College of Liberal Arts

Lorman Ratner, Dean
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The College of Liberal Arts is home to a wide array of academic disciplines and interdisciplinary programs. Such diverse areas of study as Computer Science and Classics, Anthropology and Zoology, Women's Studies and Latin American Studies are represented among the twenty-six departments and twelve special programs that compose the College.

The faculty of the College are committed to providing both comprehensive general education and concentrated study in a particular field to all students enrolled at The University of Tennessee, Knoxville. General education offers opportunities to master the basic learning skills necessary to understand a specialized area of study and is essential for the continuation of learning throughout life.

Liberal Arts faculty are also committed to educating students in a discipline. Education with a disciplinary focus prepares students for careers in business, public service, or any other endeavor. As our world becomes both more specialized and more changeable, the need to find the right balance between general and specialized knowledge becomes essential.

The central purposes of a liberal education include the encouragement of intellectual tolerance, a dedication to the quest for knowledge as a worthwhile goal in itself and of itself, and the cultivation of a responsible, creative, individual mind. These qualities enable one to develop an ability to reason and to express oneself clearly, an incentive to absorb emerging knowledge, and a competence to confront the uncertainties of human experience. For the student whose interests and talents lead into research, scholarship, and teaching, a liberal education provides an invaluable foundation. For all, it offers the opportunity to share in a rich intellectual heritage, in the adventures of the mind, and in the life of the educated imagination. A broadly educated person is identified not so much by specific knowledge as by quality of mind and by creative response to the challenges of the times.

The great universality of the world is so labeled because their faculties have earned the reputation of being renowned scholars. The University of Tennessee, Knoxville has earned such a reputation because of the quality of the research and creative activity of its faculty. The student who studies in the College of Liberal Arts has joined a community of scholars. To study with such a talented faculty is to experience the liberal education possible.

The faculty of the College of Liberal Arts provide to all students a general education and to thousands of students a year a more specialized education in any of two dozen or more inter-disciplin ary programs. The College's faculty help their students prepare for any and all careers. Faculty research and creative activity are the foundations on which education in this College is built. As a result of that faculty endeavor the lives of students are enriched and the world's body of knowledge grows. That is the basic mission of the College of Liberal Arts faculty in a research University.

PROGRAMS OF STUDY

Seeking the broad, general goals of a liberal education, students come into the college also with a wide variety of specific educational and vocational objectives. Recognizing this diversity, the college offers a number of different programs of study leading to the baccalaureate degree and also several pre-professional curricula which prepare the student for advanced study but do not lead to a degree from the college.

DEGREES OFFERED

(1) BACHELOR OF ARTS

The Bachelor of Arts represents the attainment of a broad knowledge of the arts and sciences as well as a comprehensive understanding of one or more areas of special interest. Four programs leading to this degree are open to the student.

Basic Program - The program appropriate for most B.A. students is developed around the basic skills and distribution requirements plus intensive study in one or more of the specified departmental or interdepartmental major fields described below.

Individualized Program - Designed for students whose educational goals are best met by a program tailored to their particular needs, it is the same as the Basic program in broad area requirements but permits the student to develop an individual concentration incorporating work in two or more departments.

College Scholars Program - Intended for a limited number of students who are especially qualified and motivated and who have been selected to undertake this honors program, the College Scholars Program permits the student to design a curriculum to meet particular interests and goals.

Pre-Professional Program - The Pre-Professional Program is offered for those who wish to participate in the cooperative 3+2 program in business and liberal arts or the elementary and secondary pre-teaching programs. Students in the 3+2 business and liberal arts program take three years of coursework leading to a B.A. in Liberal Arts, followed by two years of study in the College of Business leading to the M.B.A.

(2) BACHELOR OF SCIENCE

The Bachelor of Science degree, offered in selected departments and programs, is designed for students who wish to pursue a more scientifically or professionally oriented program of study. These programs leading to this degree are offered:

Basic Program - The Basic Program for the B.S. degree contains basic skills and distribution requirements similar to the Basic Program for the B.A. as well as a unique set of requirements for the major including additional study in mathematics, statistics, or laboratory sciences.

Pre-Professional Program - The Pre-Pro fessional Program is offered for those who wish to participate in the cooperative 3+1 curricula in the health sciences (medicine, dentistry, phar...
Students who obtain a grade of A or B in one of the following courses: (a) English 118 (Honors: English Composition) will complete their freshman requirement by choosing 102, a sophomore literature course in the English Department, or English 355, Advanced Expository Writing. If the sophomore literature course appears on the list for Humanities distribution requirements, it may also be counted towards those requirements. (b) English 131 and 132 (Composition for Non-Native Speakers of English). By earning a grade of 4 or 5 on the College Board Advanced Placement Test in English, by obtaining CLEP credit for English composition.

Requirements for Degrees Bachelor of Arts and Bachelor of Science

Basic Programs

Each student seeking a Bachelor of Arts or Bachelor of Science degree must develop a program which includes the following:

1. All University degree requirements as stated in the front section of the Undergraduate Catalog.

2. A minimum of 124 credit hours.

3. At least 40 credit hours in courses numbered 300 or above.

4. Appropriate work to satisfy basic skills and distribution requirements, counting no course in more than one area (not required in the College Scholars Program).

5. Completion of at least one major (24-40 credits at 200 level or above for B.A. majors) up to 6 hours in the major may also be used, where listed, to satisfy basic skills or distribution requirements.

6. Students may choose to develop one or more majors (up to 15 hours at the 200 level and above), and

7. Students may take up to 20 hours of courses graded Satisfactory/No Credit in any area outside the major or minor, basic skills or distribution requirements.

Programs Leading to Bachelor of Arts and Bachelor of Science Degrees

The Bachelor of Arts and the Bachelor of Science Degrees share the same program of Basic Skills and Distribution Requirements (except where noted otherwise).

Basic Skills

English Composition

Purpose:

1. To gain and improve the skills necessary to write English exposition coherently and convincingly.

2. To develop reading skills.

3. To enhance critical and analytical abilities as applied to key issues and texts.

Requirement:

Students may meet this requirement in one of the following four ways: (0-6 credits)

(a) English 101 and 102 (English Composition),

(b) English 118 (Honors: English Composition) and English 102 (English Composition).

Students who obtain a grade of A or B in 118

will complete their freshman requirement by choosing 102, a sophomore literature course in the English Department, or English 355, Advanced Expository Writing. If the sophomore literature course appears on the list for Humanities distribution requirements, it may also be counted towards those requirements.

(b) English 131 and 132 (Composition for Non-Native Speakers of English).

By earning a grade of 4 or 5 on the College Board Advanced Placement Test in English, by obtaining CLEP credit for English composition.
Part I: A two-course physical or biological science sequence that includes laboratory work. The following sequences satisfy Part I of this requirement:

**Astronomy 151-152 Introductory Astronomy**

**Botany 305 Socio-Economic Impact of Plants**

**Anthropology 110 Human Origins**

**Geology 101-102 World Geology; 323 Behavioral Geography**

**Classics 253-254 Greek and Roman Literature in English Translation**

**Philosophy 120 Foundation of Western Thought: Antiquity through 1500; Philosophy 121 Foundation of Western Thought: 1500 through Early Twentieth Century**

**American Studies 201-202 Introduction to African and African-American Studies**

**Comparative Literature 202-203 Cross-cultural Perspectives in Western Literature**

**Modern and Contemporary Romance Languages 203-204 Advanced French; 213-214 Advanced German; 223-224 Advanced Spanish**

**Religious Studies 232 Varieties of Religious Community**

**Women's Studies 220 Women in Society; 375 Gender in Society (Same as Sociology 375)**

**a. Bachelor of Arts students:**

- Must complete a minimum of 11 credits from at least two academic areas.
- Must complete a minimum of 6 credits from at least two academic areas.

**b. Bachelor of Science students:**

- Must complete a minimum of 6 credits from at least two academic areas.
- Must complete a minimum of 3 credits from at least two academic areas.

**Writing Emphasis Courses:**

- At least one course in the study or practice of the arts; or one course in literature if a student has taken at least one course in the study or practice of the arts.
The following courses are designated United States Studies courses:
1. To develop an awareness of the history, culture, and contemporary United States civilization.
2. To provide a basis from which to compare foreign cultures and civilizations.
3. To develop a critical understanding of the sources of values and traditions that constitute a foreign culture and civilization.
4. To develop an understanding of the relationship between individual and societal behavior in a highly interdependent world system.
5. To further develop writing skills.
6. To develop an understanding of the relationship between individual and societal behavior in a highly interdependent world system.
7. To further develop writing skills.
8. To develop an appreciation and knowledge of United States culture and civilization.
9. To provide a basis from which to compare foreign cultures and civilizations.
10. To develop a critical understanding of the sources of values and traditions that constitute a foreign culture and civilization.
11. To develop an understanding of the relationship between individual and societal behavior in a highly interdependent world system.
12. To further develop writing skills.
13. To develop an appreciation and knowledge of United States culture and civilization.
14. To provide a basis from which to compare foreign cultures and civilizations.
15. To develop a critical understanding of the sources of values and traditions that constitute a foreign culture and civilization.
16. To develop an understanding of the relationship between individual and societal behavior in a highly interdependent world system.
17. To further develop writing skills.
18. To develop an appreciation and knowledge of United States culture and civilization.
19. To provide a basis from which to compare foreign cultures and civilizations.
20. To develop a critical understanding of the sources of values and traditions that constitute a foreign culture and civilization.
21. To develop an understanding of the relationship between individual and societal behavior in a highly interdependent world system.
22. To further develop writing skills.
23. To develop an appreciation and knowledge of United States culture and civilization.
24. To provide a basis from which to compare foreign cultures and civilizations.
25. To develop a critical understanding of the sources of values and traditions that constitute a foreign culture and civilization.
26. To develop an understanding of the relationship between individual and societal behavior in a highly interdependent world system.
27. To further develop writing skills.
28. To develop an appreciation and knowledge of United States culture and civilization.
29. To provide a basis from which to compare foreign cultures and civilizations.
30. To develop a critical understanding of the sources of values and traditions that constitute a foreign culture and civilization.
31. To develop an understanding of the relationship between individual and societal behavior in a highly interdependent world system.
32. To further develop writing skills.
33. To develop an appreciation and knowledge of United States culture and civilization.
34. To provide a basis from which to compare foreign cultures and civilizations.
35. To develop a critical understanding of the sources of values and traditions that constitute a foreign culture and civilization.
36. To develop an understanding of the relationship between individual and societal behavior in a highly interdependent world system.
37. To further develop writing skills.
38. To develop an appreciation and knowledge of United States culture and civilization.
39. To provide a basis from which to compare foreign cultures and civilizations.
40. To develop a critical understanding of the sources of values and traditions that constitute a foreign culture and civilization.
41. To develop an understanding of the relationship between individual and societal behavior in a highly interdependent world system.
42. To further develop writing skills.
43. To develop an appreciation and knowledge of United States culture and civilization.
44. To provide a basis from which to compare foreign cultures and civilizations.
45. To develop a critical understanding of the sources of values and traditions that constitute a foreign culture and civilization.
46. To develop an understanding of the relationship between individual and societal behavior in a highly interdependent world system.
47. To further develop writing skills.
48. To develop an appreciation and knowledge of United States culture and civilization.
49. To provide a basis from which to compare foreign cultures and civilizations.
50. To develop a critical understanding of the sources of values and traditions that constitute a foreign culture and civilization.
51. To develop an understanding of the relationship between individual and societal behavior in a highly interdependent world system.
52. To further develop writing skills.
53. To develop an appreciation and knowledge of United States culture and civilization.
54. To provide a basis from which to compare foreign cultures and civilizations.
55. To develop a critical understanding of the sources of values and traditions that constitute a foreign culture and civilization.
56. To develop an understanding of the relationship between individual and societal behavior in a highly interdependent world system.
57. To further develop writing skills.
58. To develop an appreciation and knowledge of United States culture and civilization.
59. To provide a basis from which to compare foreign cultures and civilizations.
60. To develop a critical understanding of the sources of values and traditions that constitute a foreign culture and civilization.
61. To develop an understanding of the relationship between individual and societal behavior in a highly interdependent world system.
62. To further develop writing skills.
63. To develop an appreciation and knowledge of United States culture and civilization.
64. To provide a basis from which to compare foreign cultures and civilizations.
65. To develop a critical understanding of the sources of values and traditions that constitute a foreign culture and civilization.
66. To develop an understanding of the relationship between individual and societal behavior in a highly interdependent world system.
67. To further develop writing skills.
Political Science 454 Government and Politics of China and Japan. 
Religious Studies 374 Philosophy and Religion in India (Same as Philosophy 374); 375 Buddhist Philosophy and Religion (Same as Philosophy 376); 375 Religion and Philosophy in China (Same as Philosophy 379); 386 Religion in Japan. 

European 
Anthropology 460 Early European Pre-history. 
Classics 311 Archaeology of the Aegean Bronze Age and Early Greece; 334 Cilicia and Sanbastian of the Ancient Greek World; 381 Greek Civilization; 382 Roman Civilization; 383 Women in the Greek and Roman World (Same as Women's Studies 383). 
Economics 320 Economics of the North Atlantic Community. 
English 301 British Culture to 1660; 362 British Culture: 1660 to Present; 401 Medieval Literature. 
French 420 French Cinema; 421 Highlights of French Civilization; 324 Women in French Culture (Same as Women's Studies 324); 340 Contemporary French Culture. 
Geography 375 Geography of the Soviet Union. 
German 323 German Film; 363 Modern German Culture. 
History 319 Modern Europe, 1750-1914; 320 Contemporary Europe, 1900-present; 420 European Women: 1870-1950. 
Religious Studies 311 Ancient Hebraic History 369-370 History of the Middle East. 
Spanish 431 Spanish Civilization. 

Middle Eastern 
Anthropology 313 Peoples and Cultures of the Middle East (Same as Latin American Studies 313); 319 Carribean Peoples and Cultures (Same as African American and African-American Studies 319). 
Economics 424 Political Economy of World Development (When topic is Latin American, Caribbean or Middle Eastern). 
Geography 372 Geography of South America (Same as Latin American Studies 372). 
History 350-361 History of Latin America (Same as Latin American Studies 360-361). 
Latin American Studies 401 Cultural Plural-ity and Institutional Changes in Latin America. 
Political Science 355 Latin American Government and Politics (Same as Latin American Studies 355); 455 Latin American Government and Politics II (Same as Latin American Studies 455). 
Spanish 471 Latin American Civilization (Same as Latin American Studies 471). 

Arts, Humanities, and Social Sciences 
Anthropology 463 Rise of Complex Civilizations. 
History 369-370 History of the Middle East. 
Religious Studies 311 Ancient Hebrew Religious Traditions; 332 Islam. 

Critical Issues in Foreign Studies 
Economics 323 Economic Development of Third World. 
History 374 The West and the Third World. 
Sociology 432 Comparative Patterns of Poverty and Development. 

AREAS OF CONCENTRATION 
(1) Required Major 
Requirements for specific majors vary by program and are discussed under each depart- 
ment or program. A major consists of at least 24-40 credit hours in courses numbered 200 or above as specified by the department or pro-
gram. Up to 6 credit hours taken in the major 
may also be used to satisfy basic skills or distri-
bution requirements where listed. In addition, 
students majoring in A or B in English 118 may take a 200-level literature course in the English Department to satisfy English requirements. 

(2) Optional Multiple Majors 
After the general requirements of basic skills, distribution and a major have been satisfied, 
additional majors may be recorded on the tran-
script without regard to course overlap among majors or among the additional majors and 
Basic Skills and Distribution requirements. 

(3) Optional Minors 
At the time of application for graduation, 
single or multiple minors may be recorded on 
the academic record without regard to course overlap among minors or among the additional majors and 
Basic Skills and Distribution requirements. 

Areas of Concentration/College of Liberal Arts
COLLEGE SCHOLARS PROGRAM

A limited number of freshmen, entering the university with fewer than 45 credit hours, and resident students with fewer than 60 credit hours are invited each year to enter this distinguished honors curriculum. Selection is based on previous academic performance, standardized test scores, recommendations, a written essay, and a personal interview. Admission is provisional for two semesters; continuation depends upon maintenance of a satisfactory record (normally 3.25 or above) and evidence of ongoing motivation and interest.

The College Scholars Program offers the highest degree of freedom to the student in developing a meaningful curriculum. Each program is worked out by a student advisor (tutor) who under ordinary circumstances continues to advise the student throughout the college career. Together they determine what kinds of course work and other learning experiences will best fulfill the student's interests, while at the same time achieving the kind of liberal education the college believes is important for every student. In the final two years of the program the students will be heavily involved in independent study or research required at all College Scholars. When College Scholars fulfill departmental requirements for additional majors or minors, these will be recorded on the Scholars' transcripts. Scholars will not be required to meet Basic Skills or Distribution requirements in order to have such majors or minors officially recognized.

Further information and applications can be obtained from the Liberal Arts Advising Center.

PRE-PROFESSIONAL PROGRAMS

PRE-DENTAL PROGRAM

The college offers both a three-year program leading to a Bachelor of Science degree and a four-year program leading to a Bachelor of Arts degree for students preparing for the study of dentistry. Both programs are based upon a common curriculum during the first three-year program the student must complete a total of 96 credit hours. For students entering college, and the B.S. degree is granted upon successful completion of the study at UT-Memphis. In the four-year program the degree is granted upon completion of 124 or more credit hours while enrolled in the college, including a major of 24 or more hours in addition to the requirements listed below. The requirement for a major is waived for those completing their fourth year at UT-Memphis. Students in either the three- or four-year program must complete the last 32 hours of credit in residence at The University of Tennessee, Knoxville, before entering UT-Memphis.

Although the B.A. or B.S. degree is not required for admission to the College of Dentistry at Memphis, most of the students accepted into the study of dentistry have the baccalaureate degree before admission. Therefore, pre-dental students are encouraged to plan to complete all requirements for the B.A. or B.S. degree before entering in College of Dentistry.

Credits Hours

Freshman

Eng 101: 102 or equivalent..........................5
Biology 115-116 or Zoology 117-118...........8
Chemistry 120-121.................................5

Sophomore

Electives.................................5
Biology 270...........................................3
Chemistry 350, 360, 369.........................9
Psych 211...........................................3

Junior

Divisional Distribution Humanities (i.e. Part I) Divisional Distribution (A) United States History..................6
Electives .............................................3
Basic Skills (b) Foreign Language (Intermediate Level) Sequence..........................3

Total: 93 hours

PRE-MBA PROGRAM

The college offers a joint B.A./M.B.A. program with the College of Business Administration. Admission requirements are higher than those normally expected of M.B.A. applicants. Students interested in the Dual B.A./M.B.A. program must be accepted into the Liberal Arts Advising Center regarding admission standards for both the three-year and the four-year program. Pre-MBA students are entitled to a minimum of 3.4 GPA and a Graduate Management Admission Test score of 550 or higher. Students in this program have their first three years of coursework in Liberal Arts, and their last two years in the College of Business Administration. Within their first three years, students fulfill all general education requirements for the B.A. degree and upper division courses which are common to all students. Future students may obtain up to 15 credits or courses toward the upper division hours during their second year. Students interested in the Dual B.A./M.B.A. program must be accepted both into the Liberal Arts Advising Center regarding admission standards for both the three-year and the four-year program. Students interested in the Dual B.A./M.B.A. program must be accepted into the Liberal Arts Advising Center regarding admission standards for both the three-year and the four-year program. Students interested in the Dual B.A./M.B.A. program must be accepted into the Liberal Arts Advising Center regarding admission standards for both the three-year and the four-year program. Students interested in the Dual B.A./M.B.A. program must be accepted into the Liberal Arts Advising Center regarding admission standards for both the three-year and the four-year program. Students interested in the Dual B.A./M.B.A. program must be accepted into the Liberal Arts Advising Center regarding admission standards for both the three-year and the four-year program. Students interested in the Dual B.A./M.B.A. program must be accepted into the Liberal Arts Advising Center regarding admission standards for both the three-year and the four-year program. Students interested in the Dual B.A./M.B.A. program must be accepted into the Liberal Arts Advising Center regarding admission standards for both the three-year and the four-year program. Students interested in the Dual B.A./M.B.A. program must be accepted into the Liberal Arts Advising Center regarding admission standards for both the three-year and the four-year program. Students interested in the Dual B.A./M.B.A. program must be accepted into the Liberal Arts Advising Center regarding admission standards for both the three-year and the four-year program. Students interested in the Dual B.A./M.B.A. program must be accepted into the Liberal Arts Advising Center regarding admission standards for both the three-year and the four-year program. Students interested in the Dual B.A./M.B.A. program must be accepted into the Liberal Arts Advising Center regarding admission standards for both the three-year and the four-year program. Students interested in the Dual B.A./M.B.A. program must be accepted into the Liberal Arts Advising Center regarding admission standards for both the three-year and the four-year program. Students interested in the Dual B.A./M.B.A. program must be accepted into the Liberal Arts Advising Center regarding admission standards for both the three-year and the four-year program. Students interested in the Dual B.A./M.B.A. program must be accepted into the Liberal Arts Advising Center regarding admission standards for both the three-year and the four-year program. Students interested in the Dual B.A./M.B.A. program must be accepted into the Liberal Arts Advising Center regarding admission standards for both the three-year and the four-year program. Students interested in the Dual B.A./M.B.A. program must be accepted into the Liberal Arts Advising Center regarding admission standards for both the three-year and the four-year program. Students interested in the Dual B.A./M.B.A. program must be accepted into the Liberal Arts Advising Center regarding admission standards for both the three-year and the four-year program. Students interested in the Dual B.A./M.B.A. program must be accepted into the Liberal Arts Advising Center regarding admission standards for both the three-year and the four-year program. Students interested in the Dual B.A./M.B.A. program must be accepted into the Liberal Arts Advising Center regarding admission standards for both the three-year and the four-year program. Students interested in the Dual B.A./M.B.A. program must be accepted into the Liberal Arts Advising Center regarding admission standards for both the three-year and the four-year program.

Credits Hours

Freshman

'English 101, 102 or equivalent..........................5
Biology 115-116 or Zoology 117-118...........8
Chemistry 120-121.................................5

Sophomore

Electives.................................5
Biology 270...........................................3
Chemistry 350, 360, 369.........................9
Psych 211...........................................3

Junior

Divisional Distribution Humanities (i.e. Part I) Divisional Distribution (A) United States History..................6
Electives .............................................3
Basic Skills (b) Foreign Language (Intermediate Level) Sequence..........................3

Total: 93 hours

"Or equivalent honors courses.

"Students who have had two years of Biology or one very good year in high school should take the physiology test for Biology 120 or 220. Students in Art Science or Science have General Science requirements. Further information and applications may be obtained from the Liberal Arts Advising Center.

"Students must complete a minimum of 6 credits in the three areas. BS students must complete a minimum of 6 credits from the three areas. BS students must complete a minimum of 6 credits in the three areas. (Upper Level Distribution).

"Students must complete a minimum of 6 credits in the three areas. (Upper Level Distribution).

"Recommended upon course selection, a student may request less than the listed elective hours to reach the minimum total of 93 hours. Students interested in the Dual B.A./M.B.A. program must be accepted into the Liberal Arts Advising Center regarding admission standards for both the three-year and the four-year program.
submit an application to the M.B.A. program. The admission decision will be made by January of the third year. Upon admission, students will begin M.B.A. coursework in the fourth year and are awarded a B.A. degree at the beginning of the fifth year. Upon successful completion of the fifth year, the student will receive the M.B.A. degree.

**Hours Credit**
- **Freshman**
  - English 101 or equivalent
  - Chem 110-112 or Zoology 117-118
  - Math 130 or any equivalent
- **Sophomore**
  - Economics 230, 239, 239
  - Divisional Distribution (D) Humanities Part I
  - Divisional Distribution (A) Non U.S. History
- **Junior**
  - Speech Communication 210
  - Upper division Distribution
- **Senior**
  - Completion of major program and B.A./B.S. requirements or completion of one year at UT-Memphis.

**Total: 124 Minimum Hours**

**Medical schools require at least 90 semester hours in general science, including a minimum of 24 semester hours in the natural sciences.**

**PRE-MEDICAL PROGRAM**

The three-year program leading to a B.S. degree and a four-year program leading to a Bachelor of Arts or Science degree for students preparing for the study of medicine. Both programs are based upon the course outlines below. In the three-year program the student must complete at least 93 credit hours while enrolled in the college, and the B.S. degree is granted upon satisfactory completion of the first year of study at UT-Memphis. In the four-year program the degree is granted upon completion of 120 or more credit hours while enrolled in the college, including a major of 24 or more hours in addition to the courses outlined below. The requirements for a major are waived for those taking their fourth year at UT-Memphis. Students in either the three- or four-year program must complete the last 30 hours of credit in residence at the University of Tennessee, Knoxville, as well as to the professional degree in pharmacy from UT-Memphis, based upon the program outlined below.

In the three-year program, the student must complete at least 60 credit hours while enrolled in the College of Liberal Arts, and the B.S. degree is granted upon satisfactory completion of the first year of study in Memphis. In the four-year program the B.A. or B.S. degree is granted upon completion of 124 or more credit hours while enrolled in the college, including a major of 24 or more hours in addition to the courses outlined below. The requirement for a major is waived for those taking their fourth year at UT-Memphis. Students in either the three- or four-year program must complete the last 30 hours of credit in residence at The University of Tennessee, Knoxville, before enrolling in the College of Pharmacy.

**Hours Credit**
- **Freshman**
  - Math 130 or any equivalent
  - Chemistry 120-122
  - Math 130 or any equivalent
- **Sophomore**
  - Physics 221, 222
  - Divisional Distribution (D) Humanities Part I
  - Divisional Distribution (A) Non U.S. History
- **Junior**
  - Speech Communication 210
  - Upper division Distribution
- **Senior**
  - Completion of major program and B.A./B.S. requirements or completion of one year at UT-Memphis.

**Total: 124 Minimum Hours**

**Pre-Pharmacy Programs/College of Liberal Arts**

The College of Liberal Arts offers three pre-pharmacy programs leading to a B.S. degree and a four-year program leading to a Bachelor of Arts or Science degree for students preparing for the study of pharmacy at UT-Memphis. The three programs are designed to provide a foundation of knowledge in the natural sciences and to prepare students for the study of pharmacy at UT-Memphis.

**PRE-PHARMACY PROGRAMS**

The college offers three programs preparing students for the study of pharmacy at UT-Memphis. The Doctor of Pharmacy (Pharm.D.) degree is conferred by UT-Memphis upon completion of four years of professional study at Memphis following any of the three programs. Bulletins describing the three pre-pharmacy programs in detail may be obtained from the Health Professions Office, 220 Ayres Hall.

The pre-pharmacy programs are designed to provide a foundation of knowledge in the natural sciences and to prepare students for the study of pharmacy at UT-Memphis. Further information may be obtained from the Health Professions Office, 220 Ayres Hall, or by writing to the College of Liberal Arts.

**Pre-Pharmacy Program Leading to a B.S. Degree and the Four-Year Program Leading to a B.S. Degree and the Four-Year Program Leading to either a B.A. or B.S. degree from The University of Tennessee, Knoxville, as well as to the professional degree in pharmacy from UT-Memphis, based upon the program outlined below.**

In the three-year program, the student must complete at least 60 credit hours while enrolled in the College of Liberal Arts, and the B.S. degree is granted upon satisfactory completion of the first year of study in Memphis. In the four-year program the B.A. or B.S. degree is granted upon completion of 124 or more credit hours while enrolled in the college, including a major of 24 or more hours in addition to the courses outlined below. The requirement for a major is waived for those taking their fourth year at UT-Memphis. Students in either the three- or four-year program must complete the last 30 hours of credit in residence at The University of Tennessee, Knoxville, before enrolling in the College of Pharmacy.

**Hours Credit**
- **Freshman**
  - English 101 or equivalent
  - Chemistry 120-122
  - Modern Foreign Languages
- **Sophomore**
  - Divisions of Distribution (D) Humanities Part I
  - Divisional Distribution (A) Non U.S. History
- **Junior**
  - Speech Communication 210
  - Upper Division Distribution (A) U.S. History
- **Senior**
  - Completion of major program and B.A./B.S. requirements or completion of one year at UT-Memphis.

**Total: 124 Minimum Hours**
PRE-TEACHING PROGRAMS FOR PROSPECTIVE K-8 TEACHERS

These programs are designed to prepare students for teaching grades K-8. Alternatively, prospective K-8 teachers may complete a Liberal Arts Major in a department, in one of the Interdisciplinary Programs, or in the College Scholars Programs. (Prospective teachers of secondary school must fulfill the requirements of appropriate content majors in Liberal Arts.)

To be licensed for teaching, students must also gain formal admission, normally by the end of the sophomore year, to the Teacher Education Program in the College of Education. This involves completing a series of requirements, including presentation of satisfactory scores on certain tests, completing professional courses in Education, maintenance of a 2.5 or higher GPA and completing a five-year program that emphasizes practical application. For details, see The College of Education section of the Undergraduate Catalog and contact the Education Advising Center, 214 Claxton Addition.

PRE-TEACHING SCIENCE AND MATHEMATICS OPTIONS: BACHELOR OF SCIENCE

(1) Environmental Science

This concentration should develop the knowledge and understanding of the environmental sciences appropriate to the needs of the teacher in grades K-8. The prerequisite courses assure that the student has a background in the biological, chemical and physical sciences to proceed to upper division courses in either of the chosen areas of concentration. The core curriculum stress the interrelatedness of biological and physical systems. The two tracks beyond the core curriculum, the student must choose to follow either a Biological Sciences track (12 hours) or a Physical-Chemical Sciences track (12 hours).

A. Biological Sciences Track (At least 12 hours chosen from the following: Botany 330: Socio-Economic Impact of Plants (2); Botany 310: Plants: Evolutionary Survey I (3); Botany 320: Plants: Evolutionary Survey II (3); Botany 330: Field Botany (4); Botany 346: Introduction to Ornithology (3); Botany 431: Plant Ecology (3); Botany 451: Plant Tissue Culture (3); Botany 473: Environmental and Conservation (3); Botany 476: Plant and Animal Behavior and Lab (3,3); Zoology 380: General Entomology (3); Zoology 450: Comparative Animal Behavior and Lab (3,3); Zoology 470: Aquatic Ecology (3); Zoology 472: Herpetology (5); Zoology 474: Ichthyology (3); Zoology 475: Ornithology (3); Zoology 476: Mammalogy (3).

B. Physical-Chemical Sciences Track (At least 12 hours chosen from the following: Biochemistry 310: Introduction to Biochemistry (3); Chemistry 350-360-369: Organic Chemistry and Lab (3,3); Chemistry 370: Environmental and Conservation (3); Geography 433: The Land-Surface System (3); Geography 434: Climatology (3); Geography 436: Water Resources (3); Geography 203: Geology of National Parks (3); Geology 320: Geologic History of Land Organisms (3); Geology 450: Process Geomorphology (3); Geology 455: Environmental Geology (3); Geology 485: Principles of Geohistory (3).

Total: 26-28 hours

(2) Science

This concentration should develop the knowledge and understanding of the sciences appropriate to the needs of the teacher in grades K-8. The curricular requirement that the student take courses in the biological and physical sciences sequence (12-14 hours) may be used to satisfy general education requirements.

Prerequisite courses: NB: One mathematics and one science sequence is required. Students may choose from 14-16 hours to be used to satisfy general education requirements.

1. Mathematics 121-125 (3,3) or Mathematics 121-122 (3,3) or Mathematics 141-142 (4,4) or Mathematics 151-152 (3,3)
2. Chemistry 100-110 (4,4) or Chemistry 120-130 (4,4)
3. Biology 110-120 (4,4) or Botany 110-120 (4,4) or Zoology 111-112 (2,3)

Total: 22-24 hours

1. Botany 230: General Genetics (4)
2. Botany 230: General Ecology (4)
3. Zoology 101-102 (4,4) or Zoology 131-132 (4,4) or Botany 141-142 (4,4)

Beyond the core curriculum, the student must choose to follow either a Biological Sciences track (12 hours) or a Physical-Chemical Sciences track (12 hours).
Introduction to Oceanography (3); Geology 370: Structural Geology (4); Geology 380: Resource Crises: Minerals and Energy (3); Physics 131-132: Nature of the Physical World (3) or Physics 211-222: Elements of Physics II (4).

Course has a prerequisite other than courses prerequisite to the major. See catalog for details. Total: (parts b and c) 12 hours

(3) Mathematics

This concentration aims at developing a fundamental understanding of some of the primary avenues of mathematical thought including algebra, calculus, computing, geometry, history of mathematics, probability, and statistics.

Mathematics 115: Statistical Reasoning (3); Mathematics 402: Discrete Mathematics (3); Mathematics 141-142: Calculus I and II (4,4); Mathematics 231: Discrete Mathematics (3); Mathematics 251: Calculus III (3); Mathematics 335: Probability (3); Mathematics 400: History of Mathematics (3); Mathematics 401: Math and Microcomputing (3); Mathematics 460: Geometry (3).

Total: 35 hours

(4) Mathematics and Science

This concentration should develop the knowledge and understanding of the natural sciences and mathematics appropriate to the needs of the teacher in grades K-9 and is intended to provide the student pursuing the option with the minimal amount of mathematics in either or both disciplinary areas. Of necessity, depth in any particular discipline is secondary to obtaining breadth from an array of natural science and mathematics areas. Courses included in the major have been selected to maximize the number of upper division courses that can be taken without prerequisites.

Required sequences: Mathematics 151-152: Biocalculus I and II (3,3).

Mathematics (12 hours): Mathematics 221: Discrete Mathematics (3); Mathematics 251: Matrix Algebra (3) Any two of the following: Mathematics 400: History of Mathematics (3); Mathematics 401: Math and Microcomputing (3); Mathematics 460: Geometry (3).

Science (9-14 hours): One of the science sequences listed below may be used to satisfy general education requirements.

A. Biological Sciences (two of the following three courses): Biology 210: Cell Biology (4); Biology 220: General Genetics (4); Biology 230: General Ecology (4); Botany 230-240: Human Physiology, Human Anatomy (4,3).

B. Chemistry: Either Chemistry 172-173: Western Art I (3) or Chemistry 183: Asian Art (3); Music 110: Music Appreciation (3); Theatre 100: Introduction to Theatre (3)

9 hours in performance courses from 2 or 3 of the following areas: Studio Art (any course); Dance (any course); Music Performance (any course); Speech Communication 200; Introduction to Oral Interpretation (3); Speech Communication 250: Oral Interpretation of Poetry; Speech Communication 260: Oral Interpretation of Prose Literature (3); Speech Communication 280: Oral Interpretation of Poetry (6); Speech Communication 284: Extempore Interpretation (3); Theatre 220: Acting (3); Theatre 221: Acting (3); Theatre 245: Basic Costume Design (3); Theatre 250: Introduction to Scene Technology (3); Theatre 250-260: Fundamentals of Light and Sound (3); Theatre 300: Advanced Acting (3); Theatre 340: Introduction to Costume Design (3); Theatre 350: Introduction to Set Design; Theatre 360: Intro- duction to Lighting Design (3); Theatre 409: Stage Makeup (3); Theatre 430: Principles of Play Directing (4)

9 hours of Non-performance courses from 2 or 3 of the following areas: Studio Art (any course); Dance (any course); Music Performance (any course); Speech Communication 200; Introduction to Oral Interpretation (3); Speech Communication 250: Oral Interpretation of Poetry; Speech Communication 260: Oral Interpretation of Prose Literature (3); Speech Communication 280: Oral Interpretation of Poetry (6); Speech Communication 284: Extempore Interpretation (3); Theatre 220: Acting (3); Theatre 221: Acting (3); Theatre 245: Basic Costume Design (3); Theatre 250: Introduction to Scene Technology (3); Theatre 250-260: Fundamentals of Light and Sound (3); Theatre 300: Advanced Acting (3); Theatre 340: Introduction to Costume Design (3); Theatre 350: Introduction to Set Design; Theatre 360: Intro- duction to Lighting Design (3); Theatre 409: Stage Makeup (3); Theatre 430: Principles of Play Directing (4)

Total: 33 hours (at least 15 at 300 level or above)

(6) Language Arts

This concentration should develop knowledge, understandings, and skills for effective communication, appreciation of literature, and competence in use of language.

Required: Linguistics 200: Language, Linguistics, and Society (3)

12 hours from at least two of the following areas: Audiology and Speech Pathology; Comparative Literature, English, Library and Information Science, Linguistics, Speech Communication

6 hours in expository and/or creative writing courses in the English Department or Theatre 470-471: Playwriting (3,3)

6 hours from: Audiology and Speech Pathology 305: Speech Science I: Phonetics and Acoustics of Speech (3); Audiology and Speech Pathology 320: Speech and Language Development (3); Audiology and Speech Pathology 456: Speech and Language Disorders of Children (3); English 371: Foundations of the English Language (3); English 372: The Structure of Modern English (3)
(7.) Ideas and Values
This concentration aims at developing an understanding of the variety of ideas and values offered by different civilizations in their attempts to comprehend and manage the human condition. Prerequisite to this concentration is Mathematics 201-202 or one of the Mathematics sequences listed under Natural Science, Part II. The Liberal Arts Distribution requirements are: Math 131-115, 121-122, 121-122 (if the Math 201-202 sequence is chosen, it will satisfy the distribution requirements under Natural Science, Part II).

Required courses: (15 hours)

- Philosophy 110-111: The Human Condition (3)
- Religious Studies 104: World Religions in History (3)
- Religious Studies 211: Ways of Understanding Religion (2)

One of the following: Philosophy 380: The Concept of Women (3); Philosophy 382: Feminism (3)

At least 9 hours at the 200 level or above from the following or from an option approved by petition: Classics 221: Early Greek Mythology (3); Classics 222: Classical Greek and Roman Mythology (3); Philosophy 320: Ancient Western Philosophy (3); Philosophy 322: Medieval Philosophy (3); Philosophy 324: Seventeenth and Eighteenth Century Philosophy (3); Philosophy 326: Nineteenth and Twentieth Century Philosophy (3); Philosophy 327: Philosophy of Religion (3); Philosophy 390: Philosophical Foundations of Democracy (3); Philosophy 393: Marxism (3); Philosophy 396: Existentialism (3); Philosophy 397: Philosophy of Science (3); Philosophy 398: Philosophy of Religion (3); Philosophy 399: Philosophical Theories of Knowledge in Recent Continental Philosophy (3); Religious Studies 318: American Religions (3); Religious Thought (3); Religious Studies 317: Ancient Hebrew Religious Traditions (3); Religious Studies 315: Reformation Europe (3); Religious Studies 331: New Testament Overtight (3); Religious Studies 332: Christian Thought (3); Religious Studies 338: Images of Jesus (3); Religious Studies 331: Judaism (3); Religious Studies 340: Religious Ethics (3); Religious Studies 351: Introduction to U.S. Religious History (3); Religious Studies 352: American Religions in the U.S. (3); Religious Studies 355: Religion and Culture in the U.S. (3); Religious Studies 425: Seminar in Western Religions (3)

At least 6 hours in non-Western philosophy and religion to be from the following or from an option approved through petition:
- Religious Studies 321: Religion of Primitive People (3); Religious Studies 332: Islam (3); Religious Studies 333: Christianity (3); Religious Studies 374: Philosophy and Religion in India (3); Religious Studies 376: Buddhist Philosophy and Religion (3); Religious Studies 379: Religion and Philosophy in China (3); Religious Studies

383: Religion in Japan (3); Religious Studies 412: Classical Indian Systems of Philosophy (3); Religious Studies 435: Seminar in Asian Religions (3)

Total: 30 hours

(8.) United States Culture
The aim of this concentration is to develop both breadth and depth of understanding about American culture, its uniqueness, its strengths, and its origins. Prerequisite to this concentration is Mathematics 201-202 or one of the Mathematics sequences listed under Natural Science, Part II, if the Liberal Arts Distribution requirements: Math 131-115, 121-122, 121-122 (if the Math 201-202 sequence is chosen, it will satisfy the distribution requirements under Natural Science, Part II).

Required courses: (8 hours)

- American Studies 310: Introduction to American Culture: Voices of Dissent (3); American Studies 410: Topics in American Culture (3)

6 hours from any U.S. History courses

3 hours in Appalachian Studies selected from:
- Anthropology 312: Appalachian Culture (3); Geography 355: Geography of Appalachia (3); History 440: American History (3)

6 hours in American Literature at 400 level

9 hours from the following: Anthropology 310: North American Indians (3); Anthropology 315: African American Anthropology (3); Anthropology 360: North American Prehistory (3); Art 471: History of North American Art (3); Art 472: History of 20th century American Art (3); Art 473-189th, 19th and 20th century American Painting (3); Economics 331: Government and Business (3); Economics 332: The Economics of the North Atlantic Community (3); English 333: Women in American Literature (3); English 334: Film and American Culture (3); Geography 355: Regional Geography of the US and Canada (3); Geography 393: Geography of the American South (3); Geography 400: Geography of Appalachia (3); Geography 425: Historical Geography of the United States (3); Geography 441: Urban Geography (3); Geography 443: Rural Geography (3); History 440: America: Mind, Mood and Society (3); History 445: The African American Experience from the Colonial Period to the Present (3); History 453: Women in American History (3); History 494: Cities and Urbanization in American History (3); Music 355: History of Jazz (3); Music 445: Music of North America (3); Philosophy 425: American Philosophy (3); Philosophy 430: Tennessee Government and Politics (3); Political Science 300: American Society (3); Political Science 330: Judicial Process (3); Political Science 376: American Political Thought (3); Political Science 411: The Presidency (3); Political Science 412: Congress (3); Political Science 431: U.S. Constitutional Law; Civil Rights and Liberties (3); Religious Studies 381: Introduction to U.S. Religious History (3); Religious Studies 382: African American Religion in the U.S. (3); Religious Studies 383: Topics in African-American Religion (3); Sociology 452: Sociology of Sport (3); Sociology 455: Sociology of Aging (3); Sociology 456: Society and Law (3); at 300 level courses except Sociology 331, 336, 344, 351, and 370; Theatre 312: The History of the American Theatre (3)

Total: 30 hours

(9.) Human Learning and Behavior
The purpose of this option is to develop knowledge and insights into sociocultural influences and the ways in which humans learn, think, and act through various stages of development. Of the 33 hours, at least 21 must be within the College of Liberal Arts. Prerequisite to this concentration is Mathematics 201-202 or one of the Mathematics sequences listed under Natural Science, Part II of the Liberal Arts Distribution requirements: Math 131-115, 121-122, 121-122 (if the Math 201-202 sequence is chosen, it will satisfy the distribution requirements under Natural Science, Part II).

Core courses:

3 hours from: Child and Family Studies 210: Human Development (3); Educational and Counselling Psychology 210: Psychology of Human Development for Teachers (3); Psychology 300: Child Psychology (3)

9 hours from courses related to culture and society from at least 2 of the following areas: African-American Studies 460: Black Community in Africa (3); Anthropology 130: Cultural Anthropology (3); Anthropology 230: Cultural Anthropology (3); Anthropology 313: Appalachian Culture (3); Anthropology 320: Peoples and Cultures of Mesoamerica (3); Anthropology 341: Peoples and Cultures of Africa (3); Anthropology 410: Principles of Cultural Anthropology (3); Anthropology 435: Dynamics of Urban Social Life (3); Anthropology 320: Peoples and Problems of Appalachia (3); Sociology 309: American Society (3); Sociology 345: Race and Ethnicity (3); Sociology 351: Juvenile Delinquency (3); Sociology 360: The City (3); Sociology 373: Gender and Society (3); Sociology 360: Rural Sociology (3)

6 hours from courses related to family from: African-American Studies 460: Families: Race, Class and Culture (3); Child and Family Studies 213: Development in Middle Childhood and Adolescence (3); Child and Family Studies 312: Adulthood and Aging (3); Child and Family Studies 360: Family Stress (3); Sociology 311: Family (3); Women's Studies 230: Marriage and Family: Roles and Relationships (3)

15 hours related to human development, learning and behavior in at least 2 of the following areas (courses not taken in the core may be used): Child and Family Studies 210: Development in Infancy and Early Childhood (3); Child and Family...
(10) Multicultural Studies
This concentration should develop a greater sensitivity, appreciation, and knowledge regarding other cultures both nationally and internationally. It should also increase understanding of issues of race and ethnicity. Pre-requisites to this concentration is Mathematics 201-202 or one of the Mathematics sequences listed under Natural Science, Part I or II of the Liberal Arts Distribution requirements: Mathematics 102-115; Mathematics 201-122; Statistics 201-121; or the Math 201-202 sequence is chosen, it will satisfy the distribution requirements under Natural Science, Part II.

Required courses:
- 9 hours
- Geography 101-102
- World Geography (3,3)
- Anthropology 130
- Cultural Anthropology (3)
- 3 hours from: Sociology 340: Class Structure (3); Sociology 433: Race and Ethnicity (3); Sociology 540: Power and Society (3)
- 3 hours Sociology 448: The Modern World System (3)
- 3 hours Curriculum and Instruction 451: Education in Cultural Perspective (3)
- 18 hours selected from Geography, African-American Studies, Anthropology, Economics, History, Latin-American Studies, Religion, Sociology with a multicultural/International emphasis or in a given geographic area (such as Africa, Asia, Latin America)

Total: 36 hours (at least 18 at 300 level or above)

(11) Social Studies
This concentration should develop perceptions of the broad field of social science and broaden the student's understanding of human behavior and knowledge base. Prerequisite to this concentration is Mathematics 101-102 or the Mathematics sequences listed under Natural Science, Part II of the Liberal Arts Distribution requirements: Mathematics 111-115, 121-122, 121-Statistics 201-121, 120-115, 141-142, or 151-152. If the Math 201-202 sequence is chosen, it will satisfy the distribution requirements under Natural Science, Part II.

Prerequisite courses:
- History 151-152
- Development of Western Civilization (3,3)
- History 141-142: History of World Civilization (3,3)
- Geography 130: Geography (3,3)
- Anthropology 101-102: Political Science (3)
- Government and Politics (3)
- Political Science 12: Government and Politics (3)
- History 251-252: History of the United States (3,3)
- Anthropology 120: Prehistoric Archology (3) or Anthropology 120: Cultural Anthropology (3) or Sociology 100: General Socioology (3)

Total: 24 hours

Core courses: Geography 220: Cultural Geography, Core Concepts (3,3); History 375: Historical Issues (3) or History 376: American Issues: Individualism and Community (3) or History 380: American Issues: War and the Peaceful Ideal (3)

6 hours from the following: History 360-361: History of Latin America (3,3); History 362-363: History of East Asia (3,3); History 364: History of China (3); History 365: History of Japan (3); History 366: Ancient Near East Civilization (3); History 369-370: History of the Middle East (3,3)

6 hours from the following: African-American Studies 371-372: African History (3,3); Economics 100: Survey of Economic Ideas (3); Economics 201: Industrial Economics: A Survey Course (4); History 376: History Behind the News (3); History 449: History of Tennessee (3); Human Services 220: Introduction to Human Services (3); Psychology 100: General Psychology (3); Psychology 310: Women's Studies 310: Emergence of the Modern American Woman (3); Women's Studies 322: Women in American Literature (3); Women's Studies 340: Women, Politics, and The Law (3)

Total: 18 hours

12 additional hours at 300 level or above from one of the following: U.S. History; European History; Ancient and Medieval History; Geography; Political Science; Modern History, African and/or Asian History

Total: 30 hours (at the 300 level or above)

PRE-VETERINARY MEDICINE PROGRAM
The following program is designed for students who wish to pursue a Liberal Arts degree while preparing for the study of Veterinary Medicine. Students in this program must complete at least 80 credit hours while enrolled in the College of Liberal Arts, must satisfy the Basic Skills and Distribution requirements, and must complete the last 30 hours in residence at UT, Knoxville before enrolling in the College of Veterinary Medicine. A departmental major is not required. Upon successful completion of the first year (the second semester) of the professional veterinary medicine curriculum, the Bachelor of Science degree will be conferred by the College of Liberal Arts.

Note: Admission to the College of Veterinary Medicine is at the discretion of the Admissions Committee of that College; admission to and successful completion of this program does not assure admission to the College of Veterinary Medicine.

Total: 124 Minimum hours

SCIENCE-MEDICAL TECHNOLOGY CURRICULUM
Students who complete the Science-Medical Technology Curriculum receive the B.S. degree with a major in medical technology from the College of Liberal Arts. The curriculum requires a minimum of 94 hours of credit which includes the Basic Skills and Distribution requirements of the college prior to application for admission into the second year of study at The University of Tennessee Medical Center, Knoxville (UTMC). After the course of study is completed, UTMC, serving as an affiliate of a school of Laboratory Training, students are then eligible for examination by the Board of Registry of the American Society of Clinical Pathologists to earn certification as registered medical technologists.
PREPARATION FOR OTHER PROFESSIONS

LIBRARY SCIENCE

Certain courses in the Graduate School of Library and Information Science are open to students in the College of Liberal Arts interested in preparation for future graduate study in professional librarianship. For further information, consult the Director of the Graduate School of Library and Information Science.

PLANNING

Students who wish to consider a career in city and regional planning must find a brief description of the program of the Graduate School of Planning. Students are advised to consult with the College of Liberal Arts and must find satisfactory completion of the basic liberal arts requirements.

TEACHING

Students in the College of Liberal Arts who wish to be certified for elementary and secondary school teaching must satisfy state certification requirements as well as all degree requirements in beginning positions in a library or in preparation for future graduate study in professional librarianship. For further information, consult the Director of the Graduate School of Library and Information Science.

Note: Students planning to seek admission to graduate or professional schools (especially in the health sciences) should discuss with their advisers possible limitations on the exercise of the S/NC option before registering for courses on this basis.

OFF-CAMPUS STUDY

Research opportunities for study abroad are available to students in the college. One avenue is through group programs arranged and supervised by departments of the college on a full-semester or summer term basis. A second is through group programs conducted abroad by other academic institutions in which UT, Knoxville students with approval may enroll for credit. Assistance in identification of and registration for these opportunities is provided for students to earn credit toward a degree in the college. Although individual departments may limit the number of hours which may be applied toward a specific major, students who wish to do such independent work should obtain the approval of the faculty members and the departments concerned prior to embarking upon their study. Credit per semester will vary from 1-15 hours. Up to 21 hours of credit earned in this way may be applied toward a degree in the college, although individual departments may limit the number of hours which may be applied toward a specific major.

STUDY ABROAD AND FOREIGN STUDY COURSES

A few courses in the college are offered only on a Satisfactory/No Credit (S/NC) basis, and students may elect to take others on this basis, except in areas where the option is specifically prohibited. Such courses, if successfully completed, will count as hours for graduation, although neither S nor NC grades will be calculated in the student's grade point average. Satisfactory is defined as C or better work on this basis. The following regulations apply:

1. S/NC courses, except those offered only on this basis, may not count for Basic Skills or Distribution requirements unless specifically permitted by the petition. The restriction applies also to major or minor prerequisites or corequisites.
2. The maximum number of S/NC elective hours which may be counted toward graduation is 20, exclusive of courses only S/NC, physical education courses, and/or satisfactory hours earned by examination, military service, etc.
3. A student who desires to take a course S/NC should indicate that intention at the time of registration. A change from S/NC grading to regular grading or from regular grading to S/NC will not be permitted after the second week of classes in each semester. (Exception: Students who are recommended by faculty for a course in a college minor requirement will be required to change to regular grading when the error is discovered.)
4. A transfer student who has more than 20 S/NC or equivalent hours earned prior to admission to The University of Tennessee, Knoxville, may count all of these hours toward graduation but may not elect additional S/NC hours.
5. A transfer student with S/NC or equivalent credit earned prior to admission to The University of Tennessee, Knoxville, in a course which satisfies a Basic Skills or distribution requirement may count it as a prerequisite. (In the case of a course which satisfies a major or minor requirement, statement 1 applies.)
6. The option of taking courses on a S/NC basis is provided to encourage the able student to venture beyond the limits of those courses in which the student does well and, motivated by intellectual curiosity, to explore subject matter in which performance may be somewhat less outstanding than work in preferred subject fields.
ART

Professors: D.F. Kunca (Head), Ph.D., New York; J.J. Stein, M.F.A. Wisconsin; M. Brakes, M.F.A. Yale; D.G. Cleaver (Emeritus), Ph.D., Chicago (R); D.A. Darlow, M.F.A. Wisconsin; J.S. Falstaff, M.S., Ohio State (B); M.G. Gottschalk, M.F.A. Nebraska; W.C. Kennedy, M.F.A. Wisconsin; B. Lee, M.F.A. Yale; W.R. LeMair, M.F.A. Tennessee; P.R. Livingston, M.F.A. Wisconsin; F.K. Matthew, Ph.D., Chicago; S. Nishida, M.F.A. Michigan; D. Peacock, M.F.A. Iowa; T.L. Rheel, M.F.A. Nebraska; P.G. Slodwick, M.F.A. Glen Ellyn; S.A. Yates, M.F.A. Indiana (Glenview).


Assistant Professors: L. Konigsberg, Ph.D. Northwestern; A. Kramer, Ph.D. Indiana.

Research Assistant Professor: J. Chapman, Ph.D. North Carolina.

Research Assistant Professors: S. Frankenberger, Ph.D. Northwestern; D. Mone, Ph.D. Tennessee; S. Tardif, Ph.D. Michigan State.

ANTHROPOLOGY

Professors: W.M. Best (Alumni Distinguished Service Professor), Ph.D., Pennsylvania; C.H. Faulkner, Ph.D. Indiana; D. Ivan, W. Klippel, Ph.D. Missouri; R.L. James, Ph.D. Kansas; P.W. Parmalee (Emeritus); Ph.D. Texas A&M; M.C. Wheeler (Emeritus).

Associate Professors: F.V. Harrison, Ph.D. Stanford; J. Harvis, Ph.D. Pennsylvania; D. Reynolds, Ph.D. Pennsylvania; K.Y. Simek (Head), Ph.D., SUNY-Binghampton; G.F. Schroeder, Ph.D. Washington State.

Assistant Professors: L. Kingsberg, Ph.D., Northwestern, A. Kramer, Ph.D., Michigan.

Research Associate Professor: J. Chapman, Ph.D. North Carolina.

ANTHROPOLOGY

Anthropology 119, 120, and 120 are prerequisites to a B.A. in anthropology, which consists of Anthropology 450 and 27 additional hours of upper division course work in Anthropology. This course work shall be distributed as follows:

1. (a) One course from categories (a), (b), (c), and (d); and two courses from categories (a), (b), (c), and (d).
2. (b) An archaic method and theory, 381, 382, 400, 464.
3. (c) An archeological area: 383, 461, 462, 463.
4. (d) A cultural or historical area: 410, 411, 412, 413, 414, 431.
5. (e) Biological methodology: 480, 490, 494, 495, 496.
6. (f) Remaining hours may be selected from any upper division Anthropology courses.

Students with senior standing should be encouraged to substitute appropriate 500 level courses (with permission of the instructor of the course and approval of the Department Head) for any of (1) or (2) above. Anthropology 110, 120, 120 are prerequisites to a B.A. in anthropology, which consists of 15 hours of upper division Anthropology courses, chosen in consultation with an Anthropology advisor.

ART

Professors: D.F. Kunca (Head), Ph.D., New York; J.J. Stein, M.F.A. Wisconsin; M. Brakes, M.F.A. Yale; D.G. Cleaver (Emeritus), Ph.D., Chicago (R); D.A. Darlow, M.F.A. Wisconsin; J.S. Falstaff, M.S., Ohio State (B); M.G. Gottschalk, M.F.A. Nebraska; W.C. Kennedy, M.F.A. Wisconsin; B. Lee, M.F.A. Yale; W.R. LeMair, M.F.A. Tennessee; P.R. Livingston, M.F.A. Wisconsin; F.K. Matthew, Ph.D., Chicago; S. Nishida, M.F.A. Michigan; D. Peacock, M.F.A. Iowa; T.L. Rheel, M.F.A. Nebraska; P.G. Slodwick, M.F.A. Glen Ellyn; S.A. Yates, M.F.A. Indiana (Glenview).


Assistant Professors: L. Konigsberg, Ph.D. Northwestern; A. Kramer, Ph.D. Indiana.

Research Assistant Professor: J. Chapman, Ph.D. North Carolina.

ANTHROPOLOGY

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1. (a) One course from categories (a), (b), (c), (d), and (e).
2. (b) An archaeological method and theory, 381, 382, 464.
3. (c) An archeological area: 383, 461, 462, 463.
4. (d) A cultural or historical area: 310, 311, 312, 313, 314, 315.
5. (e) Biological methodology: 480, 490, 494, 495, 496.
6. (f) Remaining hours may be selected from any upper division Anthropology courses.

Students with senior standing should be encouraged to substitute appropriate 500 level courses (with permission of the instructor of the course and approval of the Department Head) for any of (1) or (2) above. Anthropology 110, 120, 120 are prerequisites to a B.A. in anthropology, which consists of 15 hours of upper division Anthropology courses, chosen in consultation with an Anthropology advisor.
vised that courses in Graphic Design/Illustration for graduation. Two options are available:

**GRAPHIC DESIGN CONCENTRATION**

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<td>Art 205, 211, 215 (or 219)</td>
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**Design and Professional Electives**

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<td>Art 231</td>
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<td>Art 212, 9 hours of drawing electives</td>
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**ILLUSTRATION CONCENTRATION**

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<tbody>
<tr>
<td>Art Core</td>
<td>Art 171, 172, 179</td>
</tr>
<tr>
<td>Art History electives</td>
<td>6</td>
</tr>
<tr>
<td>Art 101, 103</td>
<td>4</td>
</tr>
<tr>
<td>Art 205, 211, 213 (or 219)</td>
<td>9</td>
</tr>
<tr>
<td>Total: 28</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Illustration</th>
<th>Art Core</th>
<th>Hours Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Art 505 (SNC)</td>
<td>Art 210, 9 hours of drawing electives</td>
<td>12</td>
</tr>
<tr>
<td>Art 251</td>
<td>Art 505, 512, 515/520/525, 454, 455, 456, 458 in sequence</td>
<td>27</td>
</tr>
<tr>
<td>Total: 44</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Studio Electives**

A minimum of 12 hours from one of the following areas: 9 hours from a second area: (A) Fiber-Fabric, (B) Papermaking, (C) Printmaking, (D) Sculpture, (E) Weaving.

Both courses must be taken concurrently.

**General Curriculum**

| English Composition | 3 |
| Non-U.S. History/Social Science | 3 |
| Natural Science/Mathematics | 6 |
| Liberal Arts Non-Art Electives | 14-16 |
| Total: 34 |

In addition to the general B.A. requirements, the following are required for majors in the Art Department:

**B.A. Majors in Art History**

<table>
<thead>
<tr>
<th>Prerequisite: Art 173, 173, 181</th>
<th>Hours Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Major: Art History courses numbered 220 and above (May include Greek and Roman Art and Archaeology: Department of Classics)</td>
<td>31</td>
</tr>
<tr>
<td>Studio courses numbered 220 and above</td>
<td>6</td>
</tr>
<tr>
<td>Art 481</td>
<td>Total: 39 hours</td>
</tr>
</tbody>
</table>

Undergraduate work in Art History is enhanced by knowledge of at least one foreign language and by additional studio art experience. Graduate work normally requires reading knowledge of German, French, and any other language appropriate to an area specialization.

Students anticipating possible careers in the museum or gallery field are advised that elective hours in Art 482, Museology II, should be considered.

**B.A. Major in Studio**

<table>
<thead>
<tr>
<th>Prerequisite: Art 101, 205, 103</th>
<th>Hours Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Art 171 and an additional hours of Art History</td>
<td>9</td>
</tr>
<tr>
<td>Major: Studio courses which include a minimum of 15 hours in 300-400 level courses</td>
<td>24</td>
</tr>
<tr>
<td>Total: 40 hours</td>
<td></td>
</tr>
</tbody>
</table>

In addition to the general B.A. requirements, the following are required for minors in the Art Department:

**B.A. Minor in Art History**

<table>
<thead>
<tr>
<th>Prerequisite: Art 172, 173</th>
<th>Hours Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Minor: Art History courses numbered 220 and above</td>
<td>15</td>
</tr>
<tr>
<td>Total: 21 hours</td>
<td></td>
</tr>
</tbody>
</table>

**B.A. Minor in Studio**

<table>
<thead>
<tr>
<th>Prerequisite: Art 101, 103, 205</th>
<th>Hours Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Minor: Studio courses which include a minimum of 8 additional studio hours. Concentration may be Ceramics, Drawing, Fiber-Fabric, Painting-Watercolor, Printmaking, Sculpture or a combination from these areas</td>
<td>15</td>
</tr>
<tr>
<td>Total: 28 hours</td>
<td></td>
</tr>
</tbody>
</table>

**Audiovisual and Speech Pathology**

Professors: P.J. Conmy (Head), Ph.D. Iowa; C.W. Asp, Ph.D. Ohio State; D.M. Luscombe (Adjunct), Ph.D. Washington; H.L. Luger, Ph.D. Ohio State; J.B. Dolezalek, Ph.D. Czech Technical (Prague); H.A. Peterson, Ph.D. Illinois; B. Silverstein, Ph.D. Purdue.


**Assistant Professors:** P. Gordon, Ph.D. Tennessee; A. Krishnan, Ph.D. Texas (Dallas)

**Instructors:** D. King, M.A. Tennessee; T.R. Singaltry, M.S. Colorado State.

The Department of Audiovisual and Speech Pathology offers courses work in the scientific study of human communication sciences and
disorders. The two undergraduate majors (audiology and speech pathology) are preparatory to graduate work and to professional certification in some aspect of speech, language and hearing disorders. The master's degree is required for most professional certificates and employment positions in audiology and speech pathology programs may be obtained from the departmental office, 457 South Stadium Hall, and students are strongly encouraged to consult with the graduate advisors in the department as early as possible in their program. Suggested elective courses for students not majoring in Audiology and Speech Pathology include 304, 305, 321, 465 and 473.


Applicants for enrollment in clinical practice must submit an application to the departmental Director of Clinical Services. Requirements for enrollment in practical courses include 304 in Speech-Language Pathology or 445 in Audiology. Include a minimum cumulative GPA of 2.0 and (3.0 in the last 30 hours of enrollment), a minimum of "C" in all courses taken within the department, successful completion of 453, and a minimum GPA of 2.75 within the major.

Undergraduate degrees in speech pathology and in audiology are pre-professional degrees. That is, a minimum of a Master's degree is required for professional certification. Students who fail to satisfy the above prerequisites for eligibility in clinical practice experience may graduate with a degree in the department, but will not be recommended for graduate study at UTR. Requests for an exception to this rule should be submitted to the director about the admissions Committee for consideration.

Additional requirements for professional certification include courses in biological/physical sciences, mathematics, and at least one course in normal/abnormal behavior. Students majoring in biology and speech pathology are strongly encouraged to consult with their advisors before selecting elective courses.

**BACTERIOLOGY**

See Microbiology.

**BIOCHEMISTRY**

Professors: J.E. Churchich (Chancellor's Research Scholar), Ph.D. Sheffield (England); G.J. Joshi, Ph.D. Poona (India); L.K. Mott, Ph.D. Rochester; W.J. Wits, Ph.D. Harvard.

Associate Professors: J. Kooistra (Head), Ph.D. Indiana; A.H. O'Brien, Ph.D. Duke; H.R. DeSelm, Ph.D. Ohio State; O.S. Smith, Ph.D. Duke; O.L. Wagner, Ph.D. Texas; L.J. Wilson, Ph.D. North Carolina State; R.J. Finn, Ph.D. Emeritus (Emeritus). Associate Professors: G.S. Lichty, Ph.D. (Distinguished Professor), Ph.D. Columbia; A.J. Wilson, Ph.D. (Undergraduate Coordinator), Ph.D. Texas; W.O. Smith, Ph.D. Duke; P.L. Wallen (Benwood Distinguished Professor), Ph.D. Tennessee.


The B.S. major in Biochemistry consists of Biology 210-220, Chemistry 350-360, 369, Physics 221-222, Biochemistry 410, 419, 420, 471, 481, and 472. Students must choose one of the following three concentrations: Biochemistry 451, 452, 453, 482; Biochemistry 451, 452, 463, 465, 482; or Biochemistry 451, 452, 463, 482. Requirements for each concentration are: Chemistry 350, 360, 369, Biochemistry 410, 419, plus a course for additional credit from Biochemistry 471, 481, and 452.

**BIOLOGY CONSORTIUM**

**BOTANY**

Professors: E.S. Schilling (Head), Ph.D. Indiana; J.D. Coykendall, Ph.D. Indiana; W.D. Duke; H.R. DeSelm (emeritus), Ph.D. Ohio State; A.K. Elgin; R.G. Hendrix (Alumni Distinguished Service Professor); J.L. Kimble; J. Koontz, Ph.D. California (Davis). Associate Professors: D.W. Wicks, Ph.D. Harvard; M. W. Wicks, Ph.D. California (Davis); J.F. Cornish, Ph.D. California (Davis); H. Newill, Ph.D. (Emeritus); J.R. Smolka (Distinguished Professor); P. Cabrera; A. S. Schmidt, Ph.D. (Undergraduate Coordinator). Assistant Professors: C.C. Amundsen, Ph.D. Colorado; A.S. Heinzelman, Ph.D. Ohio State; D.K. Smith, Ph.D. Undergraduate Coordinator; R.E. NE. Tennesse; B.E. Wofford, Ph.D. Herbology.


The B.S. major in Botany may be obtained by completing one of the three concentrations: General Program, Organizational Botany, or Cellular and Molecular Botany. Prerequisites for all three concentrations are: Botany 110-120 or Biology 110-120 and Chemistry 110-120. Consequences for the General Program is one of the following requirements: Mathematics 151-152 or 141-142 or 151-152, or Physics 121-122, or Geology 101-102, or Chemistry 101-102. Consequences for both the other concentrations is Chemistry 141-142 or 151-152, or Physics 121-122 or Geology 101-102, and Chemistry 350-360. General Program requirements are: 2 courses from Biology 210-220, Botany
### Chemistry

#### Professors:
- G. Mamontov (Head and Alumni Distinguished Service Professor), Ph.D. Cambridge (England); W. J. Bloor, Ph.D. Illinois; J. R. Peterson, Ph.D. California (Berkeley); J. H. Shibata, Ph.D. Washington; Z. B. Xue, Ph.D. UCLA.

#### Associate Professors:
- C. W. Woods, III (Associate Dean), Ph.D. New York University (New York); C. S. Feigerle, Ph.D. Stanford; J. E. Bartmess, Ph.D. Northwestern; K. W. C. Koehl, Ph.D. California (Berkeley); J. C. G. Kast, Ph.D. California (Berkeley); S. C. Feigl, Ph.D. Colorado; P. M. Schiell, Ph.D. Indiana.

#### Assistant Professor:
- J. N. Shihata, Ph.D. Washington, D.C.

#### Bachelor of Science in Chemistry

Students who desire to major in chemistry may select from either of two courses of study: Bachelor of Science or Bachelor of Science in Chemistry. Only the latter program is approved by the Committee on Professional Training of the American Chemical Society. It is designed to train students to go directly into positions in the chemical industry or to enter graduate study leading to positions in research and college teaching. A student in the B.S., in Chemistry program should consult the Head of the Department of Chemistry. For further information, contact the Head of the Department of Chemistry, 575 Bunsen Hall. For information concerning the Cooperative Program in chemistry, see description of the B.S. program below.

#### CURRICULUM REQUIREMENTS:

<table>
<thead>
<tr>
<th>Hours Credit</th>
<th>Chemistry 125-130 or preferably 127-131 or 128</th>
</tr>
</thead>
<tbody>
<tr>
<td>158</td>
<td>English Composition</td>
</tr>
<tr>
<td></td>
<td>Foreign Language (intermediate-level sequence)</td>
</tr>
<tr>
<td></td>
<td>Calculus</td>
</tr>
<tr>
<td></td>
<td>Elementary Physics</td>
</tr>
<tr>
<td></td>
<td>Distribution</td>
</tr>
<tr>
<td></td>
<td>Biology 210-220 or (preferably) 414</td>
</tr>
<tr>
<td></td>
<td>Physics 210-220 or (preferably) 441-442</td>
</tr>
<tr>
<td></td>
<td>Mathematics 241-251</td>
</tr>
<tr>
<td></td>
<td>Chemistry 320-330 or preferably 350-360</td>
</tr>
<tr>
<td></td>
<td>Chemistry 369</td>
</tr>
<tr>
<td></td>
<td>Chemistry 319-331 or preferably 471-481 or 473-483</td>
</tr>
<tr>
<td></td>
<td>Chemistry 471-481 or preferably 473-483</td>
</tr>
<tr>
<td></td>
<td>Chemistry 479</td>
</tr>
<tr>
<td></td>
<td>Chemistry 409</td>
</tr>
<tr>
<td></td>
<td>Chemistry 406</td>
</tr>
<tr>
<td></td>
<td>Chemistry Electives</td>
</tr>
<tr>
<td></td>
<td>Electives</td>
</tr>
</tbody>
</table>

Total: 124 hours

*Must be chosen from German, French, or Russian. A student has not had two years of one of these languages in high school or other coursework necessary before taking the intermediate level sequence.*

The major consists of Chemistry 310, 319, 330, 1 hour from 320, 330, 331, and 3 additional hours of upper-division Botany or related biological sciences. Prerequisite to the minor is Biology 110, 1101 or Biology 110, 120.

### Mathematics

**Bachelor of Science in Mathematics**

The B.S. in Mathematics is recommended for students planning a career in academia. Mathematics 141-142, Physics 131-132, and Chemistry 743-483; although not required, certain atomistic courses are strongly recommended for students planning to become chemists: Mathematics 241-251 and Chemistry 320, 325, 329, and 406. Because professional chemists need a reading knowledge of foreign languages, intermediate-level competency should be acquired in German, French or Russian. Students are advised to consult the chemical industry for information on professional training of the American Chemical Society.

Because a minor in chemistry shall consist of the successful completion of the following courses numbered 200 and above including 310, 319 (4 hours) and at least one of the following: Mathematics 330-360, 369 (8 hours); or 471-481, 479 (9 hours) or 473-483, 479 (8 hours).

#### Cooperative Program

The cooperative program is available to students who are chemistry majors. After the freshman year, the student alternates a semester in school with a semester in a job in the chemical industry. The program normally requires five years and involves a total of four work semesters and eight school semesters. Students in the program must have at least a 2.5 average to enter and remain in the program. Some opportunity exists for students to enter the program later than the end of the freshman year. Interested students should make application to the program director not later than the end of the first work period. Further information will be supplied on request.

####Placement in General Chemistry Sequences

 freshmen who have received recommendation by the Committee of Chemistry for placement in the first-year general chemistry sequences will be placed in the first-semester course that is consistent with their academic background and prior work.
serve as prerequisite for upper-division courses are 120-130, 121-131, and 128-138. Chemistry majors are strongly encouraged to take either of the latter sequences. Courses 100 and 110 emphasize organic and biochemistry, and may be used as prerequisite only for 431.

It is possible to move from one sequence to another if permission for substitution is obtained in advance. For example, a student who needs a completion of the 120-130 series after having completed 100 may substitute 102 for 120 with approval of the Department of Chemistry and may then take 130. Credit may be received for only one of the courses 102, 120, or 121.

In any chemistry course above the freshman level which has Chemistry 130 as a prerequisite, 110 may be used as a prerequisite with approval of the Department of Chemistry. Chemistry 128-138 is an honors course designed for the student who has already made considerable progress in science. Class size is limited to promote student-faculty interaction. Selection is based on ACT score, high school chemistry grade, and, if necessary, performance on a placement examination to be given during the first class meeting. A student receiving a passing grade below 128 will complete the year's work by taking 130 or 131.

Beginning students who have had high school chemistry and who have had additional experience (e.g., summer institute study, special research projects, home laboratory) are invited to apply during the summer to the head of the department for permission to take a proficiency examination in one or more semesters of general chemistry. If a satisfactory grade is made on the examination, credit will be allowed for the semester (or course) for which the exam was taken. The Department of Chemistry gives credit in general chemistry to students who present satisfactory scores on the National Advanced Placement Examination.

CHINESE
See Interdisciplinary Programs (Asian Studies).

CLASSICS

Professors: G. C. Gesell, Ph.D. North Carolina (Chapel Hill); H. C. Rutledge, Ph.D. Ohio State.

Associate Professors: G. C. Craig, Ph.D. North Carolina (Chapel Hill); S. D. Martin (Head), Ph.D. Michigan; J. E. Shelton, Ph.D. Vanderbilt; D. W. Tandy, Ph.D. Yale.

The B.A. major concentration in Greek consists of 27 hours including 21 hours of Greek language courses numbered above 200, and including 3 hours of Classics 422 (capstone); 6 hours chosen from Classics 221-222, 331, 334. The student majoring in Greek is encouraged to take Classics 422 (capstone).

The B.A. major concentration in Latin consists of 27 hours including 21 hours of Latin language courses numbered above 200, and including 3 hours of Classics 422 (capstone); 6 hours chosen from Classics 221-222, 331, 334, 491. The student majoring in Latin is strongly encouraged to have as background History 310 or 311 before taking the capstone course. The student concentrating in Latin is encouraged to begin to take advanced work in Greek.

The Laten minor consists of 18 hours including 12 hours of Latin language courses numbered above 200, and 6 hours chosen from Classics 221-222, 331, 334, 335. The student concentrating in Latin is encouraged to take Classics 422 (capstone).

Placement Examination. Students who transfer to UT, Knoxville from other colleges and students who enter with high school units in Latin should register for the courses in which they would normally be placed on the basis of their scores. During freshman orientation a placement test will be given, and students will be advised if a change in registration is indicated by the results.

Proficiency Examinations. Students who have acquired knowledge of Latin through private study or tutoring should request from the Department a proficiency test. A student who earns a grade of B or better in this examination is eligible for credit toward graduation. A student who omits a course in a sequence may receive credit for it by passing the appropriate proficiency examination.

COMPARATIVE LITERATURE
See Interdisciplinary Programs.

COMPUTER SCIENCE

Professors: J. H. Poore (Head), Ph. D. Georgia Tech; J. Dongarra, Ph. D. New Mexico; R. Gonzalez (ECE), Ph. D. University of Texas Austin; S. L. Graham (Emeritus), Ph. D. North Carolina; J. W. Straight, Ph. D. Duke.

Associate Professors: J. D. Case, Ph. D. Illinois; B. J. MacLennan, Ph. D. Purdue.

Assistant Professors: M. Berry, Ph. D. Illinois; J. R. Blair, Ph. D. Pittsburgh; H. A. Booth, Ph. D. Princeton; J. Gregor, Ph. D. Aalborg (DK); D. C. Mutchler, Ph. D. Duke; J. Plank, Ph. D. Princeton; D. W. Straight, Ph. D. Texas; J. M. Vose, Ph. D. Texas.

Instructor: M. B. Mayo, M. S. Tennessee.

Computer Science 102, 111, and 112 are prerequisites to a major in computer science which consists of 311, 320, 340, 360, 371, and 380, and an additional 3 hours of CS Advanced Topics Courses. Mathematics 141-142, 221-222, 231, 241, and 251, Physics 151-152, and English 411 are also required. Students must select a two-semester lab science sequence in either Biology or Chemistry, or a science approved by the Computer Science Department.

It is highly recommended that all Computer Science majors own a personal computer with external communications capability.

An undergraduate minor in Computer Science consists of 111 and 112 plus fifteen hours of 300 or 400 level courses.

Progression Standards:
Progression into the Computer Science major is based on the availability of space in the laboratories and other resources. Progression requirements are subject to periodic review and current requirements can be determined by consulting with an advisor in the Undergraduate Programs Office. Students who enter the College of Liberal Arts as freshmen or sophomores are expected to apply for the major immediately after attempting 10 hours in Computer Science.

In 1991 the progression standards were:
1. Has completed at least the following three courses at UT with an average of 3.0 or better: CS 102, 111, 112.
2. Has achieved an average of 2.5 or better in all grade in Computer Science courses taken at UT that apply to the major. All grades received for these courses are averaged.
3. Has received at least one A or repeated grade in a Computer Science course.
4. Has received at least one A or repeated grade in a Computer Science course.

Transfers from Other UTK Programs:
Students in other colleges or majors at UTK must apply for progression to the major at the end of the semester prior to 75 hours. As a minimum, all students must be admitted to the CS major for at least the last 30 hours of work. All students must be admitted by the last semester of the junior year. Students must be computer science majors at the time. After the fourth year, students are expected to take the Professional Examinations in Computer Science.

Transfers from other institutions:
Transfers from other institutions are generally handled the same as transfers from other UTK programs. However, a prospective transfer should consult with an advisor in the Computer Science Department to determine if they have completed the requirements. The Computer Science major cannot be declared until all courses with similar names to UTK courses can be accepted toward the major.
Appeals

The Graduate Catalog in Education offers Master of Science and Doctor of Philosophy degrees. This interdepartmental program provides advanced courses in contemporary ecology for students from undergraduate programs in biology and applied biology. Social science, management, and engineering. Research opportunities in both fundamental and applied ecology are intended to prepare students for academic careers as well as professional positions in industry or government. The Environment Sciences Division of the Oak Ridge National Laboratory (ORNL), the Tennessee Valley Authority provides advisors and research facilities. The Great Smokey Mountains, Cumberland Plateau, valley and ridge topography, TVA reservoirs and wild rivers provide loci to a spectrum of natural habitats and consequently biodiversity that is truly unique. In addition, faculty research provides opportunities for student research. Faculty listing the College of Business Administration.

ECOLOGY

For a B.A. major in Economics offers courses in a major or (2) Economics 311 and 313 plus 21 additional hours in upper division economics courses. Majors are encouraged to satisfy Part I of the Natural Science Distribution Requirements with one of the mathematics packages Mathematics 115-121, 122-141 or 142. Students planning graduate work in Economics should elect Mathematics 141-142.

For a B.A. major in Economics offers courses in a major or (2) Economics 311 and 313 plus 21 additional hours in upper division economics courses. Majors are encouraged to satisfy Part I of the Natural Science Distribution Requirements with one of the mathematics packages Mathematics 115-121, 122-141 or 142. Students planning graduate work in Economics should elect Mathematics 141-142.

For a B.A. major in Economics offers courses in a major or (2) Economics 311 and 313 plus 21 additional hours in upper division economics courses. Majors are encouraged to satisfy Part I of the Natural Science Distribution Requirements with one of the mathematics packages Mathematics 115-121, 122-141 or 142. Students planning graduate work in Economics should elect Mathematics 141-142.

For a B.A. major in Economics offers courses in a major or (2) Economics 311 and 313 plus 21 additional hours in upper division economics courses. Majors are encouraged to satisfy Part I of the Natural Science Distribution Requirements with one of the mathematics packages Mathematics 115-121, 122-141 or 142. Students planning graduate work in Economics should elect Mathematics 141-142.

For a B.A. major in Economics offers courses in a major or (2) Economics 311 and 313 plus 21 additional hours in upper division economics courses. Majors are encouraged to satisfy Part I of the Natural Science Distribution Requirements with one of the mathematics packages Mathematics 115-121, 122-141 or 142. Students planning graduate work in Economics should elect Mathematics 141-142.
IFY, before the student's major in American Literature. This requirement should be met, if possible, by the student's courses at the 300-400 level. Courses in the study of the English language, 271 or 372, are recommended for all majors.

Concentration in Literature: Ten English courses at the 300-400 level, including: (1) English 376 (Colloquium in Literature), to be taken, if possible, near the beginning of the student's major program; (2) at least two of the courses at 300 level or above; (3) at least one course which is based on an approach to literature other than literary history (see departmental brochure: Undergraduate Study in English, for a course list); and (4) five other courses, at least one of which is based on the study of American literature. (A minor in literature requires the above plus a single semester in the other; the single semester may be satisfied by high school work in that area.)

Major requirement consists of: Geology 310, 330, 334, 340, 370 (16 hours); any 3 Geology courses at the 400 level, and 6 hours of geology courses numbered 300 or above; Geology 440 (field camp) strongly recommended for all majors.

Minor requirement consists of: Prerequisites: Geology 101-102. Geology courses at least 16 hours of courses numbered 200 or above.

Concentration in Geology: Students wishing to prepare for a career in engineering or geology, or for work in other scientific fields, should consult the Curriculum Committee for advice on a program of study.

Concentration in Geography: Ten English courses at the 300-400 level, including: (1) a two-semester course in expository, technical, or critical writing; (2) three other courses, at least three of which must be literature courses selected in consultation with the advisor.

Individualized Program: The Director of Undergraduate Studies is empowered to approve individualized programs developed by students in consultation with their advisors. These programs should be designed to achieve academically sound objectives that are not addressed by the above requirements.

Honors: For students who qualify, the English Department offers special designation of courses in freshman, sophomore, junior, and senior levels. The freshmen and sopho-

more honors courses are based on regular sections in composition, in introduction to the various genres and subgenres of English literature, and world literatures. To be given "Honors" in English on the transcript, a student must have achieved a 3.0 or better average in a 3.5 or better grade point in English courses, and grades of A or B in English. An English minor consists of at least 15 semester hours of credit, including at least 6 hours of English courses at the 300-400 level. Certification for Teaching: Students planning to teach English in public schools should consult the Certification Clerk, Room 212, Claxton Education Building.

Graduate Study: Students wishing to enter a graduate program in English should address inquiries to the Dean of the Graduate School. To be accepted for graduate study in English, the student should in general have had at least eighteen semester hours of English courses at the undergraduate level; the freshman and sophomore levels must be completed with a grade of B or better, and a grade of B+ or better in all other undergraduate courses. Students who have taken twelve semester hours of English 101 and 102 may be required to take and pass a grade of B or better in a designated number of undergraduate courses at The University of Tennessee before being admitted to graduate study.Admission is also based on a satisfactory GRE score. Consult the Graduate Catalog for specific requirements.

FRENCH

See Romance Languages.
Placement Examination: Students who have had previous work in German or Russian either in high school or at another college or university should take a placement test to determine what level course they should enroll in. Placement tests are given for incoming freshmen during orientation in the summer and also the first week of each semester.

Proficiency Examinations: Students who have acquired a knowledge of German or Russian through private study, tutoring, residence in foreign countries, or the like, should request a proficiency test. A student earning a grade of C or better on such a test will receive credit for an appropriate number of courses. Superior students, in consultation with an advisor, are encouraged to proceed as rapidly as their achievement permits. Students who omit any course in a sequence may receive credit for it by passing a proficiency examination.

Foreign Study: Students are encouraged to study abroad, particularly through participation in the University's International Student Exchange Program (ISEP). The department is also prepared to recommend summer study programs and year abroad programs for students who are interested in foreign study. Credits from recognized foreign study programs can readily be transferred to UT, Knoxville.

For qualified students, the department also offers German 491 Foreign Study and Russian 491 Foreign Study. Students should consult the department before registering for the foreign study course.

B.A. Major in German: Majors or minors in German should carefully prepare their program in consultation with a departmental faculty advisor. The major is a prerequisite to the minor. The major should consist of at least 18 hours of German courses numbered above 300, including at least 300-312, and 6 additional hours of courses numbered above 300 (excluding 331-332 and courses in English translation). Students interested in the Language and World Business program should consult the department for advice as early as possible in their college career. Students must have attempted 45 hours in order to be considered for progression to the L&WB concentration. The academic record presented will be assessed by the Director of Language and World Business. Minimum requirements for progression to the concentration are a 2.7 cumulative average in the courses specifically required by the College of Liberal Arts in Basic Skills and Distribution and in the Language and World Business plan of study. L&WB students are required to take 15 hours in the following courses: German 301-302, 311-312, 331-332, and 441. Progression is based on availability of space in the program. Progression standards are adjusted periodically, and current requirements are available from the Director of L&WB.

B.A. Major in Russian: Russian 301-302 is a prerequisite to the major. Russian majors are strongly urged to consult their advisor and the departmental faculty advisor. The major consists of at least 18 hours of Russian courses, including at least 180-162 or their honors equivalents and (or their honorsequivalents) or 161-162 are prerequisites to a major which consists of 27 hours, including 15 hours of courses numbered 200 and above, including at least (1) 9 hours in Russian literature courses specifically required by the College of Liberal Arts in Basic Skills and Distribution and (2) 21 upper-division hours, distributed to include at least one course from each of the following areas: (a) European Language and Civilization, (b) U.S., (c) Asia, and (d) World History.

B.A. Major in Russian: Russian 301-302 is a prerequisite to the minor. The minor shall consist of at least 18 hours of Russian courses, including at least 180-162 or their honors equivalents and (or their honorsequivalents) or 161-162 are prerequisites to a major which consists of 27 hours, including 15 hours of courses numbered 200 and above, including at least (1) 9 hours in Russian literature courses specifically required by the College of Liberal Arts in Basic Skills and Distribution and (2) 21 upper-division hours, distributed to include at least one course from each of the following areas: (a) European Language and Civilization, (b) U.S., (c) Asia, and (d) World History.

Minor in German: German 301-302 or its equivalent is a prerequisite to the minor. The minor shall consist of at least 18 hours of German courses numbered above 300, which normally include German 301-312 and 6 additional hours of courses numbered above 300 (excluding 331-332 and courses in English translation). Only one course from the following courses may count toward the minor: Language and World Business courses, including at least one course from each of the following areas: (a) European Language and Civilization, (b) U.S., (c) Asia, and (d) World History.

Minor in Russian: Russian 301-302 is a prerequisite to the minor. The minor shall consist of at least 18 hours of Russian courses, including at least 180-162 or their honors equivalents, and (or their honorsequivalents) or 161-162 are prerequisites to a major which consists of 27 hours, including 15 hours of courses numbered 200 and above, including at least (1) 9 hours in Russian literature courses specifically required by the College of Liberal Arts in Basic Skills and Distribution and (2) 21 upper-division hours, distributed to include at least one course from each of the following areas: (a) European Language and Civilization, (b) U.S., (c) Asia, and (d) World History.

Minor in English for Non-Majors: The department welcomes non-majors in the course. Few history courses have formal prerequisites. History 111 is strongly recommended. History 112 is recommended. Some entering freshmen are invited to participate; interested students may apply. These survey courses are open to non-majors. A grade of C- or less in any part of the freshman year high school transcript will render the student ineligible for further honors work in history. An honors major consists of one successful course sequence in the junior level (303-306) and a senior thesis (407-408). The honors major consists of 30 hours, includ...
Asian Studies, Cinema Studies, Comparative Literature, Mediterranean Studies, African Studies, Linguistics, Russian and East European Studies, Urban Studies, and Women's Studies. See individual program descriptions below for the major and/or minor requirements.

AFRICAN AND AFRICAN-AMERICAN STUDIES

Director: Dr. Cynthia G. Fleming (History and African and African-American Studies)

African-American Studies Program offers both a major concentration and a minor in African-American Studies. AAAS courses are offered not only by the program itself but also by numerous departments within the College of Liberal Arts and some other colleges as well. This diversified sponsoring of AAAS courses enables the University to offer a particularly varied and sophisticated curriculum in the area of African-American Studies.

Major concentration: African-American Studies 201-202 are required in the concentration which consists of 24 hours from the African-American Studies curriculum. At least 15 upper-division semester hours are required from African-American Studies. Majors are required to take AAAS 431, preferably in their senior year. A minimum of 6 hours in AAAS 300 or above is required. It is strongly recommended that Introduction to African-American Studies 201 and Introduction to the Film Studies and Art 292 Film Design be taken before the selection of electives provided for in the minor.

African-American Studies is divided into three major concentrations: (a) Ancient Near Eastern Civilizations: Religious Studies 311, 312, 313; (b) Greek Culture: Classics 221, 222, 232, 253, 331, 334, 383; History 310, Philosophy 120, 320; Political Science 470; Religious Studies 301, 302, 305; and (c) Roman Culture: Classics 222, 223, 254, 303, 402; History 311, Philosophy 105, 305; Political Science 475; Religious Studies 301, 302, 318, 416. A minor in Ancient Mediterranean Civilizations consists of 18 hours, including at least two of the three core courses (Classics 381, 382, History 366). No more than one of the following courses may be applied to the minor: English 281 Introduction to Reading and Research, off-campus, or foreign language study. At least six hours of the minor must be taken at SUNY-Binghamton. "American Studies minor consists of 15 hours of coursework chosen from the program's list of electives, including American Studies 310, American Studies 410 or 440, and nine additional hours from at least two different disciplines.

ANCIENT MEDITERRANEAN CIVILIZATIONS

Chair: Dr. David W. Tandy (Classics)

Co-chair: Dr. Humphreys (Religious Studies)

The major concentration in Ancient Mediterranean Civilizations consists of Classics 381 and 382, History 366, and 18 additional hours. Students are encouraged to select courses in such a way that no more than 12 hours are in any one of the three divisions: (a) Ancient Near Eastern Civilizations: Religious Studies 311, 312, 313; (b) Greek Culture: Classics 221, 222, 232, 253, 331, 334, 383; History 310, Philosophy 120, 320; Political Science 470; Religious Studies 301, 302, 305; and (c) Roman Culture: Classics 222, 223, 254, 303, 402; History 311, Philosophy 105, 305; Political Science 475; Religious Studies 301, 302, 318, 416. A minor in Ancient Mediterranean Civilizations consists of 18 hours, including at least two of the three core courses (Classics 381, 382; History 366). No more than one of the remaining courses can be from one division. Courses of variable content, topics courses, independent reading and research, off-campus, or foreign language study in the Departments of Classics, History, Philosophy, or Religious Studies can be applied to the three divisions as approved. Students are encouraged to satisfy the foreign language requirement with Greek, Latin, or Classical Hebrew.

ASIAN STUDIES

Chair: Dr. Yen-p'ing Hao (History)

The Asian Studies major concentration consists of 26 credit hours from the upper-division courses of Asian Studies and approved departmental offerings. Twelve of these hours must be taken from courses listed within one of the four geographical-cultural areas (Islamic World, South Asia, China, Japan) and the other 12 hours must come from Subdivision A and B. Subdivision A includes Literature, Languages, Music, Philosophy, and Religious Studies. Subdivision B includes Anthropology, Economics, Geography, History, Political Science, and Sociology. The Asian Studies minor consists of Asian Studies 101-102 and 15 credit hours at the 200 level and above. Twelve credit hours must be taken from courses within one of the four geographical-cultural areas. Six credit hours must come from Subdivision A and six from Subdivision B. Three hours must be taken in courses in another geographical-cultural area.

CINEMA STUDIES

Chair: Dr. Charles Maland (English)

The Cinema Studies minor consists of fifteen hours, including English Introduction to Film Studies and Film Design. It is strongly recommended that Introduction to Film Studies and Film Design be taken before selection of electives provided for in the minor. Further information about the minor may be obtained from the Cinema Studies Program, Charles Maland, English Department. Other related courses are in the departments as history, philosophy, and sociology and may be approved through consultation with Dr. Maland. The minor consists of 15 hours of coursework chosen from the program's list of electives, including American Studies 201-202, 253, 331, 334, 383; History 310, Philosophy 120, 320; Political Science 470; Religious Studies 301, 302, 305; and (c) Roman Culture: Classics 222, 223, 254, 303, 402; History 311, Philosophy 105, 305; Political Science 475; Religious Studies 301, 302, 318, 416.

CINEMA STUDIES

Chair: Dr. H.G. Rur taped (Classics)

A major concentration in comparative literary studies consists of 27 hours including Comparative Literature 301 and 401, 402, and 9 hours of upper-division courses numbered 300 or above. Students must be proficient in English or in a foreign language, numbered 300 or above, from at least two of the following:
Other foreign study programs are also available at the University of Ceara in Fortaleza, Brazil. Students can earn credits through UT, Knoxville's Latin departments, and nine additional hours selected from a culture course at either the 300 or 400 level, an approved Spanish or Portuguese literature/culture course at either the 300 or 400 level, and a third year of foreign language study (literature). Majors are approved by the director of Latin American Studies at the University of Ceara in Fortaleza, Brazil (or other programs in Brazil of six hours in UT K's Summer Study Program). The Brazil concentration is divided among the following three categories: (1) history, philosophy, political science, and religious studies; (2) language and literature; (3) the arts: history of art, architecture, music, and speech and theatre. Courses should either form a related pattern (for example, courses in the literature and history of Medieval England or Italy) or should be closely related or at least 80% of the courses in the history of art or architecture.

A concentration in Medieval Studies focuses upon culture and society from the collapse of the Roman Empire to the 16th century. Such a concentration offers the opportunity to deepen one's self-awareness and broaden one's view of the range of human possibilities by studying a very different and remote culture: its conditions of life, social and political institutions, values and ideals, and modes of perception and expression.

A minor in Medieval Studies consists of Medieval Studies 201 and 403 and 12 additional hours distributed among the categories listed above for the major. In addition, students planning to go on to graduate school are strongly advised to supplement their Medieval Studies concentration with extensive work in one of the traditional disciplines.

A minor in Medieval Studies consists of Medieval Studies 201 and 403 and 12 additional hours distributed among the categories listed above for the major. In addition, students planning to go on to graduate school are strongly advised to supplement their Medieval Studies concentration with extensive work in one of the traditional disciplines.
from Political Science 469, 574; Russian 311-312; History 340-341, Philosophy 393; and additional hours in courses numbered 301-400 and above offered by the Russian section of the Department of Germanic and Slavic Languages. Recommended prerequisites to the major concentration are the completion of Russian 201-202 and Russian Culture 371-372.

URBAN STUDIES

Chair: James A. Spencer (Graduate School of Planning)

Urban Studies is a valuable major concentration for students who plan to work in such areas as housing, real estate, development, neighborhood organization, and environmental design.

A major concentration in Urban Studies consists of a minimum of 30 semester hours, including Urban Studies 250, 350, 450, 460, and at least 15 additional semester hours from the Urban Studies curriculum.

A minor consists of 18 semester hours, including Urban Studies 250 and 350 plus additional semester hours from the Urban Studies curriculum. Cumulative planning should be done with an advisor in Urban Studies. For more information, contact the chairperson of the Urban Studies Committee.

Approved Courses in other departments:

WOMEN'S STUDIES

Chair: Dr. Martha L. Osborne (Philosophy)

Women's Studies encourages inquiry into the full range of the human experience by raising new questions and opening new areas of research concerning women. The discipline enriches the traditional liberal arts curriculum by adding new perspectives on women's lives and contributions.

Women's Studies functions as a forum for the education of women and men about the roles they are playing in society, Women's Studies courses provide new questions and open new areas of study to women and an interest in the new role women can enhance a student's career preparation.

See Interdisciplinary Programs (Asian Studies). See Interdisciplinary Programs.

LATIN AMERICAN STUDIES

Chair: profs. J.B. Conway (Head), Ph.D. Louisiana State; C.S. Sundberg, Ph.D. Wisconsin; M.J. Soski, Ph.D. Oregon University.

The major concentration consists of 30 semester hours from the following: Language (at least nine hours in one of these areas), History (at least nine hours from each of the three major areas), and seven additional hours from the following: History 340-341, 342; Philosophy 393, 394; Political Science 469, 574; Russian 311-312; and additional hours in courses numbered 301-400 and above offered by the Russian section of the Department of Germanic and Slavic Languages. Recommended prerequisites to the major concentration are the completion of Russian 201-202 and Russian Culture 371-372.

ITALIAN

See Romance Languages.

JAPANESE

See Interdisciplinary Programs (Asian Studies).

LATIN

See Classics.

LATIN AMERICAN STUDIES

See Interdisciplinary Programs.

LINGUISTICS

See Interdisciplinary Programs.

MATHEMATICS

Professors: J.B. Conway (Head), Ph.D. Louisiana State; C.G. Doss, M.A. Tennessee.

The major consists of 30 semester hours from the following: Language (at least nine hours in one of these areas), History (at least nine hours from each of the three major areas), and seven additional hours from the following: History 340-341, 342; Philosophy 393, 394; Political Science 469, 574; Russian 311-312; and additional hours in courses numbered 301-400 and above offered by the Russian section of the Department of Germanic and Slavic Languages. Recommended prerequisites to the major concentration are the completion of Russian 201-202 and Russian Culture 371-372.

ITALIAN

See Romance Languages.

JAPANESE

See Interdisciplinary Programs (Asian Studies).

LATIN

See Classics.

LATIN AMERICAN STUDIES

See Interdisciplinary Programs.

LINGUISTICS

See Interdisciplinary Programs.

MATHEMATICS

Professors: J.B. Conway (Head), Ph.D. Louisiana State; C.G. Doss, M.A. Tennessee.

The major consists of 30 semester hours from the following: Language (at least nine hours in one of these areas), History (at least nine hours from each of the three major areas), and seven additional hours from the following: History 340-341, 342; Philosophy 393, 394; Political Science 469, 574; Russian 311-312; and additional hours in courses numbered 301-400 and above offered by the Russian section of the Department of Germanic and Slavic Languages. Recommended prerequisites to the major concentration are the completion of Russian 201-202 and Russian Culture 371-372.

ITALIAN

See Romance Languages.

JAPANESE

See Interdisciplinary Programs (Asian Studies).

LATIN

See Classics.

LATIN AMERICAN STUDIES

See Interdisciplinary Programs.

LINGUISTICS

See Interdisciplinary Programs.

MATHEMATICS

Professors: J.B. Conway (Head), Ph.D. Louisiana State; C.G. Doss, M.A. Tennessee.

The major consists of 30 semester hours from the following: Language (at least nine hours in one of these areas), History (at least nine hours from each of the three major areas), and seven additional hours from the following: History 340-341, 342; Philosophy 393, 394; Political Science 469, 574; Russian 311-312; and additional hours in courses numbered 301-400 and above offered by the Russian section of the Department of Germanic and Slavic Languages. Recommended prerequisites to the major concentration are the completion of Russian 201-202 and Russian Culture 371-372.

ITALIAN

See Romance Languages.

JAPANESE

See Interdisciplinary Programs (Asian Studies).

LATIN

See Classics.

LATIN AMERICAN STUDIES

See Interdisciplinary Programs.

LINGUISTICS

See Interdisciplinary Programs.
ARTS CURRICULUM SECTION OF THIS CATALOG, AND WHO HAVE BEEN APPROVED BY THE MEDICAL TECHNOLOGY ADMISSION COMMITTEE.

MUSIC

Professors:  

Assistant Professors:  

Assistant Professors:  

In June of 1991, the merger of the Department of Music and Science-Medical Technology/University Research was established with the approval of the Board of Trustees. All inquiries regarding degrees in music and music education should be directed to the Department of Music.

Bachelor of Music Degree:  
The Department of Music offers curricula leading to the Bachelor of Music degree with concentrations in music theory, composition, electronic music, music history and literature, and applied music (voice, piano, organ; sacred music-organ or piano; sacred music—voice, piano pedagogy and literature; string—symphony, chamber music, and string pedagogy; instrument studies multiple keyboard instruments; multiple woodwind instruments; studio music and jazz; string pedagogy). This program prepares students for graduate study or for positions in music for which a professional major degree is required.

The General Education (6 hours foreign language requirement) is in addition to the University admission requirement. Students may continue at the 200 level in a language begun in high school or elect to begin a new language at the 100 level. Students majoring in vocal performance (instrumental students) or majoring in one of two languages chosen from French, German and Spanish and who meet the following enrollment requirements: (1) students must participate in orchestra each semester; (2) windwood, brass, and percussion students must acquire a minimum of four credits in any of the following ensembles: marching band, concert band, campus band, symphony orchestra, jazz ensembles; (3) voice students must acquire a minimum of four credits in any of the following ensembles: Chamber Choir, Chamber Singers, University Women's Choir.

A student's preference for musical organization will be honored whenever possible, but factors considered in making the assignment will include playing ability, specific needs of various organizations, and previous performance experience at the University.

APPLIED MUSIC

Applied study is classified as Primary or Secondary.

Students studying their principal (major) instrument or voice will be accepted at the University on a basis of registration. This program is open to students at any level who do not meet proficiency requirements at any level may be required additional study at the junior level; course level and credit hours will be determined by the applied faculty.

All music majors are required to register for Music General 200-Solo Class and must be concurrently registered for a single unit within the College of Liberal Arts approved by the Board of Trustees. All inquiries regarding degrees in music and music education should be directed to the Department of Music.

Bachelor of Music Degree:  
The Department of Music offers curricula leading to the Bachelor of Music degree with concentrations in music theory, composition, electronic music, music history and literature, and applied music (voice, piano, organ; sacred music-organ or piano; sacred music—voice, piano pedagogy and literature; string—symphony, chamber music, and string pedagogy; instrument studies multiple keyboard instruments; multiple woodwind instruments; studio music and jazz; string pedagogy). This program prepares students for graduate study or for positions in music for which a professional major degree is required.

The General Education (6 hours foreign language requirement) is in addition to the Uni-
Appended Music Fees: $45 per semester for half-hour lesson (1 credit) $90 per semester for full-hour lesson (2-4 credit hours)

Computer registration and applied music fee payment must be verified in the Department of Music office no later than the end of the second day of classes of the fall, and spring semesters and the first day of the summer term, in order to maintain enrollment in applied music study.

Applied music fees are not refundable after lessons have been scheduled.

Bachelor of Music in Music Education: The Department of Music requires all music students to participate, with credit or as a registered auditor, in the appropriate instrumental or vocal organization each term in residence (on campus) as a music major, as approved by the student's advisor and the directors of the organizations concerned. Students preparing to be band directors are expected to enroll in marching band unless officially excused. Instrumental Major: Concert (Band), Campus Band, University Marching Band, or University Orchestra. Vocal Major: Concert Choir, University Choir, Chamber Singers.

Bachelor of Arts Degree: The Department of Music offers curricula leading to the Bachelor of Arts degree with a major in minor in Music, designed for those students who have a strong interest in music, but desire a comprehensive liberal studies program. The Bachelor of Arts Degree - Music Major:

Music Course Requirements Pre-requisites:

Music Ed. 100-190 levels.

Prerequisites for Admission: Music History 200, 8 hours in applied music, Music Education 200 levels 200 and above, distributed as follows:

Music Theory 493 or Music History 493 (3); Music General 491 (6). Total of 45-48 hours.

Music Minor requires all of the following:

Music History 200, 8 hours in applied music, and 4 hours in music electives. Pre-requisites are Music General 100 or equivalent and two semesters of applied music study by the end of the second year of college.

B.M. Curriculum in Music Education-Vocal General Concentration Keyboard Emphasis Hours Credit

Freshman
English Composition 110, 180 6
Music Theory 110, 120 6
Music Ed. 110 3
Music Performance (Major instrument) 4
Music History 200 3
Music General 300 3
Music Theory 290 3
Music History 200 3
Foreign Language 3

Sophomore
Music Theory 210, 220 6
Music Theory 230 3
Music Performance (Major instrument) 4
Music General 200 3
Music Education 210 3
Music History 230 3
Music Performance (Major woodwinds instrument) 3
Music History 210 3
Music Electives 3

Junior
Music Theory 310 3
Music Theory 360 3
Music Performance (Major instrument) 4
Music General 300 3
Music History 380 3
Music Electives 3

Senior
Music Performance (Major instrument) 4
Music General 301 3
Music Electives 3
Music Ed. 310, 320 6
Music Performance (Minor) 3
Music History 360 3
Music Electives 3

Total: 128 hours

Bachelor's degree in granted upon successful completion of 128 hours. The following requirements must be met to complete the Bachelor of Arts Degree in Music.

B.M. Curriculum in Music Education-Vocal General Concentration Keyboard Emphasis Hours Credit

Freshman
English Composition 110, 180 6
Music Theory 110, 120 6
Music Ed. 110 3
Music Performance (Major instrument) 4
Music History 200 3
Music General 300 3
Music Theory 290 3
Music History 200 3
Foreign Language 3

Senior
Music Theory 210, 220 6
Music Theory 230 3
Music Performance (Major instrument) 4
Music General 200 3
Music Education 210 3
Music History 230 3
Music Performance (Minor) 3
Music History 380 3
Music Electives 3

Junior
Music Theory 310 3
Music Theory 360 3
Music Performance (Major instrument) 4
Music General 300 3
Music History 380 3
Music Electives 3

Senior
Music Performance (Major instrument) 4
Music General 301 3
Music Electives 3
Music Ed. 310, 320 6
Music Performance (Minor) 3
Music History 360 3
Music Electives 3

Total: 128 hours

Bachelor of Music in Music Education: The Department of Music requires all music students to participate, with credit or as a registered auditor, in the appropriate instrumental or vocal organization each term in residence (on campus) as a music major, as approved by the student's advisor and the directors of the organizations concerned. Students preparing to be band directors are expected to enroll in marching band unless officially excused. Instrumental Major: Concert (Band), Campus Band, University Marching Band, or University Orchestra. Vocal Major: Concert Choir, University Choir, Chamber Singers.

Bachelor of Arts Degree: The Department of Music offers curricula leading to the Bachelor of Arts degree with a major in minor in Music, designed for those students who have a strong interest in music, but desire a comprehensive liberal studies program. The Bachelor of Arts Degree - Music Major:

Music Course Requirements Pre-requisites:

Music Ed. 110, 120 (6); Music Theory 130, 140 (2); Music Performance 100 level (2). Courses toward the major: Music Theory 210-220 (6); Music History 200 (3); Music History 210, 220 (6); Music Performance (Major instrument) 200 (3) and above (four semester minimum) (6); Music Education 200, 300 (3); Music History 310, 320 (6); Music Ensemble (4); Music Theory 310 (3), 3 hours seminar. Prerequisites: Music General 200 levels 200 and above, distributed as follows:

Music Theory 493 or Music History 493 (3); Music General 491 (6). Total of 45-48 hours.

Music Minor requires all of the following:

Music History 200, 8 hours in applied music, and 6 hours in music electives. Pre-requisites are Music General 100 or equivalent and two semesters of applied music study by the end of the second year of college.

B.M. Curriculum in Music Education-Vocal General Concentration Keyboard Emphasis Hours Credit

Freshman
English Composition 110, 180 6
Music Theory 110, 120 6
Music Ed. 110 3
Music Performance (Major instrument) 4
Music History 200 3
Music General 300 3
Music Theory 290 3
Music History 200 3
Foreign Language 3

Sophomore
Music Theory 210, 220 6
Music Theory 230 3
Music Performance (Major instrument) 4
Music General 200 3
Music Education 210 3
Music History 230 3
Music Performance (Minor woodwinds instrument) 3
Music History 210 3
Music Electives 3

Junior
Music Theory 310 3
Music Theory 360 3
Music Performance (Major instrument) 4
Music General 300 3
Music History 380 3
Music Electives 3

Senior
Music Performance (Major instrument) 4
Music General 301 3
Music Electives 3
Music Ed. 310, 320 6
Music Performance (Minor) 3
Music History 360 3
Music Electives 3

Total: 128 hours

Bachelor's degree in granted upon successful completion of 128 hours. The following requirements must be met to complete the Bachelor of Arts Degree in Music.

B.M. Curriculum in Music Education-Vocal General Concentration Keyboard Emphasis Hours Credit
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<td>6</td>
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<tr>
<td>Music Theory 230, 240</td>
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<tr>
<td>Music History 210, 220</td>
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<td>Music Perf. 230</td>
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<tr>
<td>Electives</td>
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<td>Music Keyboard 230</td>
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<tr>
<td>Music Keyboard 340, 350</td>
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<tr>
<td>Historical Studies</td>
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### B.M. Curriculum in Studio Music and Jazz

**Freshmen**

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<thead>
<tr>
<th>Discipline</th>
<th>Course Code</th>
<th>Hours</th>
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<tbody>
<tr>
<td>English Composition</td>
<td>101, 102</td>
<td>6</td>
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<tr>
<td>Music Theory</td>
<td>110, 120</td>
<td>6</td>
</tr>
<tr>
<td>Music Theory 130, 140</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Music History</td>
<td>200</td>
<td>3</td>
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<td>Music History 360</td>
<td>3</td>
<td></td>
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<tr>
<td>Music Jazz 110</td>
<td>2</td>
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</tr>
<tr>
<td>Music Performance (100 level)</td>
<td>1</td>
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<tr>
<td>Music Ensemble</td>
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<tr>
<td>Music General 200</td>
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**Sophomore**

<table>
<thead>
<tr>
<th>Discipline</th>
<th>Course Code</th>
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<tbody>
<tr>
<td>Music Theory 210, 220</td>
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<td>Music Theory 230, 240</td>
<td>2</td>
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<tr>
<td>Music History 210, 220</td>
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<tr>
<td>Music Jazz 120</td>
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<tr>
<td>Music Performance (200 level)</td>
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<td>Music Ensemble</td>
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<tr>
<td>Music General 200</td>
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<tr>
<td>Historical Studies</td>
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**Junior**

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<tr>
<th>Discipline</th>
<th>Course Code</th>
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<tbody>
<tr>
<td>Music Theory 310</td>
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<td>Music Theory 320</td>
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<td>Music Jazz 410</td>
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<td>Music Theory 290</td>
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<tr>
<td>Music Performance (400 level)</td>
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<tr>
<td>Music Ensemble</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>Music General 200</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>Music General 410</td>
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<tr>
<td>Music History</td>
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<tr>
<td>Directed Study</td>
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<tr>
<td>Electives</td>
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</tbody>
</table>

**Total: 133 hours**

*Must be chosen from French, German, or Italian.

### B.M. Curriculum in Voice

**Freshmen**

<table>
<thead>
<tr>
<th>Discipline</th>
<th>Course Code</th>
<th>Hours</th>
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<tbody>
<tr>
<td>English Composition</td>
<td>101, 102</td>
<td>6</td>
</tr>
<tr>
<td>Music Theory 110, 120</td>
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<tr>
<td>Music Theory 130, 140</td>
<td>3</td>
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</tr>
<tr>
<td>Music History</td>
<td>200</td>
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<tr>
<td>Music Performance</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Music Part 155</td>
<td>8</td>
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<tr>
<td>Music Ensemble</td>
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<tr>
<td>Music Keyboard 110, 120</td>
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<td>Music General 200</td>
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<tr>
<td>Directed Study</td>
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<tr>
<td>Electives</td>
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**Sophomore**

<table>
<thead>
<tr>
<th>Discipline</th>
<th>Course Code</th>
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<tbody>
<tr>
<td>Music Theory 210, 220</td>
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<tr>
<td>Music Theory 230, 240</td>
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<tr>
<td>Music History 210, 220</td>
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<td>Music Part 155</td>
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<tr>
<td>Music Ensemble</td>
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<td></td>
</tr>
<tr>
<td>Music Keyboard 210, 220</td>
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<tr>
<td>Music General 200</td>
<td>0</td>
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<tr>
<td>Music General 411</td>
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<td>Music History</td>
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<tr>
<td>Directed Study</td>
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<td></td>
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<tr>
<td>Electives</td>
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</tbody>
</table>

**Senior**

<table>
<thead>
<tr>
<th>Discipline</th>
<th>Course Code</th>
<th>Hours</th>
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<tr>
<td>Music History 380</td>
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<tr>
<td>Area Literature</td>
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<tr>
<td>Music Performance</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>Music Electives</td>
<td>3</td>
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<tr>
<td>Natural Science</td>
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<tr>
<td>Senior</td>
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</tbody>
</table>

**Total: 127 hours**

*Must be chosen from French, German or Italian.*

### ORGANIZATIONAL PSYCHOLOGY PROGRAM

See Graduate School.

### PHILOSOPHY

#### Professors:
- G.D. Bennett (Head), Ph.D. Michigan; R.E. Aguila, Ph.D. Northwestern; L.B. Cetkovic, Ph.D. Western Michigan; M.J. Lenzi, Ph.D. Michigan; D. Van de Vate, Ph.D. Yale.

#### Associate Professors:
- J.L. Fennell, Ph.D. Tulane; S.M. Cohen, Ph.D. Northwestern; K.A. Bohstedt, Ph.D. Arizona State; M.L. Osborne, Ph.D. Tennessee.

#### Assistant Professors:
- H.F. Fuson, Ph.D. Georgia; Francesco Baiti, Ph.D. Western Ontario; M. Lenzi (Adjunct).

#### Major Prerequisites:
- Three hours of logic, normally 130 or 135.
- 24 hours of courses numbered 200 or above, including three hours of ethics, normally 240 or 440, and six hours in the history of philosophy, three in ancient, normally 320, and three in modern,
Research Assistant Professors: L. Davis (UTS), Ph.D.; Aukland; H. Faddis, Ph.D., Tennessee.

Instructors: R.C. Fairman, B.A. Earlham College; T. Riedinger, M.S. Vanderbilt.

PHYSICS

B.D. Major: The undergraduate physics major provides a thorough introduction to all of the core disciplines of physics so that students are prepared to pursue related specialties at a later point in their career. Students with special interests are encouraged to pursue their interests through research projects and/or independent study under the direction of members of the physics faculty through Physics 495.

The major consists of: Physics 301-302; Mathematics 231 and 241; Physics 311 (students intending to pursue graduate studies in Physics should also take 312 and 411 or electives); Physics 321; Physics 431-432; Physics 411-412 (341 and 342 or 351 may be substituted for students who do not intend to pursue graduate study). Physics 361, Physics 461. Physics 401 is recommended. Total major hours: 42. Prerequisites to the honors concentration are: Physics 137-138, Mathematics 142-143.

The honors concentration consists of: Physics 340; Mathematics 231 and 241; Physics 311-312 (students intending to pursue graduate studies in Physics should also take 421 as an elective); Physics 321; Physics 431-432; Physics 411-412 (341 and 342 or 351 may be substituted for students who do not intend to pursue graduate study). Physics 361, Physics 461. Physics 401 is recommended. Total honors concentration major hours: 41.

Minor: In a physics minor student shall consist of Physics 131-132, 231-232 and 10 hours from physics and astronomy courses numbered 300 and above. The honors concentration shall consist of Physics 137-138, Physics 340 and 12 hours from physics courses numbered 300 and above.

POLITICAL SCIENCE

Major in Political Science: 48. With major constitutes a two year program. Political Science 101 and 401 are prerequisites to the major and 20 hours of courses numbered 300 and above. The major consists of 15 hours of courses numbered 300 and above.

Major in Political Science with a Concentration in Public Administration: 42. Prerequisite to the major is normally a two year program. Political Science 101 and 401 are prerequisites to the major which consists of 27 hours: 387-388, 487-488, and 15 additional hours. In Economics students must take Economics 201 and Economics 202. The major consists of 27 hours: 387-388, 487-488, and 15 additional hours. In Political Science, students must complete any of the seven courses described under Core Disciplines of Political Science, and will normally be required to complete three of the seven courses with a grade of B or above.

Graduate in Political Science: The Honors concentration encourages highly motivated students to obtain a master's degree in Political Science and to pursue graduate studies in Political Science. The major consists of 24 hours of courses numbered 300 and above.

To graduate with Honors in Political Science, students must: (1) obtain a cumulative GPA of 3.0 in all economics and philosophy courses numbered 300 and above, and (2) obtain a minimum cumulative GPA of 3.3 in Political Science, and will normally be required to complete three of the seven courses with a grade of B or above.

Major in Political Science with a Concentration in Public Administration: Students majoring in Political Science who wish to prepare for a career in the public service may select to the major in Political Science or the major in Public Administration. The major consists of 27 hours: 387-388, 487-488, and 15 additional hours. In Political Science, students must complete any of the seven courses described under Core Disciplines of Political Science, and will normally be required to complete three of the seven courses with a grade of B or above.

To graduate with Honors in Political Science, students must: (1) obtain a cumulative GPA of 3.0 in all economics and philosophy courses numbered 300 and above, and (2) obtain a minimum cumulative GPA of 3.3 in Political Science, and will normally be required to complete three of the seven courses with a grade of B or above.

Minor in Political Science: 12. The minor consists of 15 hours of courses numbered 300 and above.
Major: The Department offers two concentrations: General and the Academic Concentration. The General Concentration is broad with many options. The Academic Concentration is intensive for those students planning post-graduate study in psychology or a related field and has fewer options. Students wishing to follow the General Concentration must satisfy pre-requisites of one year of a biological science (e.g. Biology 191 and 192, 110-120, Psychology 110 with a grade of C or better, and a GPA of at least 2.00). Completion of this Concentration requires: (1) Psychology 210 or 220, (2) 75, 385, or 395, (3) Three courses from Psychology 301, 305, 342, or 371; (4) Two elective courses at the 300 or 400 levels. Note: 399, 489, 491, 492, 493 cannot be used in this minor.

Italian Minor: Consists of 18 hours of courses numbered 311 and above. All minors must have the following courses (or their equivalents with consent of the department): 311, 313, 341 or 342, 413, 414, 415; 3 hours of language oriented or civilization courses at the 300 or 400 levels. Language concentration students must also have 6 hours of literature at the 400 level. 3 hours of literature must be given in the course 410, 411, 412, 413, 414, 415; 3 hours of language oriented or civilization courses at the 300 or 400 levels. Language concentration students must also have 9 hours of literature oriented or civilization courses at the 300 or 400 levels.

French Minor: The minor consists of 18 hours of courses numbered 311 and above. All minors must have the following courses (or their equivalents with consent of the department): 311, 313, 341 or 342, 413, 414, 415; 3 hours of language oriented or civilization courses at the 300 or 400 levels. All minors must have 9 hours of literature oriented or civilization courses at the 300 or 400 levels.

Italian Minor: Consists of 13 hours numbered 311 and above. All students must have 6 hours of literature at the 300 level or above, not including related language courses. It is recommended that students minoring in foreign languages discuss their program with a member of the department faculty.

Assistant Professors: M. Slaven, Ph.D. Kent State; R.E. Hopson, Ph.D. Michigan State.

Assistant Professors: M.G. Johnson, Ph.D. Johns Hopkins; A. McNerney, Ph.D. Yale; W. G. Morgan, Jr., Ph. D. Ohio;

Assistant Professors: D. Baldwin, Ph.D. Kent State; R.E. Hopson, Ph.D. Michigan State.

Major: The department offers two concentrations: General and the Academic Concentration. The General Concentration is broad with many options. The Academic Concentration is intensive for those students planning post-graduate study in psychology or a related field and has fewer options. Students wishing to follow the General Concentration must satisfy pre-requisites of one year of a biological science (e.g. Biology 191 and 192, 110-120, Psychology 110 with a grade of C or better, and a GPA of at least 2.00). Completion of this Concentration requires: (1) Psychology 210 or 220, (2) 75, 385, or 395, (3) Three courses from Psychology 301, 305, 342, or 371; (4) Two elective courses at the 300 or 400 levels. Note: 399, 489, 491, 492, 493 cannot be used in this minor.

Italian Minor: Consists of 18 hours of courses numbered 311 and above. All minors must have the following courses (or their equivalents with consent of the department): 311, 313, 341 or 342, 413, 414, 415; 3 hours of language oriented or civilization courses at the 300 or 400 levels. Language concentration students must also have 6 hours of literature at the 400 level. 3 hours of literature must be given in the course 410, 411, 412, 413, 414, 415; 3 hours of language oriented or civilization courses at the 300 or 400 levels. Language concentration students must also have 9 hours of literature oriented or civilization courses at the 300 or 400 levels.

French Minor: The minor consists of 18 hours of courses numbered 311 and above. All minors must have the following courses (or their equivalents with consent of the department): 311, 313, 341 or 342, 413, 414, 415; 3 hours of language oriented or civilization courses at the 300 or 400 levels. All minors must have 9 hours of literature oriented or civilization courses at the 300 or 400 levels.

Italian Minor: Consists of 27 hours in courses numbered 311 and above. All minors must take 311, 313, 341, 342, and 401. Italian Minor: Consists of 18 hours in courses numbered 311 and above. Students planning a minor must consult with a departmental advisor.
Sociology

Department: Sociology and Anthropology

Program Director: Dr. Harry C. Jacobson

College Scholars: A major with selective admission. For details contact the director. All Scholars must enroll in one of the College Scholars Seminars 317-318 each term. They are encouraged to complete work in College Scholars Honors 491-492-493. Each student must complete a substantial piece of research or creative imagination. College Scholars 491 is the appropriate course to use to receive credit for this work.

Spanish

See Romance Languages.
further information on careers in statistics and of statistical methods, including applications in or for professional work in various applications the Statistics Department in the College of