. program)

PHY 23001, 23002, 23003, Univ. Physics Frontiers I, II, III .	10
35101, Mechanics I	3
36001, Introductory Modern Physics	3
45201, Electromagnetic Theory I	3
45301, Thermodynamics	3
46101, Quantum and Atomic Physics	4
MATH*12002, 12003, Analytic Geometry and Calculus I, II . .	10

21001, Linear Algebra with Applications 3
 22005, Analytic Geometry and Calculus III 3
 32044, Introduction to Ordinary Differential Equations . . 3
 CHEM 10060, 10061, General Chemistry I, II 8
 10062, 10063, General Chemistry Lab I, II 2
plus an option in one of the following concentrations 30

Physics Concentration

A. General Physics Option

PHY 30020, Intermediate Physics Lab 2
 35102, Mechanics II 3
 40020, Advanced Physics Lab 2
 40096, Individual Investigation 2
 45202, Electromagnetic Theory II 3
 46301, Introduction to Nuclear Physics 3
 46401, Introduction to Solid State 3
 MATH 42045, Introduction to Partial Differential Equations . . . 4
 Physics electives** 8

B. Computer Hardware Systems Option

CS 10061, Introduction to Computer Programming 3
 PHY 12411, Introduction to Computer Hardware 3
 30020, Intermediate Physics Lab 2
 32511, Electronics 4
 35611, Microprocessor-Based Design I 3
 40020, Advanced Physics Lab 2
 42513, Computer Systems Design 3
 45612, Microprocessor-Based Design II 3
 Upper-division physics electives** 7

C. Applied Physics Option

PHY***32511, Electronics 4
 *** 35402, Scientific Computing 2
 ***** 42020, Applied Physics Lab 2+2
 42512, General Electronic Instrumentation 4
 45501, Fundamentals of Modern Optics 3
 MATH 42045, Introduction to Partial Differential Equations . . . 4
 Physics electives* 9

TOTAL 85

The general physics option is designed to prepare physics majors for further study at the graduate level. The emphasis of the computer hardware systems option is on preparing physics majors for industrial work that involves specifying, implementing and using computer systems for measurement and control processes. The applied physics option emphasizes applications of physics, particularly in modern optics, including electro-optic devices and lasers.

**MATH 12001 is a prerequisite which students with sufficient background should bypass. MATH 12001 may be waived by obtaining*

permission of the Department of Mathematics or by passing the placement exam.

***These courses may be replaced with physics-related electives selected from mathematics or the natural sciences with adviser's permission.*

****Proficiency in a high-level computer language is required. Students may obtain a waiver of this requirement by obtaining permission from the Department of Physics or by obtaining a passing grade in CS 10061.*

*****PHY 32511 and 35402 may be replaced by PHY 12411 and PHY 35611 with adviser's permission.*

******PHY 42020 may be replaced by PHY 30020 and PHY 40020 with adviser's permission.*

Physics Interdisciplinary Concentration

A. Chemistry Option

PHY 30020, Intermediate Physics Lab 2
 32511, Electronics 4
 40020, Advanced Physics Lab 2
 Physics electives 6-7
 CHEM 30100, Aqueous Equilibrium 2
 30101, Quantitative Analysis 2
 30102, Solution Chemistry Lab 2
 30475, Organic Chemistry Lab 2

Plus 4 hours from the following: 4

CHEM 20481, Basic Organic Chemistry (4)
 30481, Organic Chemistry (4)

Plus 3-4 hours from the following: 3-4

CHEM*20482, Basic Organic Chemistry (2)
 * 30482, Organic Chemistry (2)
 30476, Organic Chemistry Lab (2)
 30113, Instrumental Analysis (4)
 30284, Introductory Biological Chemistry (4)

- ** 40555, Elementary Physical Chemistry (3)
- ** 40556, Elementary Physical Chemistry (3)
- ** 40567, Basic Concepts of Physical Chemistry (4)

B. Biological Sciences Option

PHY 30020, Intermediate Physics Lab 2
 40020, Advanced Physics Lab 2
 BSCI 10110, Biological Diversity 4
 10120, Biological Foundations 4
 20140, Cell Biology 4
 30156, Elements of Genetics 3
 40163, Organic Evolution 3

40430, General Physiology 4
Plus 4 hours from the following: 4
 PHY***32511, Electronics (4)
 MATH 42045, Introduction to Partial Differential Equations (4)
 CHEM 20481, Basic Organic Chemistry (4)
 30481, Organic Chemistry (4)
Recommended additional courses:
 **** 30284, Introductory Biological Chemistry (4)
 **** 30475, Organic Chemistry Lab (2)
 CS 10061, Introduction to Computer Programming (3)
C. Applied Mathematics and Computer Science Option
 PHY 30020, Intermediate Physics Lab 2
 40020, Advanced Physics Lab 2
 Physics electives 4
 CS 10051, Introduction to Computer Science 4
 23021, Introduction to Object-Oriented Programming . 3
 33001, Data Structures 3
 Upper-division Computer Science electives 6
Plus 6 hours from the following: 6
 MATH 31011, Discrete Mathematics (3)
 CS 42201, Introduction to Numerical Computing I (3)
 42202, Introduction to Numerical Computing II (3)
Recommended additional course:
 MATH 42045, Introduction to Partial Differential Equations (4)
D. Mathematics Option
 PHY 30020, Intermediate Physics Lab 2
 40020, Advanced Physics Lab 2
 Physics electives 6
 CS 10051, Introduction to Computer Science 4
 MATH 41001, Introduction to Modern Algebra I 3
 MATH 42001, Introduction to Analysis I 3
 42045, Introduction to Partial Differential Equations . . . 4
 40000-level Mathematics electives 6

TOTAL 85

The chemistry option is designed for students with a strong interest in both physics and chemistry who may wish to prepare for graduate study in chemical physics, or for work in a high-technology materials-related research and development laboratory. This program satisfies requirements for a minor in chemistry. The biological sciences option is designed for students with a strong interest in both physics and biological sciences who may wish to prepare for graduate study in biophysics, or for work in a biotechnology company. This program satisfies requirements for a minor in biological sciences. The emphasis of the applied mathematics and computer science option is on preparing physics majors to become computer professionals in scientific-ly oriented organizations. This program satisfies requirements for both a minor in applied mathematics and a minor in computer science. Physics majors who may wish to become part of a

technical team in a research and development laboratory should consider the mathematics option. This program satisfies requirements for a minor in mathematics.

**Students may complete either organic chemistry sequence, CHEM 20481 and 20482 or CHEM 30481 and 30482.*

***CHEM 40555 covers primarily thermodynamics; many physics majors may benefit more from choosing CHEM 40556 (prerequisite CHEM 40555 or PHY 45301). Students who choose CHEM 40567 should not also take CHEM 40555 or 40556.*

****PHY 32511 may be replaced by other upper-level physics courses with adviser's permission.*

*****CHEM 20481 or 30481 is a prerequisite for CHEM 30284 and a corequisite for CHEM 30475.*

Courses that do not count toward the major:

- PHY 11030, Seven Ideas that Shook the Universe (3)
- 21040, Physics in Entertainment and the Arts (3)
- 21430, Frontiers in Astronomy (3)
- 24001, Astronomy (3)
- 32551, Applied Engineering Mechanics (3)

Russian Translation

It is strongly recommended that students in this program take ECON 22060 and 22061 as part of their Social Sciences requirement, and that they fulfill their Basic Sciences requirement with BSCI 10001, CHEM 10050 and GEOL 21062.

Prerequisites:

RUSS 12201, 12202, Elementary Russian I, II (8)

RUSS 22201, 22202, Intermediate Russian I, II (6)

Any portion of the prerequisites may be waived by demonstrated proficiency.

I. Language Core Requirements: 21

RUSS 32207, Russian Conversation 2
 32211, Composition & Conversation 3
 32215, Russian Phonetics & Diction 3
 32303, Modern Writers 3
 32421, Russian Civilization 4
 42211, Advanced Comp./Conversation 3
 Any RUSS 30000-40000-level literature course 3

II. Translation/Business Language Requirements 22

RUSS 32240, Conv. for Bus. & Spec. Purposes 3
 42240, Business and Special Texts 3
 MCLS 30230, Approaches to Translation 3
 RUSS 32231, Translation Practice 1
 42230, Advanced Translation Practice 3

MCLS 40420, Foreign Lang. & Culture Studies 3
Choose one from: 3
 ENG 20002, Introduction to Technical Writing (3)
 30063, Adv. Business and Professional Writing (3)
Choose one from: 3
 M&IS 24070, Principles of Systems Development (3)
 24053, Intro. to Computer Applications (3)
 CS 10001, Computer Literacy (3)
 10061, Intro. to Computer Programming (3)

The courses offered under Section II are on a two-year rotation. Business language courses are offered in one academic year and translation courses in the other. Majors should always enroll in the courses that are currently being offered. MCLS 30230 and RUSS 32231 are taken concurrently.

III. Subject Area Specialty 39

The Subject Area Specialty is a departmentally approved coherent sequence of courses in one or more other disciplines (i.e., not in the Department of Modern and Classical Language Studies). In order to be approved, the Subject Area Specialty must include courses in an area or areas that are currently marketable, such as business, legal studies, international relations, political science, computer science, chemistry, physics or other "hard" sciences.

The Subject Area Specialty may include up to 17 hours of a different language in the sequence through composition/conversation. It may also optionally include MCLS 22217, Diversity in Today's Russia.

TOTAL 82

Spanish Translation

It is strongly recommended that students in this program take ECON 22060 and 22061 as part of their Social Sciences requirement, and that they fulfill their Basic Sciences requirement with BSCI 10001, CHEM 10050 and GEOL 21062.

Prerequisites:

SPAN 18201, 18202, Elementary Spanish I, II (8)

SPAN 28201, 28202, Intermediate Spanish I, II (6)

Any portion of the prerequisites may be waived by demonstrated proficiency.

I. Language Core Requirements: 21

SPAN 38211, Spanish Grammar & Composition 3
 38213, Spanish Reading & Conversation 3
 38215, Spanish Phonetics & Diction 3
 38421, Civilization of Spain 3
 38424, Culture & Civ. of Latin America 3
 48215, Spanish Composition—Advanced 3
 Any SPAN 30000-40000-level literature course 3

II. Translation/Business Language Requirements: 22

SPAN 38240, Conv. for Business & Special Purposes 3
 48240, Business and Special Texts 3
 MCLS 30230, Approaches to Translation 3
 SPAN 38231, Translation Practice: Spanish 1
 48230, Advanced Translation Practice 3
 MCLS 40420, Foreign Lang. & Culture Studies 3
Choose one from: 3
 ENG 20002, Introduction to Technical Writing (3)
 30063, Adv. Business and Professional Writing (3)
Choose one from: 3
 M&IS 24070, Principles of Systems Development (3)
 24053, Intro. to Computer Applications (3)
 CS 10001, Computer Literacy (3)
 10061, Intro. to Computer Programming (3)

The courses offered under Section II are on a two-year rotation. Business language courses are offered in one academic year and translation courses in the other. Majors should always enroll in the courses that are currently being offered. MCLS 30230 and SPAN 38231 are taken concurrently.

III. Subject Area Specialty 39

The Subject Area Specialty is a departmentally approved coherent sequence of courses in one or more other disciplines (i.e., not in the Department of Modern and Classical Language Studies). In order to be approved, the Subject Area Specialty must include courses in an area or areas that are currently marketable, such as business, legal studies, international relations, political science, computer science, chemistry, physics or other "hard" sciences.

The Subject Area Specialty may include up to 17 hours of a different language in the sequence through composition/conversation. It may also optionally include MCLS 28405, The Spanish Experience.

TOTAL 82

Zoology

(Also see "Note" under "Biological Sciences" entry in "Courses of Study" section of this Catalog.)

BSCI 10110, Biological Diversity 4
 10120, Biological Foundations 4
 20140, Cell Biology 4
 30519, Vertebrate Embrol/Dev. Anat. 4
 30156, Elements of Genetics 3
 30171, General Microbiology 4
 30360, General Ecology 4
 40163, Organic Evolution 3
 40430, General Physiology 4
 plus 4 upper-division Zoology electives 4

CHEM	10060, 10061, General Chemistry I, II	8
	10062, 10063, General Chemistry Lab I, II	2
	30475, 30476, Organic Chemistry Lab	4
MATH*	12002, 12003, Analytic Geometry and Calculus I, II . . .	10
	Choose one from:	4
BSCI	20560, Invertebrate Zoology (4)	
	30518, Vertebrate Anatomy (4)	
	Choose one from:	4
BSCI	30580, Entomology (4)	
	30582, Ornithology (4)	
	40556, Vertebrate Zoology (4)	
	Choose one from:	4
BSCI	40433, 40444, Mammalian Physiology I and Lab (4)	
	40434, 40445, Mammalian Physiology II and Lab (4)	
	Choose one pair from:	6
CHEM	20481, 20482, Basic Organic Chem. I, II (6)	
	30481, 30482, Organic Chemistry (6)	
TOTAL		80

*NOTE: MATH 12001 is a prerequisite course that students with appropriate preparation should bypass.

THREE-PLUS-ONE PROGRAM

General Requirements

Students pursuing a Three-Plus-One program must earn 97 hours of credit in the university. Appropriate transfer credit from other institutions may be included in these 97 hours, but the students must complete at least 42 hours in residence at Kent State University, including the last 32 hours of the 97-hour requirement.

Students must have a GPA of 2.00 or better in all work taken at Kent State University. They must also complete with at least a 2.00 average all off-campus work taken to fulfill fourth-year requirements. In some fields, students may also be required to present other evidence of the satisfactory completion of the off-campus professional training.

Students must satisfy all degree requirements, including the B.S. General Requirements and field of concentration requirements, by a combination of credits earned at Kent State University and the professional school. The only exception is that the college's foreign language requirement is waived for students who successfully complete a Three-Plus-One program.

Medical Technology

The medical technology program consists of 97 semester hours of undergraduate study at Kent State University followed by 12 months of professional training at an approved hospital.

Students who wish to pursue their professional education in an accredited program other than the approved affiliates must obtain permission to do so from the National Accrediting Agency for Clinical Laboratory Sciences (NAACLS) and from the dean of the College of Arts and Sciences at Kent State University at least one semester before beginning such training.

Students must complete all coursework at Kent State University before beginning their clinical training. However, clinical training at an approved hospital affiliate is not an automatic event that occurs after completion of Kent State coursework. Students are required to make application with the hospital affiliates who then select appropriate student candidates through a highly competitive process. While there is often no required GPA for acceptance into a hospital training program, applicants with higher GPAs are given preference in the selection process. Selection of applicants for clinical training is based upon successful completion of all Kent State coursework, strong letters of reference and a solid interview with the hospital program admissions committee.

Because of the unique nature of this Three-Plus-One program, completion of the B.S. in medical technology is dependent upon a student's ability to secure placement with one of the hospital affiliates. The university does not assume responsibility or liability for completion of the major in cases of student dismissal from a hospital program or loss of hospital training sites due to program closures beyond university control. For their professional study, students register through Kent State University for the CLS courses taught in the hospital facility.

Students who successfully complete the clinical (professional study) year are eligible to take a certification examination such as those offered by the National Certification Agency for Medical Laboratory Personnel (NCA) and the Board of Registry of the American Society of Clinical Pathologists (ASCP). The Kent State University degree, however, is not contingent upon passing the Registry Examination.

Years 1-3

US	10001, University Orientation	1
BSCI	10110, Biological Diversity	4
	10120, Biological Foundations	4
	20140, Cell Biology	4
	30030, Human Physiology	4
	30050, Human Genetics	3
	30171, General Microbiology	4
	40174, Immunology	3
	40581, Animal Parasitology	4
CHEM	10060, 10061, Gen. Chemistry I, II	8
	10062, 10063, General Chemistry Lab I, II	2
	20481, Basic Organic Chemistry	4

30100, Aqueous Equilibrium	2
30101, Quantitative Analysis	2
30102, Solution Chemistry Lab	2
30284, Introductory Biological Chemistry	4
CS 10061, Introduction to Computer Programming	3
ENG 10001, 10002, College English I, II	6
MATH 12001, Algebra and Trigonometry	4
30011, Basic Probability & Statistics	3
PSYC 11762, General Psychology	3
SOC D*12050, Intro. to Sociology	3
Humanities and Fine Arts	9
<i>9 hours selected from B.S. General Requirements list.</i>	
<i>Note: One Humanities or Fine Arts course may be used to satisfy both a Liberal Education and Diversity Course Requirement.</i>	
Diversity	0-3
<i>Refer to the General Requirements for the B.S.</i>	
Universitywide electives	5
One of the following:	3
PSYC 30821, Psychology of Motivation (3)	
31773, Industrial Psychology (3)	
SOC 42563, Sociology of Health and Health Care (3)	
<hr/> 94-97	
Professional Study (4th year):	
CLS 49010, Clinical Microbiology: Theory	4
49011, Clinical Microbiology: Applications	4
49012, Clinical Immunology: Theory	1
49013, Clinical Immunology: Applications	1
49014, Clinical Mycology: Theory and Applications	1
49015, Clinical Parasitology: Theory and Applications	1
49020, Clinical Chemistry: Theory	4
49021, Clinical Chemistry: Applications	4
49022, Urinalysis: Theory	1
49023, Urinalysis: Applications	1
49030, Immunohematology: Theory	2
49031, Immunohematology: Applications	2
49032, Coagulation: Theory and Applications	1
49033, Clinical Hematology: Theory	2
49034, Clinical Hematology: Applications	2
49040, Topics in Lab Management	1
<hr/> 32 <hr/> TOTAL 126-129	

PREMEDICAL PROGRAMS

Program Requirements

Students pursuing a premedical program must complete all of the General Requirements for the degree elected. They must also complete all the requirements for the primary major or field of concentration. Students often choose to pursue the primary major in the biological sciences, chemistry or psychology; they may, however, pursue any major in the college along with the premedical program.

The first major must be in the College of Arts and Sciences. It is not necessary to have a major in the medically related sciences in order to be admitted to medical school, but it is necessary to complete the appropriate premedical program. Students who elect to design their own B.G.S. degree must include the appropriate premedical program within their degree program.

Students pursuing a B.G.S. or a primary major in a nonscience field should also seek advice from the premedical advisers in the Departments of Biological Sciences and Chemistry. Premedical program requirements are given below, along with recommended coursework that may be taken as elective coursework or as part of a primary major.

Predentistry	
BSCI 10120, Biological Foundations	4
20140, Cell Biology	4
CHEM 30475, 30476, Organic Chemistry Lab	4
MATH 12001, Algebra and Trigonometry	4
Choose Group One or Group Two:10	
Group One	
CHEM 10060, 10061, Gen. Chemistry I, II (4 each)	
10062, 10063, General Chemistry Labs I, II (1 each)	
Group Two	
CHEM 10960, 10961, Honors Gen. Chemistry (5 each)	
Choose one from:6	
CHEM 20481, 20482, Basic Organic Chemistry (6)	
30481, 30482, Organic Chemistry (6)	
Choose one from:10	
PHY 13001, 13002, Gen. College Physics I, II (10)	
23101, 23102, Gen. University Physics I, II (10)	
Choose two from:7-8	
BSCI 30156, Elements of Genetics (3)	
30171, General Microbiology (4)	
30518, Vertebrate Anatomy (4)	
30519, Vertebrate Embryol./Develop. Anatomy (4)	
40430, General Physiology (4)	
<hr/> TOTAL 49-50	

Some dental schools may also require the following strongly recommended courses: CHEM 30100, 30101, 30102, 30113, Quantitative Analysis; 30284, Introductory Biological Chemistry; MATH 12002, Analytic Geometry and Calculus I. Distributive requirements in the social sciences should be taken in the behavioral science areas (sociology and psychology).

Premedicine, Preosteopathy, Preveterinary Medicine

BSCI 10120, Biological Foundations	4
20140, Cell Biology	4
CHEM 30475, 30476, Organic Chemistry Lab	4
MATH*12002, Analytic Geometry and Calculus I	5
Choose Group One or Group Two:	10
Group One	
CHEM 10060, 10061, Gen. Chemistry I, II (4 each)	
10062, 10063, General Chemistry Labs I, II (1 each)	
Group Two	
CHEM 10960, 10961, Honors Gen. Chemistry (5 each)	
Choose two from:	7-8
BSCI 30156, Elements of Genetics (3)	
30171, General Microbiology (4)	
30518, Vertebrate Anatomy (4)	
30519, Vertebrate Embryol./Develop. Anatomy (4)	
40430, General Physiology (4)	
Choose one from:	6
CHEM 20481, 20482, Basic Organic Chemistry (6)	
30481, 30482, Organic Chemistry (6)	
Choose one from:	10
PHY 13001, 13002, General College Physics I, II (10)	
23101, 23102, General University Physics I, II (10)	
TOTAL	50-51

* MATH 12001, which is a prerequisite for MATH 12002, should be bypassed by students with sufficient background.

Some medical schools may also require the following strongly recommended courses: CHEM 40245, Biochemical Foundations of Medicine, or 40247, Principles of Biochemistry; MATH 30111, Basic Probability and Statistics. Distributive requirements in the social sciences should be taken in the behavioral science area (SOC 12050 plus 42563, Medical Sociology; PSYC 11762 plus 40111, Abnormal Psychology, recommended).

Veterinary Medicine. The current "Admission Guidelines" of The Ohio State University (OSU) College of Veterinary Medicine indicate that, in order to be eligible for "admission without condition," students pursuing the Kent State premed program should select BSCI 30156, Elements of Genetics, and 30171, General Microbiology, from among the biological sciences options and should add either CHEM 30284, Introductory Biological Chemistry, or 40247, Principles of Biochemistry, to the chemistry requirements above if neither is already being taken as part of the second major. In addition, OSU recommends coursework in economics, sociology and psychology to fulfill the social sciences requirement. Speech (communications), history, classical stud-

ies and/or comparative literature are recommended for the humanities. A course in statistics also is encouraged: MATH 30111, Basic Probability and Statistics, is recommended.

Bachelor of General Studies

General Requirements

The Bachelor of General Studies requires a total of 121 semester hours of successfully completed credits. In addition, 42 of those 121 hours must be at the upper-division (30000-40000) level. Students must complete the degree with at least a 2.00 accumulative average.

Students pursuing the B.G.S. must complete the university's Liberal Education, Diversity and Writing-Intensive Course Requirements as described on Pages 77-85 of this Catalog. Courses taken to satisfy the Social Sciences must be taken in at least two curricular areas (e.g., ANTH, ECON, etc.). Courses taken to satisfy the LERs should be carefully chosen to fit in with the overall B.G.S. program. University and college requirements apply to this degree.

Coursework Restrictions

All of the limitations on the applicability of credit described on Pages 111-112 apply to the B.G.S. These limitations affect applied and nontraditional coursework, applied music and music ensembles, native languages other than English, physical education activity courses and ROTC courses.

No more than 24 semester hours in any one department may be counted toward the 121 hours required for graduation. When two or more disciplines are housed in one department (such as French and Spanish), they may be counted separately.

Students who already have completed the course or hour requirement for another arts and sciences major may not be admitted to the B.G.S. program unless given special permission by the Curriculum Committee of the college or its designee. Students who have already earned a baccalaureate degree are not eligible to pursue the B.G.S. degree.

No more than 42 semester hours from other colleges combined will be counted toward graduation. Of these 42 hours, no more than 24 hours in any one department may be counted.

No credit will be allowed for duplication of courses. No credit will be allowed for duplication of certain series of courses as stated elsewhere in this Catalog.

Admission

Students who wish to become candidates for the B.G.S. must make a special application. Students should begin their formal application for admission to the B.G.S. program at or near the time they achieve junior standing. The formal application must be completed before students begin the last 30 credit hours of academic work.

To be admitted to candidacy for the B.G.S. degree, follow the steps listed below:

1. First, visit the college office, 105 Bowman Hall, for an initial conference. This conference will be followed by an evaluation of course credit and further advising as appropriate.
2. After appropriate consultation, submit a letter to the College of Arts and Sciences requesting admission to the B.G.S. degree program. This letter should express the following: reasons for seeking the degree; expectations concerning the usefulness of the degree for employment or for further education; acknowledgement of the nontraditional nature of the degree with its opportunities for freedom of choice and recognition that the degree falls outside the pattern of standard degrees; and a statement declaring full responsibility for one's B.G.S. program.

The letter should be accompanied by a proposed program of study. This plan should show the specific courses to be completed before graduation, arranged by department, with course numbers, titles and credit hours listed. The date of expected graduation should also be listed. In planning the proposed program of study, allowance should be made for the total number of credit hours and the total number of upper-division hours needed to complete the degree.

3. When the proposed program of study and letter have been approved by the college, complete a Change of Program form in the college office. The signing of this form completes admission to the program.

Advising

Because the B.G.S. is a nontraditional degree program, it is essential that students pursuing this degree plan their programs with care. Careful planning demands close consultation with advisers in the college office and with faculty advisers in the departments where the student plans to concentrate coursework. Extensive advising is especially important for students who plan to pursue advanced studies after completing the B.G.S.

Students pursuing the B.G.S. degree are officially advised in the college office. All decisions regarding students' programs are made in the college office, including the approval of changes in a program that has been accepted. Course substitutions in an accepted program must be approved before those classes are begun.

Integrated Life Sciences Six-Year Medical Program (B.S./M.D.)

Northeastern Ohio Universities College of Medicine

The Northeastern Ohio Universities College of Medicine (NEOUCOM) was established in 1973 by an act of the Ohio General Assembly. The college is a consortium of The University of Akron, Kent State University and Youngstown State University. NEOUCOM is fully accredited by the Association of American Medical Colleges and the Council on Medical Education of the American Medical Association. It graduated its first class in the spring of 1981.

The college was established to provide new opportunities in medical education. Its purpose is to prepare well-qualified physicians who are oriented to the practice of medicine at the community level, especially primary care and family medicine. The medical training required in the program is combined and integrated with university coursework in order to produce physicians who are well-grounded in the sciences, humanistic in their approach to patients and liberally educated.

This program requires that students be enrolled for 11 months in each of the six academic years. Phase I of the program is spent on one of the three university campuses. Phase I begins with a summer term and continues through two academic years and two additional summer terms. During this period, coursework is focused on studies in the behavioral and basic premedical sciences. It also includes orientation to clinical medicine and work in the humanities.

Phase II of the program involves intensive medical training and may be accompanied by summer coursework in the humanities. In the first year of Phase II, students study the basic medical sciences, including anatomy, physiology and microbiology, at the NEOUCOM Basic Medical Sciences Campus in Rootstown. Students may return to the university campus for the summer term following this year to complete any requirements for the Bachelor of Science degree.

In the remaining three years of Phase II (years four, five and six of the overall program), students develop competence in the clinical aspects of medicine through instruction provided principally at one or more of the community hospitals associated with the program.

Phase I Curriculum (B.S. in ILS)

Year 1

Summer 1:

US	10001, University Orientation	1
PSYC	11762, General Psychology	3
SOC	22100, Sociological Analysis	3

Humanities or Electives	6
	13
Fall 1:	
BSCI 20001, Zoological Foundations of Medicine I	4
CHEM 10960, Honors Gen. Chem. I	5
MATH 12021, Calculus for Life Sciences	4
HONR 10197, Fresh. Colloquium I	4
ILS 21091, ILS Seminar I	2
	19
Spring 1:	
BSCI 20140, Cell Biology	4
CHEM 10961, Honors General Chemistry II	5
SOC 42563, Sociology of Health and Health Care	3
HONR 10297, Fresh. Colloquium II	4
ILS 21091, ILS Seminar I	2
	18
Year 2	
Summer 2:	
BSCI 30156, Elements of Genetics	3
ILS 32592, Soc. Perspectives of Public Health	3
42591, Med. Soc. Research Skills	2
42592, Med. Soc. Practicum	3
Humanities or Electives	3
	14
Fall 2:	
BSCI 30171, Gen. Microbiology	4
CHEM 30481, Organic Chemistry	4
30475, Organic Chem. Lab	2
ILS 22091, ILS Seminar II	2
Choose one from:	5
PHY 13001, Gen. College Physics I (5)	
23101, Gen. University Physics I (5)	
	17
Spring 2:	
BSCI 30519, Vertebrate Embryology and Dev. Anatomy	4
CHEM 40245, Biochem. Found. of Medicine	4
MATH 12022, Prob. and Statistics for Life Sciences	3
ILS 22091, ILS Seminar II	2
Choose one from:	5
PHY 13002, Gen. College Physics II (5)	
23102, Gen. University Physics II (5)	
	18
Summer 3:	
ILS 30392, Psychological Helping Skills for Medicine	3
40392, Med. Psych. Practicum	3
PSYC 40111, Abnormal Psychology	3
Humanities or Electives	3
	12

Humanities and Electives

THE HUMANITIES COMPONENT (16):

Objective: Within the constraints imposed and the opportunities afforded by summer academic scheduling, to provide disciplined experience in and exposure to the differing modes of thought, perception/perspectives and methodologies of the disciplines usually classified as the "humanities" in arriving at informed critical analyses of the human experience.

Requirement: 16 semester hours of academic credit. At least one of the courses taken to satisfy the humanities must also satisfy the Diversity Requirement. The humanities requirements may be fulfilled in the following fashion during the students' fourth and fifth summers (fourth and sixth summers for students who begin core clerkships in fifth summer, rather than in the fall) in the joint six-year B.S./M.D. Program offered by the university in conjunction with the Northeastern Ohio Universities College of Medicine:

I—ILS 49997-Humanities Colloquium (1)

An integrative colloquium taken during the eight-week term of first summer of enrollment in humanities component of the ILS program; this colloquium is designed to explore the nature of—and establish the interrelationships among—the various perspectives on the human condition/experience and on the nature of knowledge and of "truth" offered by the several academic disciplines classified as the "humanities." Depending on the orientation of a given offering, the colloquium will attempt to provide a perspective on the relationship of the humanities to medical science, to the practice and profession of medicine, and to related issues, concerns and "applications."

II—Fine Arts (3)

Students are to take at least one approved course from the list of LER Fine Arts courses.

III—History, Literature, Philosophy (12)

Students are to take at least two courses apiece (at least one of each pair must be upper division) in each of two of the following fields from the list of suitable courses provided each summer:

- History*
- Literature*
- Philosophy*

ELECTIVES (6):

During the time devoted to fulfillment of the humanities requirements of the ILS program, students also will be taking "elective" hours sufficient to complete the 121 semester hours of satisfactorily completed academic credits required for the B.S. degree as offered through the College of Arts and Sciences of Kent State University. Humanities hours in excess of the 16 semester hours minimum of the humanities requirements will be applied toward

these "elective" hours. Up to 4 credit hours earned through the NEOUCOM "Human Values in Medicine" program may be applied toward elective requirements of the Kent State curriculum but not toward the 16-hour requirement of the humanities component of the ILS program.

Diversity (0-3):

Students must also satisfy the 6-hour Diversity Requirement of the university. At least one of the courses taken to satisfy the humanities must also satisfy the Diversity Requirement. (See Pages 81-83.)

Admission and Advancement

Eligibility for Admission

High school seniors and recent high school graduates, having demonstrated appropriate academic competence and motivation toward a career in medicine, will be considered for admission into the first year of this program by one or more of the three sponsoring consortium universities.

Interested students should apply directly to the Office of Student Affairs, Northeastern Ohio Universities College of Medicine, P.O. Box 95, Rootstown, OH 44072-0095, following completion of the preliminary AMCAS medical school application process.

Evaluation of Progress

Progress through the first two years of this program will be based on academic performance and development of personal maturity appropriate to assumption of professional responsibility. An Academic Review and Promotion Committee including university and College of Medicine faculty will assess these factors each year and will recommend students for promotion and formal admission to Phase II of the program.

How to Apply

To apply to the program, write to Kent State University, Admissions Office, 204 Kent Student Center, P.O. Box 5190, Kent, OH 44242-0001 and request application forms for the B.S./M.D. degree program. Inquiries may be directed to the Office of Integrated Life Sciences, (330) 672-3015.

Cost

The university in which the students are enrolled will assess its normal undergraduate fees for the first and second years. Fees for the third through sixth years will be set by the College of Medicine Board of Trustees and will not be significantly different from the fees that Ohio residents now pay to attend publicly supported medical schools elsewhere in the state.

INTERCOLLEGE/SCHOOL PROGRAMS

The following interdisciplinary major degree programs are offered by the College of Arts and Sciences in cooperation with the other colleges and schools at Kent State University.

Biotechnology*

*Pending Ohio Board of Regents Approval.

The interdisciplinary B.S. in biotechnology curriculum at Kent State University is designed to provide a strong academic foundation in biological sciences and chemistry, practical training in the various biotechnologies and a solid understanding of their application in industry and biomedicine. The curriculum includes a research experience at Kent and/or an internship in a biotechnology or pharmaceutical company. Registration for the internship requires approval of the program director and is also dependent on the availability of internship sites. Modern biotechnologies are applied in many beneficial ways in agriculture, health care, industrial processing and environmental management. Biotechnology graduates have employment opportunities in biomedical research and in the rapidly growing biotechnology and pharmaceutical industry.

MAJOR REQUIREMENTS96-99

BSCI	10120, Biological Foundations . . . . .	.4
	20140, Cell Biology . . . . .	.4
	30156, Elements of Genetics . . . . .	.3
	30171, General Microbiology . . . . .	.4
	40158, Molecular Biology . . . . .	.3
	40159, Molecular Biology Lab . . . . .	.2
	40174, Immunology . . . . .	.3
BTEC	10210, Introduction to Biotechnology . . . . .	.3
	40191, Seminar: Recent Dev. in Biotechnology . . . . .	.1
	40210, Case Studies in Biotechnology . . . . .	.3
	40220, Bioinformatics . . . . .	.2
BUS	10123, Exploring Business . . . . .	.3
CHEM	10060, 10061, General Chemistry I, II . . . . .	.8
	10062, 10063, General Chemistry Lab. I, II . . . . .	.2
	20481, Basic Organic Chemistry . . . . .	.4
	30100, Aqueous Equilibrium . . . . .	.2
	30101, Quantitative Analysis . . . . .	.2
	30284, Introductory Biological Chemistry . . . . .	.4
	40248, Advanced Biological Chemistry . . . . .	.3
	40251, Advanced Biological Chemistry Lab . . . . .	.2
CS	10051, Introduction to Computer Science . . . . .	.4
MATH	12021, Calculus for Life Sciences . . . . .	.4
	12022, Prob. & Statistics for Life Sciences . . . . .	.3
PHIL	21001, Introduction to Ethics . . . . .	.3

30015, Medicine and Morality . . . . .	.3
PHY 23001, University Physics Frontiers I . . . . .	.2
Choose 6-9 hours from the following . . . . .	.6-9
BTEC 40192, Biotechnology Internship (6-9)	
40196, Individual Investigation (6-9)	
Choose 9 hours from approved upper division electives . . . . .	.9
TOTAL	96-99

Minimum cumulative 2.00 GPA required.

Management and Industrial Studies

The management and industrial studies major in the B.S. is an interdisciplinary degree program designed to provide students with communication skills and human relations and management skills, as well as the technical expertise needed within many levels of business and industry. Such a broad-based background is especially appropriate for individuals already working and needing to strengthen their professional skills, entry-level employees interested in moving into supervisory or managerial positions, and individuals interested in small business organizations that require a small work force with breadth of knowledge and experience.

The major is based on a core set of courses drawn from the four areas of communication studies, social sciences, management and information systems and technology. Students will also complete an additional 12 semester hours from these four areas, with no more than 6 semester hours from any one area, to further develop a broad knowledge base. Electives, selected in consultation with an academic adviser, may be used to further develop a selected area of interest.

Management and Industrial Studies

The management and industrial studies major in the B.S. degree program requires a total of 121 semester hours of successfully completed credits. In addition, 42 of those 121 hours must be at the upper-division (30000-40000) level. Students must complete the degree with at least a 2.00 cumulative GPA.

I. COMPOSITION . . . . .	.6
ENG 10001, 10002, College English I, II	
<i>Based on test scores, students may be required to take ENG 10000.</i>	
II. MATHEMATICS, LOGIC and FOREIGN LANGUAGES . . . . .	.12
One foreign language or American Sign Language or equivalent in proficiency . . . . .	.8
Mathematics . . . . .	.4
<i>Students must pass one of the courses listed below or establish proficiency.</i>	
MATH 11011, College Algebra (4)	

12001, Algebra and Trigonometry (4)

Restrictions:

Since MATH 12001 covers the same content as 11011 plus 11022, credit is not allowed for both 12001 and 11011, or for both 12001 and 11022.

III. HUMANITIES and FINE ARTS . . . . .	.9
COMM 15000, Theory and Practice of Oral Discourse . . . . .	.3
PHIL D21001, Introduction to Ethics . . . . .	.3
Humanities or Fine Arts Elective . . . . .	.3
IV. SOCIAL SCIENCES . . . . .	.9
ECON 22060, Principles of Microeconomics . . . . .	.3
PSYC 11762, General Psychology . . . . .	.3
SOC D*12050, Introduction to Sociology . . . . .	.3
V. BASIC SCIENCES . . . . .	.9
<i>Nine hours must be selected from the basic sciences requirement on Page 79 under "Liberal Education Requirements."</i>	
VI. DIVERSITY	
<i>The program requirements include the required 6 hours of Diversity Requirements. (See the courses above marked with a "D." Courses with a domestic perspective are additionally marked with an asterisk [*].)</i>	
VII. US 10001, University Orientation . . . . .	.1
MAJOR REQUIREMENTS . . . . .	.61-68
COMM 25863, Business and Professional Communication . . . . .	.3
35550, Small Group Communication . . . . .	.3
ECON 22061, Principles of Macroeconomics . . . . .	.3
PSYC 31773, Industrial Psychology . . . . .	.3
SOC 32510, Sociology of Work . . . . .	.3
ACCT 23020, Introduction to Financial Accounting . . . . .	.3
23021, Introduction to Managerial Accounting . . . . .	.3
M&IS 24053, Introduction to Computer and Information Systems . . . . .	.3
24056, Fundamentals of Business Statistics . . . . .	.3
24163, Principles of Management . . . . .	.3
34060, Operations Management . . . . .	.3
34180, Human Resource Management . . . . .	.3
TECH 31000, Cultural Dynamics of Technology . . . . .	.3
43700, Computer Integrated Manufacturing . . . . .	.3
Choose one from: . . . . .	.1-6
TECH 33056, Cooperative Education — Professional Development (1-6)	
43096, Individual Investigation in Applied Science and Technology (1-3)	
Choose one from: . . . . .	.3
ENG 20001, Business Writing (3)	
20002, Introduction to Technical Writing (3)	
Choose one from: . . . . .	.3-5
MATH 11012, Intuitive Calculus (3)	
12002, Analytic Geometry and Calculus I (5)	

Additional Coursework 12

Select 12 additional hours from the following with no more than 6 from any one group:

SOCIAL SCIENCES

- PSYC 30821, Psychology of Motivation (3)
- 41532, Social Psychology (3)
- SOC 42564, Bureaucratic Organizations (3)

COMMUNICATION

- COMM 35864, Organizational Communication (3)
- ENG 30063, Advanced Business and Professional Writing (3)
- 30064, Argumentative Prose Writing (3)
- 30065, Expository Prose Writing (3)
- 31001, Fundamental English Grammar (3)

TECHNOLOGY

- TECH 31020, Automated Manufacturing (3)
- 41055, Industrial Practice (3)
- 43080, Industrial and Environmental Safety (3)

UPPER-DIVISION BUSINESS

- ACCT 33063, Cost Control and Analysis for Management (3)
- M&IS 44150, Total Quality Management (3)
- FIN 36053, Business Finance (3)

The interdisciplinary nature of the B.S. in management and industrial studies enables students to participate in upper-division courses offered through the College of Business Administration. Students in this major may take up to 25 percent or 30 semester hours of their degree requirements from the following departments: accounting, management and information systems, economics, finance and marketing. Up to 9 hours of coursework in economics, including ECON 22060, ECON 22061 and three upper-division elective hours, will not be counted toward the 30 semester-hour maximum. For purposes of the B.S. in management and industrial studies, students may use approved Regional Campus equivalents for ACCT 23020, 23021, and M&IS 24053, 24056. Other courses from the Regional Campuses' or any community college's applied technology programs may be used or substituted for business-related coursework only with the permission of an adviser.

ELECTIVES 7-14

3-8 hours need to be upper-division

TOTAL	121
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The 7-14 elective hours are needed to satisfy the minimum 121 total hour requirement. Depending upon the specific coursework taken to satisfy the major requirements, 3-8 of these elective hours must be taken at the upper-division level to satisfy the minimum 42 upper-division hour requirement.

MINORS IN THE COLLEGE OF ARTS AND SCIENCES*

The College of Arts and Sciences offers two types of minor programs. Students may pursue minors with individual departments, or they may elect interdisciplinary minor programs, which include coursework from several departments. All of the minor programs offered in the College of Arts and Sciences are open to students pursuing an undergraduate degree at Kent State University, with the restriction that students may not pursue a major and minor in the same discipline.

Departmental minors generally require from 18 to 24 hours of study in the discipline. In addition, some departmental minors have prerequisites. These prerequisites are courses that are required as a foundation for study in the minor. In some cases, students' majors will have required these courses; in other cases, the students may have demonstrated proficiency in these areas through testing or high school coursework. Prerequisites are listed with the minor programs below; prerequisites must be completed before students begin work in the minor.

Some departments have different introductory course sequences for majors and nonmajors. Students pursuing departmental minors are generally expected to take courses intended for majors in that discipline. However, if students take a nonmajor introductory sequence and later decide to minor in that discipline, and if performance in the nonmajor sequence is clearly superior, the department may recommend that the nonmajor sequence be accepted as a substitute for the major coursework.

Courses taken for a minor may overlap with courses required under the college's General Requirements; in addition, courses taken for a minor may overlap with coursework in the major, with certain restrictions for interdisciplinary minors noted below.

Special topics courses and colloquia are often listed as acceptable for interdisciplinary minors. However, students should be aware that course numbers for special topics courses and colloquia are used for a variety of offerings, many of which would not be suitable for the particular minor in question. For that reason, it is essential that students who wish to use a special topics course or colloquium for an interdisciplinary minor consult the program coordinator to make certain that the course being offered in a particular semester is suitable.

Certain interdisciplinary minors may be incorporated within the ethnic heritage interdisciplinary major described above. They provide the studies emphasis area required as core IV in that major. Minors that may be used for this purpose include British studies, German studies, Hellenic studies, Jewish studies, Lithuanian studies, Romanian studies and Russian studies.

Certificates of achievement are awarded to students who satisfactorily complete an interdisciplinary minor.

*See Pages 104-105 for lists of departmental and interdisciplinary minors.

African Studies

(Felix K. Ekechi, Coordinator, 305 Bowman Hall)

The African studies program is designed to provide a broad familiarity with African history, culture and contemporary problems. Study in this program may be coordinated with relevant language study through the critical languages program. The African studies program requires successful completion of a minimum of 18 semester hours of coursework selected from the list given below; coursework must be completed in at least three academic disciplines.

18 hours from the following: 18

ART	42025, Art of West Africa (3)	
	42026, Art of Nigeria (3)	
	42027, Art of Central Africa (3)	
GEOG	37040, Geography of Africa (3)	
HIST	31130, History of African Civilization (3)	
	41131, History of Africa to 1880 (3)	
	41132, History of Africa: 1880-Present (3)	
	41135, History of West Africa (3)	
PAS	10101, 10102, Elementary Kiswahili I, II (8)	
	22200, Intro. to African Arts (3)	
	42095, Special Topics in the Literature of Pan-Africa (3)	
POL	30540, African Politics (3)	
MUS	42111, African Music and Cultures (3)	
ANTH	38240, Culture and Personality (3)	
	38250, Religion: A Search for Meaning (3)	
	38260, Patterns of Peasant Life (3)	
	48410, Prehistory: Eurasia and Africa (3)	
	48230, Socio-Cultural Change (3)	
ECON	32075, Intro. to International Trade (3)	
	42075, International Economic Relations (3)	
	42076, Economic Development (3)	
CRIT	13201, 13202, 23203, 23204 (Yoruba) (14)	
		TOTAL 18

Minimum cumulative 2.00 GPA required.

American Sign Language

Prerequisites:

*ASL 19201, 19202, Elementary American Sign Language I, II (8)
ASL 29201, 29202, Intermediate American Sign Language I, II (6)*

ASL	39201, 39202, Advanced American Sign Language I, II . . . . .	.6
	49092, Practicum: Deaf Residential School . . . . .	.1
	49101, Deaf Culture and Community . . . . .	.3
	49105, Signed English and Manually Coded English Systems . . . . .	.3
	49108, ASL Linguistics and Usage . . . . .	.3
	49309, Introduction to Deaf Studies . . . . .	.3
	TOTAL	19

Minimum cumulative 2.00 GPA required.

American Studies

(Department of History, 305 G Bowman Hall)

Drawing on coursework in history, literature, the arts and the social sciences, the American studies minor offers a broad introduction to American culture. This program takes an interdisciplinary approach to American life and thought, encouraging the drawing of connections among various aspects of American culture.

AMST	10001, Introduction to American Studies	3
	40197, Senior Colloquium in American Studies	3
	American Literature:	6
ENG	33001, U.S. Literature to 1865 (3)	
	33002, U.S. Literature from 1865 to 1945 (3)	
	33003, U.S. Literature from 1945 to Present (3)	
	33011, African-American Literature (3)	
	34021, Women's Literature (3)	
	36001, Literary Criticism (3)	
	39695, Topics in Ethnic Literature of the U.S. (3)	
	American History:	6
HIST	31070, History of American Business Enterprise (3)	
	31078, African American History (3)	
	41056, History of Colonial America: 1492-1714 (3)	
	41057, Eighteenth-Century America: 1714-1789 (3)	
	41069, Recent America: The United States, 1929-Present (3)	
	41070, American Social and Intellectual History, 1790-1876 (3)	
	41071, American Social and Intellectual History, 1876-Present (3)	
	41074, American Economic History (3)	
	41079, History of the Immigrant in America (3)	

	41083, U.S. Foreign Relations Through World War I (3)	
	41084, U.S. Foreign Relations From 1920 (3)	
	Pan-African Studies:	3
PAS	33110, The Black Woman: Historical Perspectives (3)	
	35100, African American Social, Political, and Economic Systems (3)	
	35200, African Social, Political, and Economic Systems (3)	
	41192, African-American Affairs Practicum (3)	
	42500, Black Education In America (3)	
	49095, Selected Topics (3)	
	Plus 6 hours in the arts or 6 hours in methods:	6
The Arts		
ART	42056, American Art: 1607-1860 (3)	
	42057, American Art and Architecture: 1860-1940 (3)	
	42058, American Film, Photography, Art and Ideas (3)	
JMC	40008, History of American Mass Communication (3)	
MUS	42131, America's Music (3)	
	42161, History of Jazz (3)	
Methods		
ANTH	18210, *Introduction to Cultural Anthropology (3)	
	48270, Native Peoples of North America (3)	
POL	40112, Politics and the Mass Media (3)	
	40116, Political Opinion and Political Behavior (3)	
	40830, U.S. Foreign Policy (3)	
GEOG	17064, *Geography of the United States and Canada (3)	
	42064, Historical Geography of the United States and Canada (3)	
PHIL	31010, **Twentieth-Century Philosophy (3)	
	31020, **American Philosophy (3)	
	41060, Pragmatism and Beyond (3)	
	<hr/> <hr/> TOTAL	27

Appropriate special topics courses, particularly those in American studies, may be substituted for courses listed above if approved by the program coordinator.

Minimum cumulative 2.00 GPA required.

**Only one of these two courses may be counted toward the American studies minor requirements.*

***Only one of these two courses may be counted toward the American studies minor requirements.*

Ancient, Medieval and Renaissance Studies

(Susanna Fein and Isolde Thyret, Coordinators, 113G Satterfield and 305 Bowman)

The program in ancient, medieval and renaissance studies offers a culturally comparative minor in which the distance of time lends profound diversity from present experience. The program allows students to explore the origins and development of western culture as defined across continents, religions and civilizations, through a range of disciplines (anthropology, architecture, art, fashion, history, language, literature, music, philosophy and theatre). The program's flexibility encourages students to pursue specific interests, for example, early religion, high medieval culture, classical influences upon the Renaissance or Byzantine culture.

Students earning a minor in AMRS take a total of 21 semester hours—6 lower division hours and 15-16 upper division hours—in at least three disciplines. No more than 6 hours counted toward the major may also be counted toward the minor. There is no specific language requirement, but students are encouraged to select a language that could be used to satisfy Liberal Education Requirements and also to support their AMRS minor coursework. In selecting courses for the minor, students are responsible for meeting the prerequisites set by individual disciplines.

Lower-Division Electives 6

Choose two of the following from two disciplines:

ANTH	18210, Introduction to Cultural Anthropology (3)
	18420, Introduction to Archaeology (3)
ARCH	10011, Survey of Architectural History I (3)
	10012, Survey of Architectural History II (3)
ART	22006, Art History I: Ancient and Medieval Art (3)
	22007, Art History II: Renaissance to Modern Art (3)
CLAS	21404, The Greek Achievement (3)
	21405, The Roman Achievement (3)
ENG	21054, Introduction to Shakespeare (3)
	22071, Great Books I (3)
	25001, Literature in English I (3)
FD&M	20011, History of Costume I (3)
HIST	11050/HONR 13197, History of Civilization I (3)
MUS	22211, Music History to 1750 (3)
PHIL	21020, Comparative Religious Thought I (3)

Upper-Division Electives 15-16

Choose five of the following from at least three disciplines:

ANTH	38250, Religion: A Search for Meaning (3)
	38260, Patterns of Peasant Life (3)
	38420, Prehistory: Urbanism (3)
ARCH	45201, History of Architecture I (3)
	45202, History of Architecture II (3)
	45210, Renaissance Architecture (3)
	45211, Baroque Architecture (3)
ART	42036, Medieval Art (3)
	42039, Gothic Art, 12th to 15th Centuries (3)
	42041, Italian Renaissance Art (3)

	42042, Northern Renaissance Art (3)
	42046, Baroque Art of the 17th Century (3)
	42095, ST: High Renaissance Art (3)
CLAS/HIST	41006, Roman History (3)
	41097, Colloquium in Classics (3)
	41301, Classical Mythology (3)
	41401/ART 42031, Greek Archaeology and Art (3)
	41402/ART 42032, Roman Archaeology and Art (3)
	41503, Greek Literature in Translation (3)
ENG	31002, History of the English Language (3)
	34001, British Literature to 1500 (3)
	34002, British Literature from 1500 to 1660 (3)
	34055, Shakespeare (3)
	34065, Chaucer (3)
	34095, ST: John Milton (3)
	35201, The Bible as Literature (3)
	39895, ST: Classical Rhetorical Theory (3)
	39995, ST: Arthurian Romance (3)
FR	43333, Old French Literature (3)
	43352, Montaigne and Rabelais (3)
GER	41331, History of German Literature (4)
GRE	34350, Advanced Prose Authors (3)
	34351, New Testament in Greek (3)
	34370, Plato: Apology and Phaedo (3)
	34371, Homer (3)
	44352, Greek Drama (3)
HIST	31009, History of Byzantine Civilization (3)
	31027, History of England to 1688 (3)
	31127, Ancient and Early Medieval Jewish History (3)
	31128, Late Medieval and Modern Jewish History (3)
	41097, Coll: Saints, Monks and the Medieval Community (3)
	42397, Coll: Women in Europe from Antiquity to the Renaissance (3)
	41010, The Early Middle Ages (3)
	41011, The High Middle Ages (3)
	41014, Europe in the Renaissance (3)
	41016, The Protestant and Catholic Reformations (3)
	41017, Seventeenth-Century Europe (3)
	41026, Tudor England 1485-1603 (3)
	41044, Russian from its Origins to 1801 (3)
	43697, Colloquium in Tudor and Stuart England (3)
LAT	36170, Cicero (3)
	36171, Vergil (3)
	36351, Latin Comedy (3)
	36372, Lyric Poetry (3)
	36373, Advanced Prose Authors (3)
	46095, Selected Topics in Latin (3)
	46352, Elegaic Poets (3)
	46374, Juvenal's Satires and Martial's Epigrams (3)
	46375, Lucretius (3)

MUS	40295, ST: Madrigal Music
	40295, ST: Development of Polyphonic Mass
	40295, ST: The Mass from Machaut to Palestrina
PHIL	31001, Ancient Greek Philosophy (3)
	31002, Medieval Philosophy (3)
	31065, Philosophies of Religious Experience (3)
	41065, Plato (3)
	41070, Aristotle (3)
SPAN	38330, Early Spanish Literature (3)
	48340, Medieval Spanish Poetry (3)
	48350, Don Quixote (3)
	48351, Minor Works of Cervantes (3)
	48352, Medieval Spanish Prose (3)
THEA	31112, History of Theatre and Drama I (3)

TOTAL 21-22

Appropriate specialized offerings may be substituted above as available with approval of the coordinator(s).

Minimum cumulative 2.00 GPA required.

Anthropology

ANTH	18210, Intro. to Cultural Anthropology	3
	18420, Prehistoric Archaeology	3
	38630, Principles of Biological Anthropology	3
	plus 3 additional upper-division elective hours	3
	Choose one from:	3
ANTH	38430, Lithics (3)	
	38480, Archaeological Analysis (3)	
	48410, Stone Age Archaeology (3)	
	48420, Archaeology of North America (3)	
	48440, Prehistory: Ohio (3)	
	Choose one from:	3
ANTH	38680, Primate Societies (3)	
	48810, Human Paleontology (3)	
	48820, Human Musculoskeletal System (3)	
	48830, Human Behavioral Ecology and Evolution (3)	
	48840, Natural Selection in Perspective (3)	
	Choose one from:	3
ANTH	38240, Culture and Personality (3)	
	48214, Politics of Culture (3)	
	48250, Culture and Curing (3)	
	48260, Culture Conflict (3)	
	48270, Native Peoples of North America (3)	
	48630, Pacific Island Cultures (3)	

TOTAL 21

Minimum cumulative 2.00 GPA required.

Applied Conflict Management

CACM 11001, Introduction to Conflict Management	3
21002, Solving Problems vs. Transforming Conflicts . . .	3
31003, Nonviolence: Theory and Practice	3
31010, Conflict Theory	3
43030, Mediation: Theory and Training	3
Choose one of the following:	3
CACM 21010, Cross-Cultural Conflict Management (3)	
32020, Strategic Planning (3)	
34040, Negotiation (3)	
35050, Public Sector Dispute Resolution (3)	
35092, Internship in Conflict Management (3)	
35095, Special Topics (3)	
TOTAL	18

Minimum cumulative 2.00 GPA required.

Applied Mathematics

Prerequisites:

CS 10051, Intro. to Computer Science (4)	
MATH*12001, Algebra and Trigonometry (4)	
12002, Analytic Geometry and Calculus I (5)	
12003, Analytic Geometry and Calculus II (5)	
Core Courses:	12
MATH 21001, Linear Algebra with Applications	3
22005, Analytic Geometry and Calculus III	3
32044, Intro. to Ordinary Differential Equations	3
CS 23021, Intro. to Object-Oriented Programming	3
Elective Courses	9-10
Three courses selected from the following in consultation with the student's minor adviser.	
CS 33001, Data Structures (3)	
MATH 31011, Discrete Mathematics (3)	
40011, Intro. to Probability Theory and Applications (3)	
40012, Intro. to Statistical Concepts (3)	
40041, Statistical Methods for Experiments (3)	
40042, Sampling Theory (3)	
40051, Topics in Probability Theory and Stochastic Processes (3)	
41021, Theory of Matrices (3)	
42011, Mathematical Optimization (3)	
42031, Mathematical Models and Dynamical Systems (3)	
42041, Advanced Calculus (3)	
42045, Introduction to Partial Differential Equations (4)	
42048, Introduction to Complex Variables (3)	
42091, Seminar: Modeling Projects (3)	

42201, Introduction to Numerical Computing I (3)	
42202, Introduction to Numerical Computing II (3)	

21-22

**MATH 12001, which is a prerequisite for MATH 12002, should be bypassed by students with sufficient background.*

Minimum cumulative 2.00 GPA required.

Asian Studies

*(Dennis Hart [Political Science], James A. Tyner [Geography]
Co-coordinators of Asian studies)*

The Asian studies program provides focused study in the cultures, histories and governments of Asia. The program requires successful completion of a minimum of 16 hours of nonlanguage coursework selected from the list given below; this coursework must be distributed in three of the areas listed. Students may earn a certificate in Asian studies if they complete the required nonlanguage courses plus one year of introductory study of an Asian language chosen from among the four currently available through the heritage languages program—Chinese, Hindi, Japanese, Korean—or demonstrate the equivalent skill or proficiency by an examination.

Nonlanguage courses16

<i>distributed in three of the following areas:</i>	
ANTH* 38096, Individual Investigation in Anthropology (3)	
ART 42022, The Arts of China (3)	
42023, The Arts of Japan (3)	
GEOG 37079, Geography of South Asia (3)	
HIST 31112, Chinese Civilization (3)	
41112, History of Modern China (3)	
41114, Economic History of E. Asia in Modern Times (3)	
41116, History of Japan (3)	
42297, Colloq. on Contemporary China and Japan (3)	
* 49196, Individual Investigation (2-3)	
MUS 42151, Asian Music (3)	
* 45311, Chamber Music (1-2)	
POL 30530, Asian Politics (3)	
* 40996, Individual Investigation (1-3)	
* 40995, Selected Topics in Political Science (1-3)	

Language courses8

8 hours or equivalent required for certificate

CHIN 15101, 15102, 25201, 25202 (14)	
JAPN 15101, 15102, 25201, 25202 (14)	
HRTG 10101, 10102, 20201, 20202 (14)	

TOTAL 16-24

*These and other selected topics courses that focus on Asia may be counted toward the program if approved by the coordinator.

Minimum cumulative 2.00 GPA required.

Biological Sciences

Prerequisites:

- CHEM 10060, 10061, General Chemistry I, II (8)
- 10062, 10063, Gen. Chemistry Lab I, II (2)
- MATH 12001, Algebra and Trigonometry (4)

Core Courses:

- BSCI 10110, Biological Diversity 4
- 10120, Biological Foundations 4
- 20140, Cell Biology 4
- 30156, Elements of Genetics 3
- 40163, Organic Evolution 3

Elective Courses:

Choose one from: 4

- BSCI 30171, General Microbiology (4)
- 30267, Plant Physiology (4)
- 30360, General Ecology (4)
- 40430, General Physiology (4)

TOTAL 22

Minimum cumulative 2.00 GPA required.

British Studies

(Department of History, 305 Bowman Hall)

The British studies program provides a concentration in British literature, history and civilization. This program may be used as the studies emphasis area (core IV) in the ethnic heritage major.

British Literature 9

three of the following representing at least two literary periods:

- ENG 31002, History of the English Language (3)
- 34001, British Literature to 1500 (3)
- 34002, British Literature from 1500 to 1660 (3)
- 34003, British Literature from 1660 to 1800 (3)
- 34004, British Literature from 1800 to 1900 (3)
- 34005, British and Irish Literature from 1900 - Present (3)
- 34011, World Literature in English (3)
- 34055, Shakespeare (3)
- 34065, Chaucer (3)
- 34095 Topics: Major Author Studies (British) (3)

British History 9

three of the following:

- HIST 31027, History of England to 1688 (3)
- 31028, History of England Since 1688 (3)
- 31029, History of the British Empire and Commonwealth Since 1815 (3)
- 41026, Tudor England, 1485-1603 (3)
- 41028, Hanoverian England (3)
- 41031, Modern British Intellectual History (3)
- 43697, Colloquium in Tudor and Stuart England (3)
- 43797, Colloquium on Victorian England (3)

British Civilization 3

one of the following:

- ART 42036, Medieval Art (3)
- 42042, Northern Renaissance Art (3)
- PHIL 31004, British Empiricism (3)
- 41077, British and American Thought (3)

Appropriate specialized offerings may be substituted with approval of the British studies program coordinator.

TOTAL 21

Minimum cumulative 2.00 GPA required.

Business French

Prerequisites:

- FR 13201, 13202, Elementary French I, II (8)
- FR 23201, 23202, Intermediate French I, II (6)

Prerequisites can be waived by demonstrated language proficiency.

- FR 33211, French Conversation 3
- 33212, French Composition 3
- 33215, French Phonetics & Diction 3
- 33240, Conversation for Business & Special Purposes 3
- 33421, French Civilization 3
- 43240, Business and Special Texts 3
- MCLS 40420, Foreign Language and Culture Studies 3

TOTAL 21

FR 33240 is offered only in the fall of even-numbered years, and 43240 is offered only in the spring of odd-numbered years. Students should consult with the department about exact scheduling.

Minimum cumulative 2.00 GPA required.

Business German

Prerequisites:

GER 11201, 11202, Elementary German I, II (8)

GER 21201, 21202, Intermediate German I, II (6)

Prerequisites can be waived by demonstrated language proficiency.

GER	31201, Intensive German Grammar . . . . .	.3
	31211, German Composition/Conversation . . . . .	.3
	31215, German Phonetics & Diction . . . . .	.3
	31421, German Civilization . . . . .	.3
	31240, Conv. for Bus. & Special Purposes . . . . .	.3
	41240, Business and Special Texts . . . . .	.3
MCLS	41230, Advanced Translation Practice . . . . .	.3
TOTAL		21

GER 31240 is offered only in the fall of even-numbered years, and 41240 is offered only in the spring of odd-numbered years. Students should consult with the department about exact scheduling.

Minimum cumulative 2.00 GPA required.

Business Russian

Prerequisites:

RUSS 12201, 12202, Elementary Russian I, II (8)

RUSS 22201, 22202, Intermediate Russian I, II (6)

Prerequisites can be waived by demonstrated language proficiency.

RUSS	32207, Russian Conversation . . . . .	.2
	32211, Composition & Conversation . . . . .	.3
	32215, Russian Phonetics & Diction . . . . .	.3
	32421, Russian Civilization . . . . .	.4
	32240, Conv. for Bus. & Spec. Purposes . . . . .	.3
	42240, Business and Special Texts . . . . .	.3
MCLS	40420, Foreign Lang. & Culture Studies . . . . .	.3
TOTAL		21

RUSS 32240 is offered only in the fall of even-numbered years, and 42240 is offered only in the spring of odd-numbered years. Students should consult with the department about exact scheduling.

Minimum cumulative 2.00 GPA required.

Business Spanish

Prerequisites:

SPAN 18201, 18202, Elementary Spanish I, II (8)

SPAN 28201, 28202, Intermediate Spanish I, II (6)

Prerequisites can be waived by demonstrated language proficiency.

SPAN	38211, Spanish Grammar & Composition . . . . .	.3
	38213, Spanish Reading & Conversation . . . . .	.3
	38215, Spanish Phonetics & Diction . . . . .	.3
	38240, Conv. for Business & Special Purposes . . . . .	.3
	48240, Business and Special Texts . . . . .	.3
MCLS	40420, Foreign Lang. & Culture Studies . . . . .	.3
Choose one from: . . . . .		.3
	38421, Civilization of Spain (3)	
	38424, Culture & Civ. of Latin America (3)	
TOTAL		21

SPAN 38240 is offered only in the fall of even-numbered years, and 48240 is offered only in the spring of odd-numbered years. Students should consult with the department about exact scheduling.

Minimum cumulative 2.00 GPA required.

Cartography

(Ute J. Dymon, Coordinator, 438 McGilvrey Hall)

The cartography minor is intended to provide expertise in modern mapmaking. It is especially designed to meet federal governmental standards for the employment of cartographers.

Requirements:

GEOG	29160, Intro. to Maps and Map Analysis . . . . .	.3
	39161, Intro. to Cartography . . . . .	.3
	39162, Intro. to Cartography Lab. . . . .	.1
	49165, GeoMapping . . . . .	.3
Electives* . . . . .		.3-8
At least two of:		6-8
GEOG	39080, Introduction to Geographical Information Systems (3)	
	49162, 49163, Advanced Cartography and Lab (4)	
	49198, Research in Cartography and GIS (3)	
	49210, 49211, Earth Imagery and Lab (4)	
At least two of:		6-9
GEOG	39002, Statistical Methods in Geography (3)	
MATH	10041, Elementary Probability and Statistics (3)	
	12001, Algebra and Trigonometry (4)	

12002, Analytic Geometry and Calculus I (5)	
TOTAL	30

*Electives may be chosen from any of the above or from: GEOG 21062, 31064, 32061; GEOL 21062, 21080; ARCH 45631, 45630; VCD 17000. Other electives may be appropriate but must have prior approval of the program coordinator.

Minimum cumulative 2.00 GPA required.

Chemistry

Choose either:10

CHEM 10060, 10061, Gen. Chemistry I, II (8)
10062, 10063, Gen. Chem. Lab I, II (2)

or

CHEM 10960, 10961, Honors General Chemistry (10)

Core Courses:

CHEM 30100, Aqueous Equilibrium2
30475, Organic Chemistry Lab2

Choose one from:4

CHEM 20481, Basic Organic Chemistry (4)
30481, Organic Chemistry (4)

Choose 4 hours from:4

CHEM 30101, Quantitative Analysis (2)
30102, Solution Chemistry Lab (2)
30284, Introductory Biological Chemistry (4)

Choose 3-4 hours from: (if not taken above)3-4

CHEM 30101, Quantitative Analysis (2)
30102, Solution Chemistry Lab (2)
30113, Instrumental Analysis (4)
30284, Introductory Biological Chemistry (4)
30476, Organic Chemistry Lab (2)

CHEM 20482, Basic Organic Chemistry (2)

or

30482, Organic Chemistry (2)
40555, Elementary Physical Chemistry (3)

or

40556, Elementary Physical Chemistry (3)

or

40567, Basic Concepts of Physical Chemistry (4)

TOTAL	25-26
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Minimum cumulative 2.00 GPA required.

Classics

(Jennifer Larson, Coordinator, 304-B Satterfield Hall)

Students wishing a minor in classics must choose a program with an emphasis in either Greek or Latin.

Latin or Greek

Prerequisites:

LAT 16201, 16202, Elementary Classical Latin I, II (8)
or

GRE 14201, 14202, Elem Classical Greek I, II (8)

Note: Prerequisites may be waived by demonstrated proficiency.

Classical Language and Literature Courses:6

LAT 26201, Intermediate Latin I: (3)
26202, Intermediate Latin II: (3)

or

GRE 24201, Inter. Class. Greek I (3)
24202, Inter. Class. Greek II (3)

Classical Culture Courses:12

CLAS 21404, The Greek Achievement (3)
21405, The Roman Achievement (3)
41097, Colloquium in Classics (3)
41301, Classical Mythology (3)
41401, Greek Archaeology and Art (3)
41402, Roman Archaeology and Art (3)
41503, Greek Literature in Transl. (3)

CLAS/HIST41006, Roman History (3)

HIST 41003, History of Ancient Greece (3)

Any Latin course at the 30000-40000 level (3)

Any Greek course at the 30000-40000 level (3)

TOTAL	18
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Minimum cumulative 2.00 GPA required.

Climatology

(Scott Sheridan, Coordinator, 410 McGilvrey Hall)

The climatology program aims to provide an overview of the atmospheric sciences and how the climate system works. It also focuses on understanding the role of climate in an increasingly diverse world. Students will learn about potential climate change and how to understand and forecast its potential impacts. Students will also learn how to apply their knowledge of climate and weather to a variety of interdisciplinary fields, including agriculture, conservation, health, forestry and environmental planning.

MATH 12002, Analytic Geometry and Calculus I5

PHY 13001, General College Physics I5

GEOG 21062, Physical Geography3

	31062, Fundamentals of Meteorology	3
	31064, Principles of Climatology	3
	Two of the following	6
GEOG	41062, Advanced Physical Geography (3)	
	41050, Polar and Alpine Environments (3)	
	41265, Urban Climatology (3)	
	<i>Or any other GEOG 40000-level courses, as approved by the coordinator.</i>	
	TOTAL	25

Minimum cumulative 2.00 GPA required.

Comparative Literature

(Thomas J. Hines, Coordinator, 302-E Satterfield Hall)

The comparative literature minor allows students to combine coursework in the literatures of several cultures with interdisciplinary courses that support and clarify the relations between these literatures.

Prerequisites:

ENG 10001, 10002, College English I, II (6)
14 hours in an appropriate language or equivalent in established proficiency.

Comparative Literature Core

A&S 30891, Introductory Seminar in Comparative Literature . 4
 40897, Colloquium in Comparative Literature 4

National Literature 6

6 hours of one national literature (other than major) chosen from one of the lists of courses below

ENG	33001, U.S. Literature to 1865 (3)	
	33002, U.S. Literature from 1865 to 1945 (3)	
	33003, U.S. Literature from 1945 to Present (3)	
	34001, British Literature to 1500 (3)	
	34002, British Literature from 1500 to 1660 (3)	
	34003, British Literature from 1660 to 1800 (3)	
	34004, British Literature from 1800 to 1900 (3)	
	34005, British and Irish Literature from 1900 - Present (3)	
	34055, Shakespeare (3)	
	34065, Chaucer (3)	
	35101, Literature and Other Disciplines (3)	
	39195, Topics in Drama (3)	
	39295, Topics in Poetry (3)	
	39395, Topics in Fiction (3)	
FR	33335, Intro. to French Theatre (3)	
	33336, Intro. to French Poetry (3)	
	33337, Intro. to French Novel (3)	
	43333, Old French Literature (3)	

	43354, Classical French Drama (3)	
	43356, Moliere (3)	
	43358, Classicism Outside the Drama (3)	
	43360, Voltaire and Encyclopedists (3)	
	43362, Rousseau and Pre-Romanticism (3)	
	43364, French Romanticism (3)	
	43365, 19th-Century French Theatre (3)	
	43366, Studies in 19th-Century Novel (3)	
	43368, 20th-Century French Novel (3)	
	43370, 20th-Century French Theatre (3)	
	43374, La Pléiade (3)	
GER	31303, Introduction to German Literature (3)	
	plus any one of the following:	
	31335, 19th-Century German Drama and Lyric (3)	
	31337, 20th-Century German Prose (3)	
	31338, 20th-Century German Drama and Lyric (3)	
	41331, History of German Literature (4)	
	41334, The German Novella (3)	
	<i>appropriate "survey" course strongly recommended</i>	
GRE	34350, Adv. Prose Authors (Greek) (3)	
	34370, Plato, <i>Apology</i> and <i>Phaedo</i> (3)	
	34371, Homer (3)	
	44352, Greek Drama (3)	
ITAL	35331, Early Italian Literature (3)	
	35332, Recent Italian Literature (3)	
	35421, Italian Civilization (3)	
	35597, Colloquium in Italian Literature (3)	
LAT	36170, Cicero (3)	
	36171, Vergil (3)	
	36351, Latin Comedy (3)	
	36373, Advanced Prose Authors (3)	
	46095, Selected Topics in Latin (2-3)	
	46352, Elegiac Poets (3)	
	46374, Juvenal, Satires; Martial, Epigrams (3)	
	46375, Lucretius (3)	
PORT	37330, Early Brazilian Literature (3)	
	37331, Recent Brazilian Literature (3)	
	37421, Luso-Brazilian Civilization (3)	
	47095, Selected Topics (3)	
RUSS	32303, Modern Writers (3)	
	plus any one of the following:	
	32325, Russian Poetry and Folklore (3)	
	32350, Russian Prose (3)	
	32354, Russian Drama (3)	
	42351, Survey of Russian Soviet Lit (4)	
	<i>appropriate "survey" course strongly recommended</i>	
SPAN	38330, Early Spanish Literature (3)	
	38331, Recent Spanish Literature (3)	
	38334, Early Spanish-American Literature (3)	
	38335, Recent Spanish-American Literature (3)	

- 48350, Don Quixote (3)
- 48354, Neoclassicism and Romanticism (3)
- 48356, Golden Age Prose (3)
- 48358, 19th-Century Novel (3)
- 48366, Novel of the Mexican Revolution (2)
- 48370, Modernismo in Spanish-America (3)
- 48372, Spanish-American Novel I (3)
- 48373, Spanish-American Novel II (3)
- 48374, Modern Spanish-American Drama (3)
- 48376, Contemporary Spanish-American Short Story (3)

Literature Electives 12

12 hours of electives chosen from junior and senior (30000- and 40000-level) courses in literature (including courses offered in translation) other than the major from either of the following Departments: English or Modern and Classical Language Studies. Electives may also be chosen from related disciplines such as history, philosophy, art history and music, provided the courses are related, not in the student's major field, and each substitution is approved by the coordinator for the comparative literature program.

TOTAL 26

Minimum cumulative 2.00 GPA required.

Computer Science

Prerequisites:*

- CS 10051, Introduction to Computer Science (4)
- MATH**12001, Algebra and Trigonometry (4)

Core Requirements:

- CS 23021, Introduction to Object-Oriented Programming . . . 3
- 33001, Data Structures 3

Elective Courses: 12

In consultation with the student's minor adviser, 12 hours must be chosen from upper division CS courses. Six of these hours must be in courses numbered 40000 or above. In choosing these courses, students are warned, however, that the prerequisites for a course may cause the total number of hours to increase above 12.

TOTAL 18

*MATH 12002 is a prerequisite for some electives.

**Math 12001 is a prerequisite which should be bypassed by students with sufficient background.

Minimum cumulative 2.00 GPA required.

Economics

- ECON 22060, Principles of Microeconomics 3
- 22061, Principles of Macroeconomics 3
- plus 9 additional upper-division credits in economics 9
- (which may include 32040 or 32041 if not selected below) elected with the approval of the student's adviser.

Choose one from: 3

- ECON 32040, Intermediate Microeconomic Theory and Applications (3)
- 32041, Intermediate Macroeconomic Theory and Policy (3)

TOTAL 18

Note: It is highly recommended that students electing the economics minor complete at least one mathematics course at the MATH 11011 level or at a higher level before registering for upper-division economics courses.

Minimum cumulative 2.00 GPA required.

English

Core Requirement

- ENG 25001, Literature in English I 3
- 25002, Literature in English II 3
- 30001, Introduction to English Studies 3

Electives 3

Distribution requirements 9

One course listed in the major from each of the following three areas:

- Historical courses
- Genre Studies, Cultural Studies, Literary Theory
- Writing and Language Studies

TOTAL *21

*At least 12 hours must be upper-division.

Minimum cumulative 2.00 GPA required.

French

Prerequisites:

- FR 13201, Elementary French I (4)
- 13202, Elementary French II (4)
- 23201, Intermediate French I (3)
- 23202, Intermediate French II (3)

Note: Prerequisites may be waived by demonstrated proficiency.

Courses:

FR	33215, French Phonetics and Diction	3
	33211, French Conversation	3
	33212, French Composition	3
	33421, French Civilization	3
	plus 3 hours at the 40000 level	3
	Two of the following:	6
FR	33335, Intro. to French Theatre (3)	
	33336, Intro. to French Poetry (3)	
	33337, Intro. to the French Novel (3)	
	TOTAL	21

Minimum cumulative 2.00 GPA required.

Geography

GEOG	10160, Intro. to Geography	3
	29160, Intro. to Maps and Map Analysis	3
	plus 15 hours in geography	15
	<i>at least 9 of which must be upper-division</i>	
	Choose one from:	3
GEOG	17063, World Geography (3)	
	17064, Geog. of the U.S. and Canada (3)	
	TOTAL	24

Minimum cumulative 2.00 GPA required.

Geology

Prerequisites:

CHEM 10060 (for which high school algebra or its equivalent is a prerequisite) is a prerequisite or corequisite for GEOL 23063; BSCI 10120 or 20560 is recommended as a prerequisite or corequisite for GEOL 34061.

Courses:

GEOL	11040, Earth Dynamics	3
	11041, Earth Dynamics Lab	1
	11042, Earth History	3
	11043, Earth History Lab	1
	23063, Mineralogy	4
	31070, Petrology	4
	32066, Geomorphology	4
	34061, Invertebrate Paleontology	4
	TOTAL	24

Minimum cumulative 2.00 GPA required.

German

Prerequisites:

GER 11201, 11202, Elem. German I, II (8)
21201, 21202, Intermed. German I, II (6)

Note: Prerequisites may be waived by demonstrated proficiency.

Courses:

GER	31201, Intensive German Grammar	3
	31303, Introduction to German Literature	3
	31211, Composition and Conversation	3
	31421, German Civilization	3
	plus 6 upper-division hours in culture and literature courses	6
	TOTAL	18

Minimum cumulative 2.00 GPA required.

German Studies

(Harold Fry, Coordinator, 109 Satterfield Hall)

The German studies program provides a concentration in German literature, language and culture. This program may be used as the studies emphasis area (core IV) in the ethnic heritage major.

A proficiency in German equivalent to that of GER 21202, "Intermediate German II," plus GER 31201, "Intensive German Grammar," is a prerequisite of the program and of the German literature and language courses included in it.

German Language

GER 31211, German Composition and Conversation 3

German Literature and Culture

GER 31303, Introduction to German Literature 3
31421, German Civilization 3
Plus one upper-division elective in German literature or culture 3

German History and Thought

Select two from: 6

HIST 41040, History of Germany, 1648-1871 (3)
41041, History of Germany, 1871-Present (3)
PHIL 31005, German Critical Philosophy (3)

TOTAL 18

Appropriate specialized offerings may be substituted above as available with approval of the German studies program coordinator.

Minimum cumulative 2.00 GPA required.

Greek

Prerequisites:

GRE 14201, Elem. Classical Greek I (4)
14202, Elem. Classical Greek II (4)

Note: Prerequisites may be waived by demonstrated proficiency.

Greek Language and Literature Courses:12

GRE 24201, Inter. Class. Greek I (3)
24202, Inter. Class. Greek II (3)
34370, Plato *Apology* and *Phaedo* (3)
34371, Homer (3)

Greek Culture Courses:6

CLAS 21404, The Greek Achievement (3)
41097, Colloquium in Classics (3)
41301, Classical Mythology (3)
41401, Greek Art and Arch (3)
41503, Greek Literature in Translation (3)

HIST 41003, History of Ancient Greece (3)
Any Greek course at the 30000-40000 level (3)

TOTAL 18

Minimum cumulative 2.00 GPA required.

Health-Care Ethics

(Deborah Barnbaum, Coordinator, 320 Bowman)

The health-care ethics program is a concentration of courses offered by disciplines within the university concerned with health care practices and the education of health care practitioners. The minor is designed to heighten students' awareness of what constitutes ethical concerns, problems and activity from the perspectives of various kinds of health care practitioners, clients and institutions. Various views of what constitutes the ethical are treated in the ethics courses so that the student is alerted both to the conceptual dimension of ethical activity and the existence of differing and conflicting modes of ethical reasoning, with the Health Care Ethics course attempting to sketch appropriate action in the light of these realities.

Students wishing to enter this program need to be certain that required prerequisites of many of the courses within the program are met.

Required courses: 15

BSCI 30050, Human Genetics 3
HED 21050, Health Behavior and Advocacy 3
SOC 42563, Sociology of Health and Health Care 3
PHIL 40005, Health Care Ethics 3

21001, Intro to Ethics 3

plus 9 additional hours from lists below 9

of which no more than 6 hours may be taken in any one cluster

Cluster I:

BSCI 20021, Basic Microbiology (3)
40020, Biology of Aging (3)

Cluster II:

SOC 42010, Death and Dying (3)

Cluster III:

HED 14020, Intro. to Med. Technology (2)
42041, Health Counseling (3)

Cluster IV:

PHIL * 21003, Ethics in Contemporary Contexts (3)

Cluster V:

HONR**30297, Junior Colloquium (3)
ILS***49993, Human Values in Medicine (1-5)

TOTAL 24

**PHIL 21003, Ethics in Contemporary Contexts (3), is recommended but not required for all health care ethics students.*

***Pertinent to health care issues. Restricted to honors students or with permission of instructor.*

****With prior approval of coordinator of the minor in health-care ethics.*

Minimum cumulative 2.00 GPA required.

Hellenic Studies

(S. Victor Papacosma, Coordinator, 321 Bowman Hall)

The Hellenic studies program provides a minor in Greek history, classical Hellenism and modern Hellenism. This program may be used as the studies emphasis area (core IV) in the ethnic heritage major.

History of Greece

HIST 41003, Hist. of Ancient Greece 3
31009, Hist. of Byzantine Civilization 3
31050, Hist. and Society of Modern Greece 3

Classical Hellenism

6-9 hours from: 6-9

CLAS 41503, Greek Literature in Translation (3)
41301, Classical Mythology (3)
41401, Greek Archaeology and Art (3)

or

ART 42031, Greek Art and Archaeology (3)
PHIL 31001, Ancient Greek Philosophy (3)
HIST 41004, Hellenic Contributions to Western Civilization (3)

Modern Hellenism

3-6 hours from: **3-6**

A&S 30095, Studies in the Eastern Christian World (3)

HIST 41049, History of the Balkans:
18th Century to 1914 (3)

41050, History of the Balkans: 1914 to Present (3)

41079, History of the Immigrant in America (3)

48997, Colloq. on the Immigrant in American History (3)

Individual investigation on one of the following: **3**

Byzantine Empire (3)

Modern Greece (3)

Greek Immigrants in America (3)

Appropriate specialized offerings may be substituted as available and with prior approval of the coordinator of Hellenic studies program.

Language Cognate: Ancient or Modern Greek 14
(or equivalent in proficiency) May be taken through either, or a combination of, GRE 14201, 14202, 24201, 34370, or GRE 14205, 14206, 24208, 24209. (These courses also fulfill core II of the ethnic heritage major.)

TOTAL 38

Minimum cumulative 2.00 GPA required.

History

HIST 11050, 11051, History of Civilization I, II 6

12070, History of U.S.: Formative Period 3

12071, History of U.S.: Modern Period 3

plus 12 upper-division hours 12
including at least: 3 hours of American History; 3 hours of European History, including English and Russian histories; 3 hours African, Ancient, Medieval or Far Eastern History.

TOTAL 24

Minimum cumulative 2.00 GPA required.

Jewish Studies

(David Brenner, Coordinator, 314 Satterfield Hall)

The Jewish studies program provides a concentration in Jewish history and literature, with related Middle Eastern coursework. This program may be used as the studies emphasis area (core IV) in the ethnic heritage major.

Each year, five \$4,000 scholarships will be awarded to students pursuing the minor program in Jewish studies. For more infor-

mation, contact the program coordinator or the Office of Student Financial Aid, Michael Schwartz Center.

Choose seven courses from the following **21**

Students are to complete 21 hours from the following, with at least one course from each of three of the four nonlanguage categories indicated:

Middle Eastern Studies

HIST 31125, Zionism and Israel (3)

31126, History of the Middle East (3)

Jewish History

HIST 31127, Ancient and Early Medieval Jewish History (3)

31128, Late Medieval and Modern Jewish History (3)

41129, The Holocaust: The Destruction of European Jewry, 1938-1945 (3)

38095, Selected Topics (3)

Jews in the Larger Society

HIST 41079, History of the Immigrant in America (3)

48997, Colloq. on the Immigrant in American History (3)

SOC 42095, Special Topics in Sociology (3)

Literature

ENG 35201, The Bible as Literature (3)

GER 23531, Yiddish Short Stories in Translation (3)

23532, Yiddish Drama in Translation (3)

41095, Special Topics: Jew in German Literature (3)

Appropriate specialized offerings may be substituted as available and with prior approval of the coordinator of the Jewish studies program.

Language Cognate:

HEBR 12101, 12102, 22104, 22105 14
or equivalent in proficiency. These courses also fulfill core II of the ethnic heritage major.

TOTAL 35

Minimum cumulative 2.00 GPA required.

Justice Studies

JUS 12000, Intro. to Justice Studies 3

22300, Police Role 3

26701, Corrections 3

26702, Criminology 3

12 upper-division JUS hours with the exception of: **12**

JUS 45093, Variable Title Workshop

45096, Individual Investigation

46792, Internship

TOTAL 24

Minimum cumulative 2.00 GPA required.

Latin

Prerequisites:

LAT 16201, 16202, Elem. Latin I, II (8)

Note: Prerequisites may be waived by demonstrated proficiency.

Latin Language and Literature Courses:12

- LAT 26201, Inter. Latin I: Readings (3)
- 26202, Inter. Latin II: Readings (3)
- 36170, Cicero (3)
- 36171, Vergil (3)

Roman Culture Courses:6

- CLAS 21405, The Roman Achievement (3)
- 41301, Classical Mythology (3)
- 41402, Roman Archaeology and Art (3)
- 41097, Colloquium in Classics (3)
- CLAS/HIST 41006, Roman History (3)
- Any Latin course at the 30000-40000 level (3)

TOTAL 18

Minimum cumulative 2.00 GPA required.

Lesbian, Gay, Bisexual and Transgendered Studies

(Robert J. Johnson, Coordinator, 215 Merrill Hall)

The lesbian, gay, bisexual and transgendered (LGBT) studies program is designed to allow students to explore sexuality and sexual minorities from a variety of perspectives. Students earning a minor in LGBT studies select courses (totaling 21 hours) from the following list. No more than 6 hours counted toward the major may also be counted toward the LGBT minor. Selected or special topics or variable content courses with LGBT content may be counted toward the minor if approved by the coordinator.

Requirements:

- A&S 22069, Introduction to LGBT Studies3
- 30196, Individual Investigation3

Block A - Select 3 courses*9

- MCLS 30376, The Novels of Pierre Loti (3)
- SOC 32565, Sociology of Gays and Lesbians (3)
- THEA 41114, Gay and Lesbian Theatre (3)
- A&S** 40095, Special Topics (3)
- SOC 42315, Sociology of Changing Gender Roles (3)
- or
- PSYC 40625, Development of Gender Role and Identity (3)

Block B - Select 2 courses*6

- AMST 10001, Intro. to American Studies (3)
- ANTH 48830, Human Behavioral Ecology and Evolution (3)

- HED 32544, Human Sexuality (3)
- 47070, AIDS: Issues, Education and Prevention (3)
- JUS 27311, Victimology (3)
- POL 40920, Politics of Social Movements (3)
- SOC 22778, Social Problems (3)
- 32560, Family and Other Intimate Lifestyles (3)
- 32570, Inequality in Society (3)
- 42359, Social Movements (3)
- 42400, Self and Identity (3)

TOTAL 21

Minimum cumulative 2.00 GPA required.

**Any Block A course can be used to fill the Block B requirement.*

***May be substituted with the approval of the coordinator.*

Lithuanian Studies

(David Brenner, Coordinator, 314 Satterfield Hall)

The Lithuanian studies program provides a concentration in Lithuanian history, culture and civilization. This program may be used as the studies emphasis area (core IV) in the ethnic heritage major.

Each year, a \$1,000 scholarship will be awarded to a student pursuing the minor/certificate program in Lithuanian studies. For more information, contact the coordinator of the program or the Office of Student Financial Aid, Michael Schwartz Center.

Lithuanian History

Choose one of:3

- HIST 41044, Russia from Its Origins to 1801 (3)
- 41045, Russia, 1801 to Present (3)

Choose one of:3

- HIST 45597, Colloq. in Russian History (3)
- 48997, Colloq. on the Immigrant in American History (3)
- GEOG 40195, Special Topics: Minorities in Soviet Union (3)
- A&S 40197, Russian Area Studies Colloq. (3)

Lithuanian Culture

Choose two of:6

- A&S 30095, Special Topics: Lithuanian Culture and Civilization (3)
- 30095, Special Topics: Lithuanian Literature (3)
- MUS 42141, Folk and Traditional Music of Western Continents (3)
- or
- Appropriate Lithuanian folk dance offering (3)

Appropriate specialized offerings may be substituted as available and with prior approval of the coordinator of Lithuanian studies.

Lithuanian Civilization6

- HRTG 30095, Special Topics (3)
- HRTG 30095, Special Topics (3)

Language Cognate: Lithuanian-HRTG

- HRTG 10101, 10102, 20201, 2020214

or equivalent in proficiency. These courses also fulfill core II of the ethnic heritage major.

TOTAL 32

Minimum cumulative 2.00 GPA required.

- 45011, Differential Geometry (3)
- 45021, Euclidean Geometry (3)
- 45022, Linear Geometry (3)
- 46001, Elementary Topology (3)
- 47001, Mathematical Logic and Set Theory (3)
- 47011, Theory of Numbers (3)

TOTALS 18

*Math 12001, which is a prerequisite for Math 12002, should be bypassed by students with sufficient background.

Minimum cumulative 2.00 GPA required.

Mathematics

Prerequisites:

- CS 10051, Introduction to Computer Science (4)
- MATH*12001, Algebra and Trigonometry (4)
 - 12002, Analytic Geometry and Calculus I (5)
 - 12003, Analytic Geometry and Calculus II (5)

Core Courses:

- MATH 21001, Linear Algebra with Applications 3
- 22005, Analytic Geometry and Calculus III 3

Choose one from:3

- 32044, Introduction to Ordinary Differential Equations (3)
- 41001, Introduction to Modern Algebra I (3)
- 42001, Introduction to Analysis I (3)

Elective Courses:9

Nine hours selected from the following (in any combination) in consultation with the student's minor adviser.

- MATH 32044, Introduction to Ordinary Differential Equations (3)
- 40011, Introduction to Probability Theory and Application (3)
- 40012, Introduction to Statistical Concepts (3)
- 40051, Topics in Probability Theory and Stochastic Processes (3)
- 41001, Introduction to Modern Algebra I (3)
- 41002, Introduction to Modern Algebra II (3)
- 41021, Theory of Matrices (3)
- 42001, Introduction to Analysis I (3)
- 42002, Introduction to Analysis II (3)
- 42011, Mathematical Optimization (3)
- 42021, Graph Theory and Combinatorics (3)
- 42031, Mathematical Models and Dynamical Systems (3)
- 42045, Introduction to Partial Differential Equations (4)
- 42048, Introduction to Complex Variables (3)
- 42201, Introduction to Numerical Computing I (3)
- 42202, Introduction to Numerical Computing II (3)

North Atlantic Security Studies

(Lyman L. Lemnitzer Center for NATO and European Union Studies, 124 Bowman Hall)

The Lyman L. Lemnitzer Center for NATO and European Union Studies has been established at Kent State to provide an institutional setting for the scholarly examination of the historical, political, economic, cultural and military experiences of the North Atlantic Treaty Organization. The North Atlantic security studies minor/certificate program is an interdisciplinary program combining courses focused on NATO and related security issues.

Core Courses (required) 3

- HIST 47597, Colloquium on NATO 3

Electives:18

18 hours chosen from at least two of the following areas:

- ECON 42075, International Economic Relations (3)
- POL 30520, European Politics (3)
- 30820, International Organization and Law (3)
- 40830, U.S. Foreign Policy (3)
- HIST 31029, History of British Empire and Commonwealth Since 1815 (3)
- 41024, Modern European History, 1914-1945 (3)
- 41025, Modern European History: 1945 to Present (3)
- 41045, Russia, 1801 to Present (3)
- 41050, History of the Balkans: 1914 to Present (3)
- 46597, Colloquium in 20th-Century European Diplomacy (3)
- GEOG 37066, Geography of Europe (3)

TOTAL 24

Note: No more than 9 hours counted for the minor may be in the major field.

Minimum cumulative 2.00 GPA required.

Pan-African Studies

Core Courses:

PAS 37000, Oral & Written Discourse in PAS 3
 37010, Research Methods in Pan-African Studies 3

Two courses from: 6

13001 and 13002, Foundations in Pan-African
 Studies I & II (6)
 or

23001 and 23002, Black Experience I, II (6)

Choose one from: 3

22200, Introduction to African Arts (3)
 34000, Introduction to African World View (3)

Choose one from: 3

35100, Afr. Am. Soc. Pol., & Econ. Systems (3)
 35200, Afr. Soc., Pol., & Econ. Systems (3)

Elective Courses: (upper division hours) 6

TOTAL 24

Minimum cumulative 2.00 GPA required.

Paralegal Studies

(Hedi Nasheri, Coordinator, 113 Bowman Hall)

Kent State University offers a minor in paralegal studies that has American Bar Association approval. Students may minor in paralegal studies in conjunction with a four-year baccalaureate degree. Paralegal studies is an interdisciplinary program in the College of Arts and Sciences and is conducted in the Department of Justice Studies. The program combines a liberal arts/general education background with law-related specialty courses to provide the graduate with communication skills, knowledge of the legal system and practical hands-on experience. Students receive a certificate upon completion of the minor and graduation. Classes are offered during the day and evening and sometimes on Saturday. Specialty courses are offered during summer school as well. Both full- and part-time students are welcome.

The paralegal studies program at Kent State University is designed to educate prospective paralegals in all areas of law. The program focuses on developing the critical reasoning, analytical skills and legal knowledge essential to succeed in today's paralegal and law-related occupations. Working closely with employers, graduates are placed in private law offices, public agencies, corporations, legal services and law-related occupations.

Category I

Must complete the following sequence of specialty courses:

JUS *18000, Intro. to Paralegal Studies 3
 * 28001, Legal Research and Writing 3
 * 28004, Prin. and Practice of Litigation 3

Must complete three from the following: 9

JUS * 28003, Family Law and Procedure (3)
 * 28007, Estate and Probate Administration (3)
 38003, Administrative Law and Process (3)
 38005, Tort Law (3)
 38006, Applied Legal Research and Litigation (3)
 47111, Civil Law and Procedure (3)

Category II

Must complete:

JUS 36792, Internship in Paralegal 3

Category III 9

Must complete 9 hours from the following law-related courses:

JUS 22100, Basic Interviewing (3)
 26704, Law and Society (3)
 33200, Criminal Law (3)
 34200, Criminal Procedures and Evidence (3)
 38007, Human Service Agencies and the Law (3)
 46706, Juvenile Justice (3)
 47211, Court Functions (3)
 FIN 26070, Introduction to Law (3)
 26074, Legal Environment of Business (3)
 36071, Critical Issues in Law Management (3)
 36073, Real Estate Law (3)
 POL 30301, Intro. to Public Admin. (3)
 30130, Courts (3)
 40182, Constitutional Law: Gov. Struc. and Func. (3)
 40183, Constitutional Law: Civ. Rights and Liberties (3)
 PHIL 31035, Philosophy and Justice (3)
 41025, Philosophy of Law (3)
 ACCT 33000, Fund. Tax Procedures (3)

or

Any specific course listed above not used to complete the specialty minor

TOTAL 30

*Justice studies courses with the asterisk are to be cross-listed as LEGT (Legal Assisting Technology).

Note: A maximum of 9 credit hours from the major may be used to complete the requirements of the minor in paralegal studies.

Minimum cumulative 2.00 GPA required.

Philosophy

Core Courses:

three courses from: 9

- PHIL 11001, Intro. to Philosophy (3)
- 11009, Principles of Thinking (3)
- 21001, Intro. to Ethics (3)
- 21002, Intro. to Formal Logic (3)

Elective Courses:

four additional philosophy courses 12

At least three of these courses must be upper division. The fourth core course may be elected. At least one course in the history of philosophy must be included:

- PHIL 31001, Ancient Greek Philosophy (3)
- 31002, Medieval Philosophy (3)
- 31003, Continental Rationalism (3)
- 31004, British Empiricism (3)
- 31005, German Critical Philosophy (3)
- 31006, 19th-Century Philosophy (3)
- 31010, 20th-Century Philosophy (3)
- 31020, American Philosophy (3)

At least one course must be at the 4000-level.

PHIL 40093, 49996 and 49999 may not be counted toward the minor.

TOTAL 21

Minimum cumulative 2.00 GPA required.

Physics

Prerequisites:

- MATH 12001, Algebra and Trigonometry (4)
- 12002, 12003, Analytic Geometry and Calculus I, II (10)

Courses:

- PHY 23001, 23002, 23003, Univ. Physics Frontiers I, II, III . 10
- 30020, Intermediate Physics Lab 2
- 35101, Mechanics I 3
- 36001, Introductory Modern Physics 3
- plus 5 hours in physics 5

at least 2 of which must be upper division

TOTAL 23

Minimum cumulative 2.00 GPA required.

Political Science

Core Courses:

- POL 10100, American Politics 3
- plus 12 upper-division hours in Political Science* 12

Two courses from: 6

- POL 10001, Introduction to Political Science (3)
- 10004, Comparative Politics (3)
- 30001, Political Methods (3)
- 30002, Political Thought (3)
- 30003, Political Economy (3)

TOTAL 21

**POL 40996, Individual Investigation, and POL 40992, Public Service, may not be applied toward the upper-division hour requirement; POL 40991, Washington Program in National Issues and POL 30991, Sem: Columbus Program in Intergovernmental Issues, may be applied to meet the upper-division hour requirement; POL 40995, Special Topics, may be applied to meet the upper-division hour requirement as approved by the department.*

Minimum cumulative 2.00 GPA required.

Pre-Law

(Thomas Hensley, Coordinator, 302 Bowman Hall)

No specific course of study is required for admission to law school. Most law schools, including all in Ohio, require a bachelor's degree for admission. The bachelor's degree may be from any discipline or college at Kent State University.

Law schools emphasize the value of reading comprehension, analytical skills, and a good command of written English. While these skills can be obtained in various ways, a general liberal arts background is recommended; other fields such as business are also useful. Courses in literature, American history and government are considered essential. Many prelaw students choose a major in political science, history, sociology, psychology, economics or English. A B.G.S. degree is suitable if carefully planned.

The pre-law minor is designed to provide a background for the study of law through challenging coursework that reinforces and extends the liberal arts foundation gained through the LERs, that provides advanced analytical and writing skills, and that introduces the student to the social and governmental structures that

underlie the law. This minor may be combined with any major or field of concentration.

Law schools vary considerably in their admission requirements. Most place major emphasis on the overall GPA and the Law School Admission Test (LSAT) score. Students usually take this test about one year before beginning law school, but it is highly recommended that students take the exam in June before their last year as an undergraduate.

Students considering law as a career should seek individual advising from the prelaw advisers in the Department of Political Science or in the students' major department. A list of prelaw advisers is available in the college office. Consultation with a prelaw adviser is urged, regardless of the students' major, minor or college. The Department of Political Science also has available LSAT registration packets, prelaw planning guides, information on law school admissions of Kent State University students and financial aid information. The department maintains a file of law school catalogs and also sponsors a prelaw club. Opportunities also exist for students to participate in mock trial and moot court activities as well as legal internships. The Department of Philosophy and the College of Continuing Studies also offer an LSAT Preparation Course before the June and October offerings of the LSAT. A bulletin board with law school and prelaw information is located on the third floor of Bowman Hall near the Department of Political Science.

II. Required courses:12

ENG 30064, Argumentative Prose3

PHIL 11009, Principles of Thinking3

21001, Introduction to Ethics3

21002, Introduction to Formal Logic3

II. Elective Courses:12

Students must take at least one course from each of the following four areas:

Business:3

ACCT 23020, Introduction to Financial Accounting (3)

ECON 22060, Principles of Microeconomics (3)

42295, Special Topics: Law and Economics (3)

FIN 26074, Legal Environment of Business (3)

History and Philosophy:3

HIST 41057, Eighteenth-Century America: 1714-1789 (3)

41058, Jefferson-Jackson Era, 1789-1848 (3)

41069, Recent America: U.S. 1929 to Present (3)

41082, Constitutional History of the United States (3)

PHIL 31035, Philosophy and Justice (3)

41025, Philosophy of Law (3)

English:3

ENG 30001, English Studies (3)

33001, U.S. Literature to 1865 (3)

33002, U.S. Literature from 1865 to 1945 (3)

33003, U.S. Literature from 1945 to Present (3)

33011, African-American Literature (3)

Social Science:3

CACM 34040, Negotiation (3)

43030, Mediation: Theory and Training (3)

JUS 33200, Criminal Law (3)

47111, Civil Law and Procedure (3)

47211, Court Functions (3)

POL 30100, American Political Theory (3)

30130, Courts (3)

40182, Constitutional Law - Government Powers (3)

40183, Constitutional Law - Civil Rights and Liberties (3)

TOTAL 24

No more than two courses counted toward the students' major may also be counted toward the pre-law minor.

It is recommended that students pursuing the pre-law minor give strong consideration to the following courses in fulfillment of the LERs or college General Requirements: In the humanities and fine arts category, HIST 12070 and 12071, COMM 15000 and 26000, and PAS 23001 and 23002; in the social sciences category, JUS 12000, ECON 22061 and POL 10100. Students are strongly encouraged to consider prerequisites of advanced courses in the pre-law minor as they select their LERs or college General Requirements.

Minimum cumulative 2.00 GPA required.

Psychology

PSYC 11762, General Psychology3

21621, Quantitative Methods in Psychology3

31574, Research Methods in Psychology3

plus any 9 upper-division hours9

TOTAL 18

Note: No more than 3 credit hours of PSYC 31498, 41495, 41498 and 41574 combined may be applied toward minor requirements in Psychology.

Minimum cumulative 2.00 GPA required.

Religion Studies

(David Odell-Scott, Coordinator, 320-M Bowman Hall)

The religion studies program relates various approaches and topics to a study of religion and of the expressions and impact of religion within human societies and cultures. In addition to the required core courses, students must elect one of the two cognate options. In the general option, the students may choose from among a rich variety of courses ranging from fine arts to hard sciences.

No more than 6 hours of coursework counted toward the major may be also counted toward the religion studies minor.

I. CORE STUDIES12

Students are to complete four courses (12 credits) selected from among at least three of the categories below:

Judaean-Christian Tradition:

- ENG 35201, The Bible as Literature (3)
Students selecting Option B below must take this course.

Comparative Religion:

- A&S 30095, Special Topics: Studies in the Eastern Christian World (3)
- 30095, Special Topics: Varieties of Religion (3)
- PAS 34000, Intro. to African World View (3)
- PHIL 21020, Comparative Religious Thought I (3)
- 21021, Comparative Religious Thought II (3)

Social Patterns of Religion:

- ANTH 38250, Religion: A Search for Meaning (3)
- SOC 42561, Religion: Sacred and Secular Perspectives (3)

Philosophy of Religion:

- PHIL 31065, Phil. of Religious Exper. (3)
- 41010, Problems in the Philosophy of Religion (3)

II. COGNATE STUDIES9-12

Students select either Option A (General) or Option B (Catholic Thought)

A. GENERAL

Choose 9 hours, at least two areas must be represented.

Religion and The Arts:

- ART 22006, 22007, Art History I, II (6)
- 42036, Medieval Art (3)
- MUS 42271, Choral Literature: The Anthem (3)
- 42331, Music in Worship (3)
- 42111, African Music and Cultures (3)
- 42151, Asian Musics (3)

Religion and The Sciences:

- GEOG 32061, Cultural Geography (3)
- GEOL 11040, Earth Dynamics (3)
- PHY 11030, Seven Ideas that Shook the Universe (3)

Religion and History:

- HIST 31009, History of Byzantine Civilization (3)
- 31127, Ancient and Early Medieval Jewish History (3)
- 41097, Colloquium: Saints, Monks, and the Medieval Community (3)
- 41016, The Protestant and Catholic Reformations (3)

Religion and The Classics:

- CLAS 41301, Classical Mythology (3)
- 41503, Greek Literature in Translation (3)
- HIST 41004, Hellenic Contributions to Western Civ. (3)
- PHIL 31001, Ancient Greek Philosophy (3)

B. CATHOLIC THOUGHT

Choose 11-12 hours, at least one course from each area.

English:

- ENG 31055, Literature and Other Disciplines (3)
- A&S 3/40095, Special Topics: Classics of Christian Lit. (3)
- 3/40095, Special Topics: Myth and Religion in Literature (3)

History/Arts and Sciences:

- HIST 41016, Protestant and Catholic Reform. (3)
- A&S 3/40095, Special Topics: Modern Catholic Thought (3)

Classics:

- HEBR 12101, Elem. Hebrew I (4)
- 12102, Elem. Hebrew II (4)
- GRE 14201, Elementary Classical Greek I (4)
- 14202, Elementary Classical Greek II (4)
- GRE 34351, New Testament in Greek (3)

TOTAL	21-24
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Minimum cumulative 2.00 GPA required.

Romanian Studies

(Glee E. Wilson, Coordinator, 321 Bowman Hall)

The Romanian studies program provides a concentration in Romanian civilization, language and history. This program may be used as the studies emphasis area (core IV) in the ethnic heritage major.

Romanian Civilization

- GEOG 37050, Geography of Russia and the Commonwealth States 3
- HIST 31051, Romanian Civilization 3
- Appropriate political science offering 3

Romanian Language and Literature

- Special Topic—(as available) 3-6

Language Cognate

- HRTG 10101, 10102, 20201, 2020214

or equivalent in proficiency. These courses also fulfill core II of the ethnic heritage major.

Studies in Romanian Civilization* 6-9

6-9 hours of the following when appropriate topics pertinent to Romania or Romanian culture and civilization are offered.

HIST	38095, Selected Topics in History: Romania (3)	
	38997, Colloquium in History: Romania (3)	
	41079, History of the Immigrant in America (3)	
	48997, Colloq. on the Immigrant in American History (3)	
	49196, Individual Investigation-Romanian History (3-5)	
POL	40996, Individual Investigation (appropriate topic) (1-3)	
Cognate Area* At least one of two (if only 6 hours above): . . . 3-6		
HIST	31009, History of Byzantine Civilization (3)	
	41003, History of Ancient Greece (3)	
	41006, Roman History (3)	
	41010, The Early Middle Ages (3)	
	41044, Russia from its Origins to 1801 (3)	
	41045, Russia: 1801 to Present (3)	
	41049, Balkans to 1914 (3)	
	41050, Balkans: 1914 to Present (3)	
EXPR	30295, Special Topics: History of Orthodox Church (3)	
		TOTAL 35

*Appropriate specialized offerings may be substituted as available and with prior approval of the coordinator of the Romanian studies program.

Minimum cumulative 2.00 GPA required.

Russian

Prerequisites:

RUSS	12201, 12202, Elem. Russian I, II (8)	
	22201, 22202, Intermed. Russian I, II (6)	

Note: Prerequisites may be waived by demonstrated proficiency.

Courses:

RUSS	32207, Russian Conversation 2	
	32211, Composition and Conversation 3	
	32303, Modern Writers 3	
	32421, Russian Civilization 4	
	plus 6 upper-division hours in literature courses 6	
		TOTAL 18

Minimum cumulative 2.00 GPA required.

Russian Studies

(Brian Baer, Coordinator, 308-B Satterfield Hall)

The Russian studies program provides a concentration in Russian literature, language and culture. This program may be used as the studies emphasis area (core IV) in the ethnic heritage major.

A proficiency in Russian equivalent to that of RUSS 22202, "Intermediate Russian II," plus RUSS 32207, "Russian Conversation," is a prerequisite of the program and of the Russian language and literature courses included in it.

Russian Literature and Culture

RUSS	32303, Modern Writers 3
	32421, Russian Civilization 4
	One upper-division Russian literature elective 3
	RUSS 32325, Russian Poetry and Folklore, recommended

Russian Language

RUSS	32211, Composition and Conversation 3
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Russian History

HIST	41044, Russia from its Origins to 1801 3
	41045, Russia: 1801 to Present 3

Soviet Period: One of the following: 3

GEOG	32061, Cultural Geography (3)	
A&S	40197, Russian Area Studies Colloquium (3)	
Appropriate specialized offerings such as GEOG 40195, Special Topics: The Peoples of the U.S.S.R. and East Europe (3) or PHIL 49995, Special Topics: Marxism (3) may be substituted above as available with approval of the Russian Studies program coordinator.		
		TOTAL 22

Minimum cumulative 2.00 GPA required.

Sociology

SOC	12050, Intro. to Sociology 3	
	22100, Sociological Analysis 3	
	plus 15 hours in sociology 15	
		TOTAL 21

Minimum cumulative 2.00 GPA required.

Spanish

Prerequisites:

- SPAN 18201, Elementary Spanish I (4)
- 18202, Elementary Spanish II (4)
- 28201, Intermediate Spanish I (3)
- 28202, Intermediate Spanish II (3)

Note: Prerequisites may be waived by demonstrated proficiency.

Courses:

SPAN 38211, Spanish Grammar and Composition	3
38213, Spanish Reading and Conversation	3
38215, Spanish Phonetics and Diction	3
plus 3 hours at the 40000 level	3
Choose one from:	3
SPAN 38330, Early Spanish Literature (3)	
38331, Recent Spanish Literature (3)	
Choose one from:	3
SPAN 38334, Early Spanish-American Literature (3)	
38335, Recent Spanish-American Literature (3)	
Choose one from:	3
SPAN 38421, Civilization of Spain (3)	
38424, Culture and Civilization of Latin America (3)	
TOTAL	21

Minimum cumulative 2.00 GPA required.

Urban Studies and Planning

(David Kaplan, Coordinator, 440 McGilvrey Hall)

The urban studies and planning program provides a focus in the development, structure and government of cities, with an emphasis on effective planning. In addition to the required core courses, students must complete a minimum of 6 hours in departments other than the major department from among the elective courses listed below. The electives chosen must be approved by the urban studies and planning adviser and all appropriate prerequisites must be met.

Core Courses:

- ECON 42081, Urban Economics 3
- GEOG 36065, Cities and Urbanization 3
- POL 30450, Metropolitan Governance 3
- SOC 32673, Urban Processes and Life Styles 3

Elective Courses: Choose two from: 6

- ECON 32084, Economics of the Environment (3)
- GEOG 45085, Urban Transportation (3)
- 46035, Marketing Geography (3)
- 46065, Advanced Urban Geography (3)

- 46070, Urban and Regional Planning (3)
- 46092, Internship in Geography and Planning (6)
- 49480, Field Studies in Geography (3)

One appropriate statistics course (3)

Offered by management and information systems, geography, mathematical sciences, political science, sociology.

TOTAL 18

Minimum cumulative 2.00 GPA required.

Women's Studies

(Kathe Davis, Director, Women's Studies Program, Women's Resource Center)

The women's studies program is designed to allow students to explore the position of women in human society from a variety of perspectives. Students earning a minor in women's studies select courses (totaling 21 hours) from the following list. No more than 6 hours counted toward the major may also be counted toward the women's studies minor. Courses with women's studies topics offered by the experimental program with the course number 30295 may be counted toward the minor, if approved by the coordinator; no more than two such courses may be counted. Other selected or special topics or variable content courses with women's studies topics may be counted toward the certificate if approved by the coordinator.

I. One of the following: 3

- A&S 30000, Colloquium in Women's Studies (3)
- 30001, Colloquium: Feminisms (3)

Remaining course A&S 30000 or A&S 30001 may be applied to section II.

II. At least 15 hours from the following: 15

- A&S 40992, Practicum in Women's Studies (3)
- COMM 35912, Gender and Communication (3)
- ENG 21002, Introduction to Women's Literature (3)
- 34021, Women's Literature (3)
- HDFS 44022, Changing Roles of Man and Woman (3)
- HED 32544, Human Sexuality (3)
- 44025, Women's Health Issues (3)
- JUS 37411, Women in Crime and Justice (3)
- LEST 36085, Leisure and Culture (3)
- PAS 33110, The Black Woman: Historical Perspectives (3)
- PEP 25059, Sport in Society (3)
- PHIL 31040, Women and Philosophy (3)
- 32091, Seminar: Woman's Ways (3)
- 32091, Seminar: Ethics of Sex and Gender (3)
- POL 40470, Women and Politics (3)

PSYC 40625, Development of Gender Role and Identity (3)
 SOC 42315, Sociology of Changing Gender Roles (3)
III. Guided Independent Study:3
Students register for A&S 30196, Individual Investigation, a guided independent project with a written and oral report. Admission controlled. See women's studies coordinator for further information.

TOTAL 21

Minimum cumulative 2.00 GPA required.

The Writing Minor

(Department of English, 113 Satterfield Hall)

No coursework in this program may be taken pass-fail. The writing minor is intended to provide academic recognition to students who have demonstrated their ability in writing. The minor will help students establish eligibility for graduate programs in writing. It is also evidence of training that may be offered to prospective employers.

Students must have a 3.00 GPA in writing courses, junior standing and permission from the Department of English before enrolling in the required portfolio course.

Writing Courses:

ENG * 40010, Writing Portfolio2
Choose four from:12

No more than two at the 20000 level:

- ENG * 20001, Business Writing (3)
- * 20002, Introduction to Technical Writing (3)
- * 20021, Intro. to Creative Writing (3)
- * 30063, Advanced Business and Professional Writing (3)
- * 30064, Argumentative Prose Writing (3)
- * 30065, Expository Prose Writing (3)
- * 30067, *30068, Fiction Writing I, II (3 each)
- * 30069, *30070, Poetry Writing I, II (3 each)
- JMC * 40037, Scriptwriting for Video and Film (3)
- PAS * 24093, Black Writer's Workshop (3)
- THEA 41026, Playwriting (3)
- * 41027, Advanced Playwriting (3)

Cognate Courses: Choose three from:9-11
At least one from each of the following groups and no more than one at the 20000 level:

Group A: Language and Literary Criticism

- ENG * 31001, Fundamental English Grammar (3)
- * 31002, History of the English Language (3)
- * 31003, Linguistics (3)
- * 31095, ST: Linguistics (3)

- * 39595, ST: Literary Criticism (3)
- * 36001, Literary Criticism (3)
- MCLS*30230, Approaches to Translation (3)
- PSYC* 40461, Psychology of Language (3)
- Group B: Theory and Practice of Communication**
- COMM*25464, Argumentation (3)
- 25902, Communication Theory (3)
- * 35252, Theories of Rhetorical Discourse (3)
- ENG * 41096, Indiv. Invest.: Kent State University Press Internship (3)
- * 49095, Sr. ST: Writing Internship Program (3)
- JMC 20001, Media, Power, and Culture (3)
- * 20004, Media Writing (3)
- * 40022, Film as Communication (3)
- PHIL * 31060, Aesthetics (3)
- * 41080, Philosophy and Art in the Modern Age (3)

TOTAL 23-25

**Courses marked above with * have prerequisites that must be taken prior to enrollment. See the Catalog for prerequisite information.*

Note: Students may apply to the program coordinator for permission to use special topic courses and other appropriate courses not listed in the curriculum to satisfy the cognate requirement. Students in the College of Fine and Professional Arts may request that specific courses in art, music, journalism and mass communication, or communication studies be accepted as meeting the two cognate area requirements.

Minimum cumulative 2.00 GPA required.

MINORS IN OTHER COLLEGES/SCHOOLS

In addition to the departmental minors and the interdisciplinary minors listed in the previous two sections, undergraduate students in the College of Arts and Sciences may select from a wide range of minors offered by other colleges and schools at Kent State University.

Education Minor

The minor in education is intended to allow students pursuing a traditional liberal arts degree to prepare for public school teaching. It is available only to students in those areas where the state of Ohio issues teaching licenses. The minor provides the professional coursework necessary for licensure.

Eligibility and Admission

The education minor is open to students pursuing a B.A./B.S. degree who are majoring in a teaching field such as American Sign Language, biology, earth science, French, German, Latin,

mathematics, Russian or Spanish. The College of Education does not offer single licenses in English or individual social science areas (economics, geography, history, political science, psychology or sociology); however, students majoring in one of those disciplines may be able to pursue licensure in the field of language arts or social studies. Students interested in a Social Studies license or Integrated Language Arts license should consult the College of Education about that possibility.

It should be noted that in many instances the combination of requirements for the education minor and for the field of concentration in the B.A. or B.S. degree program may total more than the 121 semester hours required for graduation. In such cases, students should expect to complete more than 121 hours.

Students entering the education minor must become familiar with the College of Education's professional requirements for admission to advanced study. Students must have completed all professional requirements, have a 2.50 cumulative GPA, a 2.75 GPA in the licensure content area with no grade lower than C, and be admitted to advanced study in order to take upper-division professional education coursework, qualify for student teaching, graduation and licensure.

Students wishing to pursue this minor must complete an application with a program counselor in the College of Education, 306 White Hall, by appointment. Students are not enrolled in this minor until they have met all admission requirements and followed all admission procedures.

Satisfactory completion of the education minor requirements including qualifying scores on the Praxis II, as stipulated by the College of Education, licenses the graduate to teach in the state of Ohio. Formal application for licensure must be submitted to the College of Education, 306 White Hall.

Course Requirements

Students majoring in program areas of other colleges but pursuing teacher licensure in the state of Ohio must complete the following education minor:

EDPF	19525, Inquiry into the Profession	4
	29525, Inquiry into Teaching and Learning . . . . .	.3
	39525, Inquiry into Schooling . . . . .	.3
*xxxx	49525, Inquiry into Professional Practice . . . . .	.3
	course in the student's major department	
ADED	**42357, Secondary Student Teaching . . . . .	.5
	**42358, Student Teaching	4
**	***Methods courses in the student's major area . . . . .	.6

***Area-specific courses (cohort seminars)	9
TOTAL	37

*Students in foreign languages take MCLS 40525, Inquiry into Professional Practice (3).

**Students in foreign languages take MCLS 40657, Student Teaching of a Second Language (9).

***Students in foreign languages take the following courses: MCLS 30660, Orientation to Foreign Language Pedagogy (3) and MCLS 40660, Methods of Teaching Foreign Language (3).

****Students in foreign languages take the following courses: MCLS 40420, Foreign Languages and Culture Studies (3) MCLS 40654, Computers in Second Language Teaching (3) PSYC 40461, Psychology of Language (3)

Note: PSYC 11762 is a prerequisite for professional requirements and may be used to meet an LER in the social sciences.

Note: College of Arts and Sciences students pursuing licensure in a science area must satisfy College of Education program math requirements as well as the College of Arts and Sciences Mathematics or Logic General Requirement.

Program Requirements

- A. The professional hours in the minor include student teaching (not available during summer session).
- B. When a difference exists between the two colleges' major requirements in teaching fields, students must also complete the specific major sequences required by the College of Education. This ensures that the students will meet licensure requirements.
- C. In order to be admitted to student teaching, students must attain a 2.75 cumulative GPA, a 2.60 GPA in the adolescence to young adult education content area with no grade lower than C, and must have grades of C or better in all professional coursework.
- D. In order to qualify for Ohio licensure, students must maintain a 2.75 cumulative GPA, a 2.60 GPA in the adolescence to young adult education content area with no grade lower than C, and pass the appropriate parts of the Praxis II exam.

Business Administration

The following minors within the College of Business Administration are available to all undergraduate students at Kent State University. Please see Pages 189-194 for program requirements.

- Accounting
- Business
- Computer Information Systems

Economics
 Finance
 Human Resource Management
 International Business
 Management
 Marketing
 Military Studies

Communication and Information

The following minors within the College of Communication and Information are available to all undergraduate students at Kent State University. Please see Pages 204-205 for program requirements.

Advertising
 Communication Studies
 Design
 Electronic Media
 Media Literacy
 Photo Illustration
 Public Relations
 Visual Journalism

Education

The following minors within the College of Education are available to all undergraduate students at Kent State University. Please see Page 264 for program requirements.

Community Health Education
 Human Sexuality

Fine and Professional Arts

The following minors within the College of Fine and Professional Arts are available to all undergraduate students at Kent State University. Please see Pages 276-278 for program requirements.

Art History
 Crafts
 Dance*
 Family, Food and Nutritional Studies
 Gerontology
 Hospitality Food Service Management
 Music*
 Studio Art
 Theatre

**Auditions are required before acceptance into the dance or music minors.*

School of Exercise, Leisure and Sport

The following minors within the School of Exercise, Leisure and Sport are available to all undergraduate students at Kent State University. Please see Pages 299-301 for program requirements.

Athletic Coaching—Non-PE Majors
 Leisure Studies
 Sport Management for Non-Majors
 Sports Medicine

Technology

The following minors within the School of Technology are available to all undergraduate students at Kent State University. Please see Page 346 for program requirements.

Electronic Technology
 Flight Technology
 Technology

To successfully complete a minor in another college, arts and sciences students must meet the cumulative GPA requirement for that minor.

THE LIBERAL ARTS AS A CAREER BASE

Study in the liberal arts can provide an excellent basis for a wide range of careers. A liberal arts program acquaints students with many different areas of human thought, behavior and experience. It can provide communication skills, analytical abilities and flexibility necessary for success in many fields of endeavor. Although some careers require specialized undergraduate training (for example, nursing and accounting), many others rely on a broad base of skills and knowledge. It has been predicted that today's college graduates will change careers an average of four times during their working lives. Such changes will involve not only new jobs but also entirely new responsibilities and duties. Changes of this sort require flexibility and adaptability. One of the most important functions of a liberal arts education is to provide a broad knowledge base to make such flexibility and adaptability possible. Students with a sound background in the liberal arts will have the knowledge base required to shift directions and adapt thinking skills learned in one discipline to a variety of work fields.

The liberal arts also provide a good basis for advanced study. Students who pursue a major in the liberal arts may go on to graduate work in that or a related discipline. Many students pursue professional training through graduate programs in medicine, law, business and other areas upon completing a liberal arts degree. A liberal arts undergraduate program can provide both the preparation for such specialized advanced training and a general, broad background that supports and enhances professional work.

In addition, study in the liberal arts provides the foundation for life-long learning. A broad knowledge base promotes intellectual curiosity and continued intellectual growth. Students with a good liberal arts education have a foundation for enriching their lives immeasurably with interests that go far beyond the demands of a particular career.

Programs Available

Students may prepare for a wide range of careers through many programs offered in the College of Arts and Sciences. In addition, students may combine coursework in the liberal arts with related programs in other colleges; some of those related programs are mentioned below.

Majors and Minors

The majors and fields of concentration offered in the College of Arts and Sciences (described earlier in this section of the *Catalog*) provide a sound basis in the liberal arts. This includes both traditional majors and interdisciplinary programs. In addition, the major may be enhanced by the addition of a minor program. The B.G.S. also requires a sound liberal arts base.

Certain majors and minors provide specific preparation for particular careers. For example, the various premedical majors prepare students for professional training in medicine. A major in justice studies can prepare students for work in corrections, police administration, the court system or other related fields. The writing program (minor) provides skills of particular use in any career that requires written communication. Work in geology, geography or cartography can prepare students for certain jobs with government agencies. Most programs in the liberal arts, however, are not tied to specific, individual careers. Instead, they provide the background upon which the career is built.

Electives and Enrichment

Students pursuing a degree in the College of Arts and Sciences will have a certain number of elective hours available. If carefully chosen, these electives can greatly enhance students' programs. Electives may profitably be used to acquire specialized training needed for a particular career. Alternatively, electives may be used for personal enrichment—to pursue areas of interest outside the intended career field. Electives chosen purely from personal interest may turn out to have an unexpected value in the future, such as when a career change develops.

Non- and Postdegree Study

Students who are not pursuing a degree or who have already received an undergraduate degree may also take coursework in the liberal arts. Subject to restrictions described above in the sections on admissions and registration, students may pursue such coursework for personal enrichment or for added preparation for a particular career.

Some Options Within Fields

The College of Arts and Sciences offers certain options within general fields of study; these fields of study can also include programs in other colleges. Some of these options are offered through regular majors, while others are programs outside the scope of a major.

Computer Science/Information Systems Programs

Students interested in careers in computer science and information systems have several options at Kent State University. Within the College of Arts and Sciences, they may pursue the B.S. degree in computer science offered by the Department of Computer Science. This program is described above in the Bachelor of Science section.

Also in the College of Arts and Sciences, students pursuing the B.S. degree in physics may elect the computer hardware systems option in that program. This option introduces students to the basic concepts and techniques used in designing and implementing computer systems for measurement and control processes. This option also introduces the students to the use of computer systems in a real-time environment. This option is described above in the section on B.S. programs.

In the College of Business Administration, students may pursue a degree in information systems. This program is offered through the Department of Management and Information Systems; it is described in the Business Administration section of this *Catalog*.

For further information about any of these computer science options, students should consult the Departments of Computer Science, Physics, and Management and Information Systems, respectively.

Health-Related Programs

Kent State University has particularly strong programs in areas related to health. In the College of Arts and Sciences, programs in premedicine, preosteopathy, preveterinary medicine and predentistry are offered. These programs must be taken in conjunction with a second major or field of concentration. They are described in this section of the *Catalog* under Premedical Programs. These programs are intended to provide specific preparation for advanced professional training in medicine. They can also be used, however, as general background for other areas of work related to health.

In addition, the College of Arts and Sciences offers a Three-Plus-One program in medical technology. This program, which combines three years of study at Kent State University with a year of clinical study in an area hospital, is intended to prepare students for direct entry into careers in medical technology. This program is described above under Three-Plus-One Program.

The College of Arts and Sciences, in cooperation with the Northeastern Ohio Universities College of Medicine, also offers a six-year program leading to the combined degrees of B.S. in integrated life sciences and Doctor of Medicine. Further information about this program is given above under Integrated Life Sciences Six-Year Medical Program.

Students interested in careers related to health should also consider programs offered elsewhere in the university and described in other sections of this *Catalog*. The College of Nursing offers a program leading to a B.S. in nursing, and several of the Regional Campuses offer two-year programs leading to the degree of Associate of Applied Science in Nursing. In addition, programs in community health education and community health are offered through the College of Education.

Students interested in any of the health-related programs offered through the College of Arts and Sciences may obtain further information about those programs from the office of the College of Arts and Sciences, 105 Bowman Hall. Information about programs in nursing and health education may be obtained from the Colleges of Nursing and Education, respectively.

Teaching Programs

Students with an interest in college or university teaching as a career should prepare for several years of postgraduate study leading to the Ph.D. In the physical sciences, the biological sciences and mathematical sciences, the B.S. degree is generally considered appropriate for students who wish to enter Ph.D. programs. Superior students with the B.A. degree may also, however, be admitted to such science and math programs. In other areas, the B.A. is the usual degree required for admission to a Ph.D. program. A B.G.S. degree may also be acceptable for admission to graduate studies, if it includes a significant focus in the appropriate discipline or in related fields. Students interested in pursuing graduate work should seek extensive and detailed advice from faculty members in the field they are considering.

Students who want to teach in one of the traditional disciplines on the high school level may choose either of two routes toward that goal. They may pursue a degree through the College of Education, with a major in the chosen teaching field. Alternatively, for certain fields, they may pursue a degree in the College of Arts and Sciences with a major in the desired teaching field, and at the same time

complete a minor in education. Satisfactory completion of the arts and sciences degree, along with the minor in education, will lead to certification for high school teaching in the state of Ohio. Further information about this program is contained above in the section Minors in Other Colleges. Students interested in pursuing a degree in arts and sciences with a minor in education should seek early advice from both the College of Arts and Sciences and the College of Education. Students should note College of Education GPA requirements.

Nonmajor Preprofessional Advising Programs

The College of Arts and Sciences provides advising programs for students preparing for professional training elsewhere. These advising programs are of two sorts: the first is intended for students who wish to pursue a professional undergraduate program, and the second is intended for those who wish to pursue professional study on the graduate level.

Advising programs for students preparing for undergraduate professional study are available in pre-engineering and prepharmacy. These programs are designed for students who wish to take one or two years of coursework at Kent State University before transferring to another institution with specialized undergraduate programs not available here.

Students preparing for graduate professional study in law or library science are also advised through nonmajor advising programs. These advising programs will help students make the appropriate choice of courses and prepare for professional study.

Pre-engineering

(Bryon Anderson, Adviser, Department of Physics)

Students who wish to prepare for a career in engineering may begin their studies at Kent State University. They should, however, be thoroughly acquainted with the admission requirements of the schools of engineering to which they plan to apply. Curriculum information may be obtained from the pre-engineering adviser in the Department of Physics, the pre-engineering Web site (<http://phys.kent.edu/pre-eng/>), or from the college office.

Prepharmacy

(Chun-Che Tsai, Adviser, Department of Chemistry)

Up to two years of prepharmacy study may be completed at Kent State University by taking basic academic courses through the College of Arts and Sciences. Prepharmacy students are encouraged to take the courses listed below to enhance their opportunities to enter a pharmacy school:

BSCI 10120, 20140, 30030, 30171 and 30518
CHEM 10060, 10061, 10062 and 10063; or 10960 and 10961
CHEM 30475, 30476, 30481 and 30482
ENG 10001, 10002
MATH 12001, 12002, 12003
PHY 13001, 13002, 13021 and 13022;
or 23101 and 23102.

Remaining coursework should be selected from the social sciences (see LER listings in anthropology, economics, geography, political science, psychology and sociology; most pharmacy schools also consider history to fall into this category), and from the humanities (see LER listings for English, philosophy and fine arts).

All students should be familiar with the requirements of the school of pharmacy that they plan to apply to and attend, and should consult immediately on entering the university with the prepharmacy adviser in the Department of Chemistry or with the college office.

Prelibrary Science

(Rhonda S. Filipan, Academic Program Coordinator,
School of Library and Information Science)

Students seeking admission to a master's program in library science accredited by the American Library Association should have a broad, general undergraduate education, including courses in humanities, sciences and social sciences. Employment opportunities are enhanced for those with competency in one or more of the following areas: foreign languages, computer science, mathematics or statistics, or business administration. Teaching certification is required for those desiring to become school media specialists (school librarians) and subject master's degrees are valuable for academic or special library employment.

Although library/information schools may vary in admission requirements, emphasis is usually placed on overall GPAs and Graduate Record Examination scores. Detailed information on specific preparatory coursework may be obtained from the School of Library and Information Science, 314 University Library.

