College of Liberal Arts

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The College of Liberal Arts is home to a wide array of academic disciplines and inter-disciplinary 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 further study at the graduate level and 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 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 the individual who enters business, industry, the professions, or government service, it furnishes a broadly useful and well-rounded educational background. 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 liberally 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 universities of the world are 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 best 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 one of twenty-six disciplines and a dozen or more inter-disciplinary 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 this 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 students maximum freedom 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. Three 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-Professional Program is offered for those who wish to participate in the cooperative 3+2 curricula in the health sciences (medicine,...
dentistry, pharmacy, veterinary medicine, or medical technology). Students taking one of the health sciences curricula proceed directly to specialized training in the chosen area after the third year of liberal arts study and complete the first year of professional study in lieu of satisfying the requirements for the B.S. degree with a major concentration in the college.

**Bachelor of Science in Chemistry** - (See Department of Chemistry.)

**3) BACHELOR OF FINE ARTS**

(See Department of Art.)

**4) BACHELOR OF MUSIC**

(See Department of Music.)

**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.S. majors and 24-57 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 minors (minimum 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 expository prose coherently and convincingly.
2. To improve 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)

1. By completing six credits in English writing courses in one of the following series:
   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 toward those requirements. (c) English 131 and 132 (Composition for Non-Native Speakers of English).
   2. By earning a score of 4 or 5 on the College Board Advanced Placement Test in English.
   3. By obtaining CLEP credit for English composition.

**Placement: Student eligibility for English 118 (Honors: English Composition) will be determined on the basis of ACT or SAT scores and a placement exam. Selected students will be placed in English 103 (Writing Workshop) based on ACT or SAT scores, and may not drop this course without departmental approval. (Details available from the English Department.)**

**NOTE**: A student must complete the English Composition requirement prior to enrolling in 200 level (or above) English courses.

**Foreign Language**

Purpose:

1. To learn the basic grammar, syntax, and vocabulary of a foreign language.
2. To be able to use a foreign language independently as a tool for oral communication and reading.
3. To acquire techniques of language learning.
4. To develop insight into the phenomenon of language.
5. To complement the study of certain aspects of a foreign culture or civilization.

Requirement:

Completion of the intermediate level sequence of a foreign language or demonstration of competence on a waiver or proficiency examination. All students wishing to enroll in a French, German, Latin or Spanish course who had the same language in high school and who have not yet had a college course in it, must take a UTK placement examination before enrolling. This rule does not apply to students who receive AP credit in the language. Placement in the appropriate course will be determined by the score on the examination. Ordinarily a student will not be allowed to enroll in a course at a level above that determined by his or her placement examination score. Students who feel they are wrongly placed should consult the appropriate language department. The examination will be administered during summer orientation and at designated times during the fall, spring and summer. Students who place into 200 level language courses will receive six hours of elementary language credit. Students who place into 300 level courses will receive six hours of intermediate language credit. Students whose native language is not English may meet this requirement by passing English 131 and 132 and any two semester course package from the Humanities Part I options. These latter courses may also be counted toward the Humanities Distribution Requirement. The following sequences satisfy the requirement:

- **Asian Languages**

- **Greek (Classics)** 261 Intermediate Greek:

- **Latin (Classics)** 251 Intermediate Latin:

- **Mathematics, Formal Reasoning, or Logic**

  Purpose:

  1. To develop the basic calculation skills necessary to fully appreciate the course of study at the university.

  2. To understand the logical processes involved in mathematics, inductive or deductive reasoning, or computing.

  3. To acquire the skills that will aid in the process of critical analysis, problem solving, and decision making.

  Requirement:

  One three-credit course chosen from those listed below:

  Students with a Mathematics ACT score of 24 or above (25 or above on the Enhanced ACT) achieve a quantitative score of 500 or above on the SAT, or those who pass a waiver or proficiency examination on material equivalent to any of these courses, will be exempt from this requirement (0-3 credits). Standards for waiver or proficiency examinations will be set by the appropriate department. Exemption from this requirement will also be granted to students who complete a two-course mathematics package under Divisional Distribution: Mathematics 110 Algebraic Reasoning; 130 Precalculus; Philosophy 130 Critical Thinking; 135 Formal Logic.

**DISTRIBUTION**

1. **Divisional Distribution**

   a. **Non-United States History**

     Purpose:

     a. To acquire an appreciation for the richness of the past as a statement of human capability, aspiration, and achievement.

     b. To develop a historical perspective on a civilization that differs from or serves as the foundation for studying one's own.

     c. To develop the ability to explore continuity and change among historical events and movements, and to be able to assess them critically.

     d. To learn to keep one's own place and time in proper perspective, and to appreciate it more fully because of an awareness of human creativity as revealed through a study of the past of a civilization.

     e. To further develop writing skills.

     Requirement:

     Completion of a six-credit, two-course, writing emphasis1, lower-division sequence in non-United States History (6 credits).

1Writing Emphasis Courses require at least 2,000 words, normally comprising one sustained essay or report of at least 1,000 words plus additional writing assignments such as in-class essay exams, journals, book reviews, etc. The purpose of the requirement is to help students a) learn course materials through writing, b) develop critical thinking skills, c) demonstrate the ability to sustain an argument, and d) strengthen existing writing skills.
students may fulfill this requirement with a United States History sequence. The following sequences satisfy this requirement:

- Asian Studies 101-102 Asian Civilization
- History 151-152 Development of Western Civilization; 151-152 Honors: Development of Western Civilization; 161-162 A History of World Civilization.
- Latin American Studies 251-252 Introduction to Latin American Studies.
- Medieval Studies 201-202 Medieval Civilization.
- Philosophy 100 Foundations of Western Thought: Antiquity through 1500; Philosophy 121 Foundation of Western Thought: 1500 through Early Twentieth Century

b. Natural Science

**Purpose:**

- To know and understand the basic vocabulary of at least one scientific discipline.
- To learn the basic discoveries and their importance in one scientific discipline.
- To be able to use the tools (i.e., mathematics, laboratory equipment, computers, etc.) of one scientific discipline.
- To understand how to devise hypotheses and how to devise and perform experiments to test them.
- To learn to apply the methods of at least one scientific discipline in a "hands on" laboratory experience.
- To be able to analyze a situation on a college level from one particular scientific perspective.

**Requirement:**

- a. Part I: A two-course physical or biological science sequence that includes laboratory work. The following sequences satisfy Part I of this requirement:
  - Astronomy 161-162 Introductory Astronomy with Laboratory; 217-218 Honors: Introductory Astronomy.
  - Biology 110-120 General Biology; 118-128 Honors: General Botany.
  - Chemistry 100 Principles of Chemistry; 110 Introduction to Organic and Biochemistry; and 120-130 General Chemistry; 121-131 General Chemistry for Chemistry majors; 128-138 Honors: General Chemistry; 138-142 Principles of Chemistry.
  - Geology 101-102 Principles of Physical Geology of the Natural Environment.
- b. Part II: A two-course package in science, mathematics, and/or computer science. The following course packages or any sequence stated in Part I will satisfy this requirement:
  - Anthropology 110 Human Origins (package with 120); 210 Principles of Biological Anthropology (package with 110).
  - Astronomy 151-152 Introductory Astronomy (non-lab).
  - Audiology and Speech Pathology 306 Speech Science II: Anatomy and Physiology; 371 Audiology I. Botany 306 Genetics and Society (package with 309) (Same as Anthropology 306); 309 Biology of Human Affairs (package with 306); 310-320 Plant Evolutionary Survey I, II; 330 Field Botany (can be taken as a package with 310 or 320).
  - Computer Science 102 Introduction to Computer Science; and either 111 Computer Organization or 112 Data Structure.
  - Geology 201 Darwin, Dinosaurs, and Extinctions: An Introduction to Evolution; 202 Earth as an Ecosystem: Modern Problems and Solutions; 205 Geology of the National Parks (Package of any two courses).
  - Mathematics 115 Statistical Reasoning (package with 121); 121 Calculus A (package with 115 or 122 or Statistics 201); 122 Calculus B (package with 115 or 121); 141-142 Calculus I, II (or 147-148 Honors); 151-152 Biocalculus I, II; 201 Structure of the Number System; 202 Probability, Statistics, and Euclidean Geometry.
  - Microbiology 210 General Microbiology (package with Zoology 230).
  - Physics 121-122 Introductory Physics; 141-142 Nature of the Physical World.
  - Statistics 201 Introduction to Statistics (package with Mathematics 121).
  - Zoology 210-220 Human Biology; 230 Human Physiology (package with Micro 210).
  - Social Science

**Purpose:**

- To promote understanding of society and individual relationships.
- To develop a critical understanding of one or more approaches, perspectives, or methodologies used in the social sciences.
- To develop analytical skills relevant to current social, economic, or political problems, their origins in society and individuals, and possible perspectives for their resolution.

**Requirement:**

- a. Bachelor of Arts students must complete a minimum of 12 credits from at least two departments or programmatic areas indicated below.
- b. Bachelor of Science students must complete a minimum of 6 credits from at least two departments or programmatic areas indicated below.
  - Anthropology 120 Prehistoric Archaeology; 130 Cultural Anthropology; 362 Principles of Archeology.
  - Audiology and Speech Pathology 320 Speech and Language Development.
  - Botany 305 Socio-Economic Impact of Plants.
  - Economics 100 Survey of Economic Ideas; 201 Introductory Economics: A Survey Course; 207 Honors: Introductory Economics.
  - Educational and Counseling Psychology 210 Psycho-educational Issues in Human Development.
  - Geography 101-102 World Geography; 320 Cultural Geography; Core Concepts; 323 Behavioral Geography.
  - Human Services 220 Introduction to Human Services.
  - Psychology 110 General Psychology; 117 Honors: General Psychology; 220 Behavior and Experience: Humanistic Psychology.
  - Religious Studies 232 Varieties of Religious Community (Same as Sociology 232); 301 Religious Myth, Symbol, and Ritual.
  - Sociology 100 General Sociology; 110 Social Problems and Social Change; 344 Power in Society; 370 Social Psychology.
  - Speech Communication 100 Introduction to Speech Communication; 220 Interpersonal Communication; 260 Communication and Society; 300 Nonverbal Communication; 330 Group Communication.
  - Women's Studies 220 Women in Society; 375 Gender in Society (Same as Sociology 375.)
  - Humanities

**Purpose:**

- To learn to appreciate and interpret significant literary, philosophical, or religious texts by study and application of selected methods or traditions of thought.
- To develop further abilities to reason critically, to construct arguments, to think creatively, to analyze objectively, to assess evidence, to perceive assumptions, and to respond to and appreciate values.
- To develop further writing skills.
- To learn to manipulate symbols (i.e., words, sounds, images, body movements) in a variety of ways and to employ these symbols critically, affectively, analytically, and evaluatively.
- To develop abilities to participate as an enlightened observer or as an artist in a discipline within the visual, spatial, musical, theatrical, rhetorical, or written arts.

**Requirements:**

- a. Bachelor of Arts students: 1. Part I: Literature or Philosophical Perspectives. A two-semester course package in either literature or a philosophical perspective. Writing Emphasis Courses.
  2. Part II: Arts, Literature or Philosophical Perspectives. Either one course in a discipline to help study or practice of the arts; or one course in literature if a philosophical perspectives package is chosen to meet Part I; or one course in a philosophical perspective if a literature package is chosen for Part I. Writing Emphasis Courses, except for hands-on practice of the arts courses. Part I and Part II will be satisfied by selecting packages/courses from the following four lists in accordance with the instructions above. b. Bachelor of Science students must complete a minimum of 6 credits from the courses listed below; no more than 3 credits may be taken in the Arts.
  1. The following course packages are designated literature packages:
     - Asian Languages 311-312 Chinese Literature in English Translation; 313-314 Japanese Literature in English Translation.
     - Classics 253-254 Greek and Roman Literature in English Translation.
     - Comparative Literature 202-203 Cross-cultural Perspectives in World Literature.
     - English 201 British Literature I: Beowulf through Johnson; 202 British Literature II: Wordsworth to the Present; 201 Literature of the Western World I: Ancient, Medieval and Renaissance; 222 Literature of the Western World II: Enlightenment, Romantic and Modern. (two of three) 231 American Literature I: Colonial Era to the Civil War; 232 American Literature II: Civil War to the Present; 233 Major Black Writers.

*Writing Emphasis Courses require at least 2,000 words, normally comprising one sustained essay or report of at least 1,000 words plus additional writing assignments such as in-class essay exams, journals, book reviews, etc. The purpose of the requirement is to help students a) learn course materials through writing; b) develop critical thinking skills; c) demonstrate the ability to sustain an argument; and d) strengthen existing writing skills.*
1. University Studies: Students must complete a minimum of 6 credits in one of the three areas indicated below and 3 credits from one of the remaining two areas (or 9 credits for this requirement). Writing Emphasis Courses:

   a. United States Studies
   
   Purpose:
   a. To develop an appreciation and knowledge of United States culture and civilization.
   b. To provide a basis from which to compare foreign cultures and civilizations.
   c. To develop a critical understanding of the sources of values and traditions that constitute contemporary United States civilization.
   d. To develop an understanding of the relationship between individual and societal behavior.
   e. To further develop writing skills.
   
   The following courses are designated United States Studies courses:

   African and African-American Studies 364
   Contemporary Issues in African-American Education (Same as Ed. C&I 364); 429 History and Philosophy of African-American Education (Same as Ed. C&I 429); 480 Black Communities in Urban America; 483 African-American Women in American Society (Same as Women's Studies 483).

   Anthropology 310 Introduction to American Studies.
   
   Anthropology 310 North American Indians; 312 Appalachian Culture; 315 African-American Anthropology (Same as African and African-American Studies 315); 320 African American Culture; 360 North American Prehistory.

   a. United States Studies
   
   2. Upper Level Distribution

   Bachelor of Arts students must complete a minimum of 6 credits in one of the three areas indicated below and 3 credits from one of the remaining two areas (or 9 credits for this requirement). Writing Emphasis Courses:

   a. United States Studies
   b. Foreign Studies
   c. Capstone Experience.

   a. United States Studies
   
   Purpose:
   a. To develop an appreciation and knowledge of United States culture and civilization.
   b. To provide a basis from which to compare foreign cultures and civilizations.
   c. To develop a critical understanding of the sources of values and traditions that constitute contemporary United States civilization.
   d. To develop an understanding of the relationship between individual and societal behavior.
   e. To further develop writing skills.
   
   The following courses are designated United States Studies courses:

   African and African-American Studies 364
   Contemporary Issues in African-American Education (Same as Ed. C&I 364); 429 History and Philosophy of African-American Education (Same as Ed. C&I 429); 480 Black Communities in Urban America; 483 African-American Women in American Society (Same as Women's Studies 483).

   Anthropology 310 Introduction to American Studies.
   
   Anthropology 310 North American Indians; 312 Appalachian Culture; 315 African-American Anthropology (Same as African and African-American Studies 315); 320 African American Culture; 360 North American Prehistory.

   a. United States Studies
   
   3. Foreign Studies
   
   Purpose:
   a. To develop an appreciation and knowledge of a foreign culture and civilization.
   b. To provide a basis from which a student can analyze her or his own culture.
   c. To develop a critical understanding of the sources of values and traditions that constitute a foreign culture and civilization.
   d. To develop an understanding of the relationship between individual and societal behavior in a highly interdependent world system.
   e. To further develop writing skills.
   
   The following courses are designated Foreign Studies courses:

   a. United States Studies
   
   NOTE: If Western Civilization (History 151-152), Medieval Civilization (Medieval Studies 201-202), or Foundations of Western Thought (Philosophy 120-121) is taken to satisfy the non-United States History requirement under Divisional Distribution, the European concentration may not be elected here. This option may also be satisfied by literature courses in Arabic, Chinese, French, German, Greek, Hebrew, Italian, Japanese, Latin, Portuguese, Russian, Sanskrit, or Spanish. (Literature courses in English translation will not meet this requirement.)

   African Studies courses:

   a. United States Studies
   
   b. Foreign Studies

   a. United States Studies

   Purpose:
   a. To develop an appreciation and knowledge of a foreign culture and civilization.
   b. To provide a basis from which a student can analyze her or his own culture.
   c. To develop a critical understanding of the sources of values and traditions that constitute a foreign culture and civilization.
   d. To develop an understanding of the relationship between individual and societal behavior in a highly interdependent world system.
   e. To further develop writing skills.
   
   The following courses are designated Foreign Studies courses:

   a. United States Studies

   NOTE: If Western Civilization (History 151-152), Medieval Civilization (Medieval Studies 201-202), or Foundations of Western Thought (Philosophy 120-121) is taken to satisfy the non-United States History requirement under Divisional Distribution, the European concentration may not be elected here. This option may also be satisfied by literature courses in Arabic, Chinese, French, German, Greek, Hebrew, Italian, Japanese, Latin, Portuguese, Russian, Sanskrit, or Spanish. (Literature courses in English translation will not meet this requirement.)

   Africa

   African and African-American Studies 421
   
   Anthropology 314 Peoples and Cultures of Africa (Same as African-American Studies 314); 461 African Prehistory (Same as African-American Studies 461).
   
   Geography 379 Geography of Africa (Same as African-American Studies 379).
   
   History 571-572 African History.
   
   Political Science 452 Black African Politics (Same as African-American Studies 452).
   
   Religious Studies 373 African Religions (Same as African-American Studies 373 and Anthropology 373).

   Asia

   Art 385 Chinese Art; 386 Japanese Art; 486 Art of Indian Asia.
   
   Economics 424 Political Economy of World Development (when topic is Asian).
   
   History 362-363 History of East Asia; 365 History of Japan.
   
   Political Science 454 Government and Politics of China and Japan.
   
   Religious Studies 374 Philosophy and Religion in India (Same as Philosophy 374); 376 Buddhist Philosophy and Religion (Same as Philosophy 376); 379 Religion and Philosophy in China (Same as Philosophy 379); 383 Religion in Japan.
European
Anthropology 462 Early European Pre-history.
Classics 331 Archaeology of the Aegean Bronze Age and Early Greece; 334 Cities and Sanctuaries 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 325 Economic History of the North Atlantic Community.
Women 440 British Culture to 1660; 302 British Culture: 1660 to Present; 401 Medieval Literature.
French 420 French Cinema; 431 Highlights of French Civilization; 324 Women in French Culture (Same as Women's Studies 324); 432 Contemporary French Cinema.
Geography 371 Geography of Europe; 375 Geography of Russia and the Commonwealth of Independent States.
German 323 German Film; 363 Modern German Culture.
History 319 Modern Europe, 1750-1814; 320 Contemporary Europe, 1900-present; 432 Women in European History (Same as Women’s Studies 432).
Medieval Studies 403 Seminar in Medieval Studies.
Philosophy 320 Ancient Western Philosophy; 322 Medieval Philosophy; 324 Medieval Philosophy; 324 Seven-teenth- and Eighteenth-Century Philosophy; 326 Nineteenth- and Twentieth-Century Philosophy.
Political Science 361 Politics in Western Democracies; 459 Government and Politics of the Soviet Union; 489 Soviet Foreign Policy.
Russian 371-372 Background and Main Currents of Russian Culture.
Russian and East European Studies 410 Selected Topics in Russian and East European Studies.
Spanish 431 Spanish Civilization.
Latin American
Anthropology 313 Peoples and Cultures of Mesoamerica (Same as Latin American Studies 313); 319 Caribbean Societies and Cultures (same as African and African-American Studies 319 and Latin American Studies 319).
Economics 323 Economic History of World Development (when topic is Latin American).
Geography 372 Geography of Middle America (Same as Latin American Studies 372); 373 Geography of South America (Same as Latin American Studies 373).
History 360-361 History of Latin America (Same as Latin American Studies 360-361).
Latin American Studies 401 Cultural Plurality and Institutional Changes in Latin America.
Political Science 355 Latin American Government and Politics I (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).
Middle East
Anthropology 453 Rise of Complex Civilization.
History 369-370 History of the Middle East.
Religious Studies 311 Ancient Hebraic Religious Traditions; 332 Islam; 333 Islam in the Modern World; 381 Introduction to Judaism; 385 Contemporary Jewish Thinkers; 405 Modern Jewish Thought.
Critical Issues in Foreign Studies
Economics 323 Economic Development (Third World); 324 Comparative Economic Systems.
History 374 The West and the Third World Since 1870; 375 Revolutions in Historical Perspective.
Political Science 350 Political Change in Developing Areas.
Religious Studies 371 Eastern Religions and Western Thought.
Sociology 442 Comparative Patterns of Poverty and Development; 446 The Modern World System.
Women’s Studies 360 Women in Cross-Cultural Perspective.
c. Capstone Experience
Purposes:
a. To offer an intensive integrative experience which will substantially broaden the student’s comprehension of the major.
b. To increase significantly an understanding of the ways in which the ideas, methods, and achievements in a major area of study have affected modern society.
c. To examine a major field of study from a value-oriented perspective.
d. To enhance students’ mastery of prose communication within the professional context of their major.

The following courses are designated Capstone Courses:
NOTE: Consult with major department for additional approval courses. Course credits must be taken in the major area unless otherwise approved by the department. It is recommended that this option be satisfied during the senior year.
Biochemistry 420 Advanced Topics in Biochemistry.
Chemistry 405 Topics in the Development of Chemistry.
Classics 422 Seminar in Classical Studies.
Computer Science 411 Senior Thesis I; 412 Senior Thesis II.
French 440 Capstone Experience in French.
Geography 499 Seminar in Geography.
Geology 440 Field Geology.
History 492 Undergraduate History.
Human Services 430 Working within the System.
Mathematics 411 Mathematical Modeling;
400 History of Mathematics.
Microbiology 495 Senior Seminar.
Music History 460 Music Aesthetics.
Physics 401 Background of Physics; 402 Forefront of Physics.
Psychology 496 Senior Seminar: Great Ideas in Psychology.
Spanish 433 Comparative Colloquium in Spanish; 460 Capstone Tutorial in Spanish.
Urban Studies 460 Senior Seminar.
Zoology 499 Perspectives in Zoology.

AREAS OF CONCENTRATION

(1) Required Major
Requirements for specific majors vary by program and are discussed under each department. A major consists of at least 24-40 credit hours in courses numbered 200 or above as specified by the department or program. Up to 6 credit hours taken in the major may also be used to satisfy basic skills or distribution requirements where listed. In addition, students making A or B in English 118 may use a 200-level literature course in the English Department to satisfy both the second half of their Basic Skills English Composition requirement and part of their distribution if the course is listed there. A minimum grade of C must be earned in every course counted as part of a major. Students transferring from other institutions must complete at least 9 credit hours at UT Knoxville in each major awarded on this campus. Students may elect as many courses as desired in any department or program. In lieu of a major, students may develop an Individualized Program (described below). Majors available in the Basic Program for a B.A. or B.S. include: Anthropology, Art, Art History, Audiology, Biochemistry, Biology, Botany, Chemistry, Classics, Computer Science, Economics, English, French, Geography, Geology, German, History, Interdisciplinary Studies, Italian, Mathematics, Microbiology, Music, Philosophy, Physics, Political Science, Psychology, Religious Studies, Russian, Sociology, Spanish, Speech Communication, Statistics, and Zoology.

(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 transcript without regard to course overlap among majors or among the additional majors and Basic Skills and Distribution requirements. Students developing multiple majors must declare this intent at the time of application for graduation. Once a student has graduated, the establishment of additional majors becomes subject to University second degree requirements.

Students who satisfy the requirements of a degree in a college other than Liberal Arts may also major inside the College of Liberal Arts with the approval of the degree granting unit. These students need complete only the major requirements, not the Basic Skills or Distribution requirements for Liberal Arts degrees. The Liberal Arts major may also be listed on the student's transcript.

(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 major and among minors and Basic Skills and Distribution requirements. Students who satisfy the requirements of a degree in a college other than Liberal Arts may also minor inside the College of Liberal Arts with the approval of the degree granting unit. The minimum requirement for a minor is 15 credit hours in courses numbered 200 or above. Minors are available in most departments or programs in which majors are offered, and also in Portuguese and Cinema Studies. Minors may be developed in other colleges or schools of the University, but must be approved by the department head in which the minor is proposed and by the Associate Dean for Student Academic Affairs in Liberal Arts. At least 6 of the 15 credit hours required for a minor must be completed at The University of Tennessee, Knoxville.

Business Minor for Non-Business Students: Requirements include the following courses: Accounting 201-202, Economics 201, Statistics 201, and 12 hours of upper-division Business electives at UT Knoxville. No more
than 3 upper-division hours of Accounting, Economics, or Statistics may be used for the minor. Students are responsible for meeting all prerequisites for upper-division courses taken in a particular concentration.

(4) Supplementary Elective Courses

At least one-fourth of each student's curriculum in the Basic Program will be made up of courses selected according to the individual's interests to supplement and support the work being done in the major and Basic Skills and Distribution requirements. This dimension of the student's experience in the University represents that freedom within which total education may be rounded out and enriched. Elective courses will be chosen with care so that they will truly enhance the student's total program and help in the achievement of well thought-out educational objectives.

Some of the choices which the student might make in selecting the elective courses are:
(1) Additional courses in the major field;
(2) A related minor;
(3) An area in the arts;
(4) An off-campus semester.

Only the students' imagination and initiative and the willingness to conceive and develop a meaningful academic program limit the choices of supplementary elective courses.

INDIVIDUALIZED PROGRAM

The Basic Program described above will meet the educational needs of most students enrolling in the college. Some, however, come with particular strengths in their preparation or with special interests which do not coincide with the departmental or interdepartmental majors specified in the Basic Program. For these students the Individualized Program has been established as a means of attaining a closer correlation between student needs and academic programs. Students in the Individualized Program will satisfy all the Basic Skills and Distribution requirements, just as do those in the Basic Program. The area of individualization takes place in the area of concentration.

Although the quantitative aspect of the area of concentration is the same as for the major in the Basic Program (i.e., a minimum of 24 hours in courses numbered above 200), there is no restriction in principle on the choice of courses of which it is composed. The student may design a program in consultation with an advisor and submit it for consideration to the Committee on the Individualized Program. The proposed courses of study must have some clear central purpose, usually implemented through intensive work in two or three departments; an uncoordinated scattering of courses will not be approved. For further information contact the Liberal Arts Advising Center.

COLLEGE SCHOLARS PROGRAM

A limited number of freshmen, entering transfer students with fewer than 42 credit hours, and resident students with fewer than 62 credit hours are invited each year to enter this distinguished honors curriculum. Selection is based on previous academic record, 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 affords the highest degree of freedom to the student in developing a meaningful curriculum. Each program is worked out individually with a special 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 objectives, whether 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 of 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 may 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 or Science degree for students preparing for the study of dentistry. Both programs are based upon the curriculum outlined 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 124 or more credit hours while enrolled in the college, including a major of 24 or more hours in addition to the courses 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 30 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 enrolling in the College of Dentistry.

Math placement depends on high school courses and grades, ACT scores, and BA/BS requirements. A math placement handbook is available in the Liberal Arts Advising Center, 220 Ayres Hall. Mathematics 130 or any calculus course are prerequisites to Physics. All students must complete the Math Basic Skills requirements as outlined in the Liberal Arts Curriculum.

This requirement assumes a student has had enough language background in high school to begin an intermediate language sequence at UT Knoxville. BA students must take a two-semester course package in either literature or a philosophic perspective for Humanities, Part I and Part II. Students must complete one course from the remaining two lists. BS students must complete a minimum of 6 credits from the four lists under the Humanities requirement; not more than 3 credits may be taken in the Arts.

BS students must complete a minimum of 6 credits from one of the three areas and 3 credits from one of the remaining two areas. BA students must complete a minimum of 6 credits in two of the three areas. (Upper Level Distribution).

Depending upon course selection, a student may require less than the listed elective hours to reach the minimum total of 93 hours. Recommended courses in biology and zoology are genetics, cell biology, and comparative vertebrate anatomy.

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. Desired qualifications include a minimum of 3.4 GPA and a Graduate Management Admission Test Score of 600 or higher.

Students in this program take 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 will fulfill all general education requirements for the B.A. degree, both upper and lower division, along with a minor offered by one of the Liberal Arts departments. They may use one Economics course only to fulfill distributional requirements, and they are required to take a year of calculus as the only pre-requisite to the M.B.A.

Students interested in the Dual B.A./M.B.A. program are counseled initially in the Liberal Arts Advising Center regarding admission standards and Liberal Arts requirements. At the end of their second year, they will have a conference with the Associate Dean for Graduate Business Programs and be advised of their prospects for formal admission. If the student is a likely candidate, he/she will be advised 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, are based upon the program outlined below. In the three-year program, the student must complete at least 93 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 upper division work of 51 hours. Although not specifically required 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.

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 two-year program prepares students to be admitted to the College of Pharmacy upon completion of 60 hours of a prescribed course of study in the College of Liberal Arts. Further information may be obtained from the Health Professions Office, 220 Ayres Hall.

The three-year program leading to a B.S. degree and the four-year program leading to
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, if eligible, 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 an adequate 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 stresses the interrelatedness of biological and physical systems. The two tracks beyond the core stress the two major emphases of the ecological sciences—the biological and the chemical-physical. The student choosing to emphasize the biological track should be prepared to teach courses in biological science through the middle school years. The student choosing to emphasize the chemical-physical track should be prepared to teach general and earth science through the middle school years.

   Prerequisite courses: NB. One mathematics and one science sequence or two science sequences (14-16 hours) may be used to satisfy general education requirements.

   1. Mathematics 121-115 (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 117-118 (4,4)

   Core courses: (14-16 hours)
   1. Biology 220: General Genetics (4)
   2. Biology 230: General Ecology (4)
   3. Geology 101-102 (4,4) or Geography 131-132 (4,4) or Physics 141-142 (3,3)

   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 305: Socio-Economic Impact of Plants (3); Botany 310: Plants: Evolutionary Survey I (3); Botany 320: Plants: Evolutionary Survey II (3); Botany 330: Field Botany (4); Botany 348: Introduction to Oceanography (3); Botany 431: Plant Ecology (3); Botany 451: Plant Tissue Culture (3); Ecology 370: Environment and Conservation (2); Forestry, Wildlife and Fisheries: Dendrology, Ecology, Silvics (3); Geography 435: Biogeography (3); Geology 320: Paleobiology (3); Geology 420: Paleobotany and Palynology (3); Microbiology 310-19: Introduction to Microbiology and Lab (3,1); Zoology 380: General Entomology (3); Zoology 450-459: Comparative Animal Behavior and Lab (3,3); Zoology 470: Aquatic Ecology (3); Zoology 473: Herpetology (3); 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 (3,3,2); Ecology 370: Environment and Conservation (2); Geography 334: Meteorology (3); Geography 433: Land Surface System (3); Geography 434: Climatology (3); Geography 456: Water Resources (3); Geology 203: Geology of National Parks (3); Geology 325: Geological History of Land Organisms (3); Geology 450: Process Geomorphology (3); Geology 456: Basic Environmental Geology (3); Geology 485: Principles of Geohydrology (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 both biological science (anthropology, biochemistry, biology, botany, microbiology, psychology, zoology) and in physical science (chemistry, geography, geology, physics) in addition to the 19 hours in the core curriculum is designed to fulfill the state competencies for General Science and Physical Science and II Biology.

   Prerequisite courses: NB. One mathematics and one science sequence or two science sequences (14-16 hours) may be used to satisfy general education requirements.

   1. Mathematics 121-115 (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 117-118 (4,4)
   4. Geology 101-102 (4,4) or Geography 131-132 (4,4) or Physics 141-142 (3,3)

   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 305: Socio-Economic Impact of Plants (3); Botany 310: Plants: Evolutionary Survey I (3); Botany 320: Plants: Evolutionary Survey II (3); Botany 330: Field Botany (4); Botany 348: Introduction to Oceanography (3); Botany 431: Plant Ecology (3); Botany 451: Plant Tissue Culture (3); Ecology 370: Environment and Conservation (2); Forestry, Wildlife and Fisheries: Dendrology, Ecology, Silvics (3); Geography 435: Biogeography (3); Geology 320: Paleobiology (3); Geology 420: Paleobotany and Palynology (3); Microbiology 310-19: Introduction to Microbiology and Lab (3,1); Zoology 380: General Entomology (3); Zoology 450-459: Comparative Animal Behavior and Lab (3,3); Zoology 470: Aquatic Ecology (3); Zoology 473: Herpetology (3); 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 (3,3,2); Ecology 370: Environment and Conservation (2); Geography 334: Meteorology (3); Geography 433: Land Surface System (3); Geography 434: Climatology (3); Geography 456: Water Resources (3); Geology 203: Geology of National Parks (3); Geology 325: Geological History of Land Organisms (3); Geology 450: Process Geomorphology (3); Geology 456: Basic Environmental Geology (3); Geology 485: Principles of Geohydrology (3)

   Total: 26-28 hours

At least twelve hours must be taken from the courses listed below, but no more than nine hours may be taken from either part b (Biological Sciences) or part c (Physical Sciences).

b. Biological Sciences
   +Anthropology 210: Principles of Biological Anthropology (3); +Anthropology 464: Principles of Zoolarcheology (3);
   +Anthropology 480: Human Osteology (3); +Anthropology 490: Principles of Primate Evolution (3);
   +Anthropology 495: Human Paleontology (3); +Anthropology 496: Biology of Human Variability (3); Biochemistry 310: Introduction to Biochemistry (3); Of the following three courses you may choose only one: Botany 365: Socio-Economic Impact of Plants (3); Botany 366: Genetics and Society (3); Botany 369: Biology of Human Affairs (3); Botany 370: Plants: Evolutionary Survey I (3), Botany 380: Plants: Evolutionary Survey II (3), Botany 391: Introductory Plant Physiology (3); Botany 390: Field Botany (4); Geology 201: Fossils and the Meaning of Evolution (3); Geology 320: Paleobiology (3); Geology 420: Paleoecology (4); Microbiology 201: General Microbiology (3); Microbiology 310-319: Introduction to Microbiology and Lab (3,1); Psychology 210: Biological Basis of Behavior (3); Psychology 370: Ethology and Sociobiology (3); +Psychology 410: Sensory Processes and Perception (3);
   +Psychology 461: Physiological Psychology (3); Zoology 230: Human Physiology (3); Zoology 240: Human Anatomy (3); Zoology 330-331: Animal Development and Embryology and Lab (3,2); Zoology 350: Comparative Vertebrate Biology (4); Zoology 356: Comparative Invertebrate Biology (4); Zoology 360: General Entomology (3); Zoology 410-419: Paleontology (3); Zoology 450-459: Comparative Animal Behavior and Lab (3,3); Zoology 473: Herpetology (3); Zoology 474: Ichthyology (3); Zoology 476: Mammalogy (3).

   +Course has prerequisite other than courses prerequisite to this major. See catalog for details.

c. Physical Sciences
   Chemistry 350-360-369: Organic Chemistry and Lab (3,3,2); Geography 334: Meteorology (3); Geography 433: Land Surface System (3); Geography 434: Climatology (3); Geography 435: Biogeography (3); Geography 436: Water Resources (3);
   +Geography 445: Geography of Resources (3); Geology 203: Geology of Natural Parks (3); Geology 310: Mineralogy (3); Geology 350: igneous and Metamorphic Petrology
Pre-Teaching Humanities Options: Bachelor of Arts/College of Liberal Arts

(3) Geology 340: Stratigraphy and Sedimentation (3); Geology 346: Introduction to Oceanography (3); Geology 370: Structural Geology (4); Geology 380: Resource Crises-Minerals and Energy (3); Physics 131-132: Fundamentals of Physics (4,4) or Physics 141-142: Nature of the Physical World (3,3) or Physics 221-222: Elements of Physics (4,4).

+Course has a prerequisite other than courses prerequisite to this 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 130: Precalculus I (3); Mathematics 141-142: Calculus I and II (4,4); Mathematics 221: Discrete Mathematics (3); Mathematics 241: Calculus III (3); Mathematics 251: Matrix Algebra (3); Mathematics 323: 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-8 and is intended to provide the student pursuing this option with the minimal competence to teach 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.

Prerequisite sequence: 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: Microcomputing (3); Mathematics 460: Geometry (3).

Science (20-24 hours) NB: One of the science sequences listed below may be used to satisfy general education requirements.

Part I. (14-16 hours) A sequence from two of the following three scientific areas (A, B, or C):

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

B. Chemistry: Either Chemistry 100-110: Principles of Chemistry, Introduction to

1Biology 110-120 (4,4) or Zoology 117-118 (4,4) or Botany 110-120 (4,4) or two years of high school biology are prerequisite to both Biology 210-220-230 and Zoology 230-240.

Organic and Biochemistry (4,4) or Chemistry 120-130: General Chemistry I and II (4,4).

C. Physical Sciences: Either Geology 101-102: General Geology I and II (4,4); or Geography 131-132: Geography of the Natural Environment I and II (4,4) or Physics 141-142: Nature of the Physical World I and II (3,3).

Part II. (8-9 hours) Either another sequence from Part I above or two of the following courses:

Astronomy 161: Introductory Astronomy with Lab (4); Botany 305: Socio-Economic Impact of Plants (3); Botany 309: Biology of Human Affairs (3); Geography 334: Meteorology (3); Geology 201: Fossils and the Meaning of Evolution (3); Geology 203: Geology of National Parks (3); Geology 380: Resource Crises: Minerals and Energy (3).

Total: 32-36 hours

PRE-TEACHING HUMANITIES OPTIONS: BACHELOR OF ARTS

(5) Arts
This concentration should develop the knowledge and understanding of the role of the arts in society and should include experiences with the visual arts, music, drama, and creative dance. 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 121-115, 121-122, 121-Statistics, 201, 122-115, 141, 142, or 151-152. If the Math 201-202 sequence is chosen, it will satisfy the distribution requirements under Natural Science, Part II.

Required courses:

Art 172: Western Art I (3) or Art 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 280: Introduction to Oral Interpretation (3); Speech Communication 380: Oral Interpretation of Prose Literature (3); Speech Communication 385: Oral Interpretation of Poetry (3); Speech Communication 480: Ensemble Interpretation (3); Theatre 220: Acting (3); Theatre 221: Acting (3); Theatre 245: Basic Costuming (3); Theatre 250: Introduction to Scene Technology (3); Theatre 260: Fundamentals of Light and Sound (3); Theatre 320: Advanced Acting (3); Theatre 341: Introduction to Costume Design (3); Theatre 355: Introduction to Scenic Design (3); Theatre 362: Introduction 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 departments: Art 173: Western Art II (3); Art 232: History of Photography (3); Art 371: Early Christian and Byzantine Art, to 1350 (3); Art 372: Northern European Painting, 1350-1600 (3); Art 374: Art of Northern Europe, 1650-1757 (3); Art 375: History of Modern Sculpture in Europe and America (3); Art 381: Medieval Art of the West, 800-1400 (3); Art 382: The Art of Italy, 1250-1450 (3); Art 383: The Art of Italy, 1457-1573 (3); Art 384: Art of Southern Europe, 1575-1700 (3); Art 385: Chinese Art (3); Art 386: Japanese Art (3); Art 471: History of North American Art (3); Art 472: History of 20th Century Art (3); Art 473: 19th Century American Painting (3); Art 475: History of 19th Century Painting in Europe and America (3); Art 496: Art of Indian Art (3); English 252: Introduction to Drama (3); English 306: Introduction to Shakespeare (3); English 334: Film and American Culture (3); English 404: Shakespeare I: Early Plays (3); English 405: Shakespeare II: Later Plays (3); English 406: Renaissance Drama (3); English 412: British Drama from 1660-1800 (3); English 453: Continental Drama (3); English 491: Foreign Study (1-15); French 430: Theatrical French (2-3); German 373: German Film (3); German 422: German Drama (3); Music: all courses in Music History and Music Theory; Spanish 450: 20th Century Hispanic Theatre (3); Theatre 210-211: Survey of World Drama (3,3); Theatre 310-311: History of the Theatre (3,3); Theatre 312-313: History of the American Theatre (3); Theatre 410: Literary Theory and Criticism (3); 6 additional hours at the 300 level or higher from any of the courses listed above.

+Course requires intermediate level in the language.

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.

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 121-115, 121-122, 121-Statistics, 201, 122-115, 141, 142, or 151-152. If the Math 201-202 sequence is chosen, it will satisfy the distribution requirements under Natural Science, Part II.


12 hours in courses 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 History; Anthropology 120: Prehistoric Archaeology (3) or Anthropology 130: Cultural Anthropology (3); or Sociology 100: General Sociology (3).

Total: 24 hours

Core courses: Geography 320: Cultural Geography: Core Concepts (3); History
6 hours in literature courses in Departments of English, Classics, or Foreign Language at 300 level or above

Total: 33 hours
(at least 24 at 300 level or above)

(7.) Ideas and Values
This concentration aims at developing an understanding of the variety of ideas and values evolved 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 of the Liberal Arts Distribution requirements: Math 121-115, 121-122, 121-Statistics 201, 122-115, 141-142, or 151-152. If the Math 201-202 sequence is chosen, it will satisfy the distribution requirements under Natural Science, Part II.

Required courses: (15 hours)
Philosophy 110-111: The Human Condition (3,3); Religious Studies 101: World Religions in History (3); Religious Studies 211: Ways of Understanding Religion (3); one of the following: Philosophy 380: The Concept of Woman (3); Philosophy 382: Philosophy of 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 370: Philosophy of Religion (3); Philosophy 390: Philosophical Foundations of Democracy (3); Philosophy 393: Marxism (3); Philosophy 395: Existentialism (3); Philosophy 411: Modern Religious Philosophies (3); Philosophy 425: American Philosophy (3); Philosophy 479: Studies in Recent Continental Philosophy (3); Religious Studies 305: Contemporary Religious Thought (3); Religious Studies 310: Ancient Hebraic Religious Traditions (3); Religious Studies 315: Reformation Europe (3); Religious Studies 321: New Testament Origins (3); Religious Studies 322: Christian Thought (3); Religious Studies 326: Images of Jesus (3); Religious Studies 331: Judaism (3); Religious Studies 342: Religious Ethics (3); Religious Studies 351: Introduction to U.S. Religious History (3); Religious Studies 352: African-American Religion in the U.S. (3); Religious Studies 355: Religion and Culture in the U.S. (3); Religious Studies 425: Seminar in WesternReligions (3)

At least 6 hours in non-Western philosophy and religion to be chosen from the following or from an option approved through petition: Religious Studies 302: Religion of Primitive People (3); Religious Studies 332: Islam (3); Religious Studies 373: African Religions (3); Religious Studies 374: Philosophy and Religion in India (3); Religious Studies 376: Buddhist Philosophy and Religion (3); Religious Studies 379: Religion and Philosophy; 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
(at least 21 at 300 level or above)

PRE-TEACHING SOCIAL SCIENCE OPTIONS: BACHELOR OF ARTS

(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 of the Liberal Arts Distribution requirements: Math 121-115, 121-122, 121-Statistics 201, 122-115, 141-142, or 151-152. If the Math 201-202 sequence is chosen, it will satisfy the distribution requirements under Natural Science, Part II.

Required courses: (6 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 313: History of the American Theatre (3); Geography 365: Geography of Appalachia (3); History 449: Tennessee 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: 19th Century American Painting (3); Economics 331: Government and Business (3); Economics 335: Economic History of the North Atlantic Community (3); English 332: Women in American Literature (3); English 334: Film and American Culture (3); Geography 361: Regional Geography of the US and Canada (3); Geography 383: Geography of the American South (3); Geography 386: 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 454: Cities and Urbanization in American History (3); Music 350: History of Jazz (3); Music 440: Music of North America (3); Philosophy 425: American Philosophy (3); Political Science 315: Tennessee Government and Politics (3); Political Science 330: Law in American Society (3); Political Science 331: Judicial Process (3); Political Science 374: 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 351: Introduction to U.S. Religious History (3); Religious Studies 352: African-American Religion in the U.S. (3); Religious Studies 353: Topics in African-American Religion (3); Sociology 405: Sociology of Sport (3); Sociology 415: Sociology of Aging (3); Sociology 455: Society and Law (3); all 300 level courses except Sociology 321, 331, 336, 344, 351, and 370; Theatre 312-313: History of the American Theatre (3,3)

Total: 30 hours

(9.) 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. 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 121-115, 121-122, 121-Statistics 201, 122-115, 141-142, or 151-152. If the Math 201-202 sequence is chosen, it will satisfy the distribution requirements under Natural Science, Part II.

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 343: Race and Ethnicity (3); Sociology 344: Power and Society (3)

3 hours Sociology 446: 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, Religious Studies, 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)

(10.) Social Studies
This concentration should develop perceptions of the broad field of social science and broaden the historical and geographic knowledge base. 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 121-115, 121-122, 121-Statistics 201, 122-115, 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) or History 161-162: History of World Civilization (3,3); Geography 101-102 (3); Political Science 101: United States Government and Politics (3) or Political Science 102: Government and Politics (3); History 251-252: History of the United States (3,3); Anthropology 120: Prehistoric Archaeology (3) or Anthropology 130: Cultural Anthropology (3); or Sociology 100: General Sociology (3)

Total: 24 hours
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 93 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 (two semesters) 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.

<table>
<thead>
<tr>
<th>Hours Credit</th>
<th>Freshman</th>
</tr>
</thead>
<tbody>
<tr>
<td>6</td>
<td>English 101-102</td>
</tr>
<tr>
<td>6</td>
<td>Chemistry 120-130</td>
</tr>
<tr>
<td>6</td>
<td>Biology 110-120 or Zoology 117-127</td>
</tr>
<tr>
<td>6</td>
<td>Basic Skills (B) Foreign Language (Intermediate Level Sequence)</td>
</tr>
<tr>
<td>6</td>
<td>Mathematics</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Hours Credit</th>
<th>Sophomore</th>
</tr>
</thead>
<tbody>
<tr>
<td>8</td>
<td>Biology 210, 220</td>
</tr>
<tr>
<td>8</td>
<td>Chemistry 350, 360, 369</td>
</tr>
<tr>
<td>8</td>
<td>Physics 221-232</td>
</tr>
<tr>
<td>6</td>
<td>Divisional Distribution (A) Non U.S. History</td>
</tr>
<tr>
<td>3</td>
<td>Divisional Distribution (C) Social Sciences</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Hours Credit</th>
<th>Junior</th>
</tr>
</thead>
<tbody>
<tr>
<td>4</td>
<td>Biochemistry 410</td>
</tr>
</tbody>
</table>

**Total:** 124 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

15 at the 300 level or above

<table>
<thead>
<tr>
<th>Subject</th>
<th>Credits</th>
<th>Level</th>
</tr>
</thead>
<tbody>
<tr>
<td>English</td>
<td></td>
<td></td>
</tr>
<tr>
<td>History</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Math</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Science</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**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 to a final year of study at the University of Tennessee Medical Center, Knoxville (UTMCK). After the course of study is completed, UTMCK awards the student a Certificate 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.

<table>
<thead>
<tr>
<th>Hours Credit</th>
<th>Freshman</th>
</tr>
</thead>
<tbody>
<tr>
<td>6</td>
<td>English 101, 102</td>
</tr>
<tr>
<td>6</td>
<td>Biology 110, 120 or Zoology 117, 118</td>
</tr>
<tr>
<td>6</td>
<td>Chemistry 120-130</td>
</tr>
<tr>
<td>6</td>
<td>Basic Skills (B) Foreign Language (Intermediate Level Sequence)</td>
</tr>
<tr>
<td>6</td>
<td>Mathematics</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Hours Credit</th>
<th>Sophomore</th>
</tr>
</thead>
<tbody>
<tr>
<td>5</td>
<td>Biology 310, 319</td>
</tr>
<tr>
<td>5</td>
<td>Microbiology 420, 429</td>
</tr>
<tr>
<td>5</td>
<td>Chemistry 310, 319 and Biochemistry 310</td>
</tr>
<tr>
<td>3</td>
<td>Microbiology 420</td>
</tr>
</tbody>
</table>

**Total:** 124 hours

**STUDENTS WHO REGISTER FOR A MINIMUM OF 12 CREDITS WILL BE CHARGED A MINIMUM OF 12 CREDITS.**

**OR EQUIVALENT HONORS COURSES.**

Students who have had considerable background in biology in high school (e.g., two years of biology or an unusually good one-year course) and have completed general chemistry may be eligible to go directly into Biology 210 or 220. Consult the coordinator of the biology program for more information. Such students must include at least eight hours in biological science in their electives to satisfy the requirement for any course in the medical technology course of study.

**PREPARATION FOR OTHER PROFESSIONS**

**LIBRARY AND INFORMATION 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 graduate study in the profession of library and information science. For a list of recommended courses, contact the Graduate School of Library and Information Science.

**PLANNING**

Students who wish to consider a career in city and regional planning or a related field will find a brief description of the program of the Graduate School of Planning, Architecture, and Community Studies on page 103. Students interested in planning must be recommended for certification by the College of Education. The College of Education is approved by the National Council for Accreditation of Teaching Education (NCATE); recommendations for certification by the college, therefore, in effect certify the student in 30 states.

For additional information contact Teacher Certification Office, Room 212 Claxon Education Building.

**COURSE LOAD**

The average course load in the college for any semester is 15-16 credit hours. The University defines full-time undergraduate students as those who register for a minimum of 12 hours.
OFF-CAMPUS STUDY

Recognizing that learning is not restricted to formal classroom situations, the college provides for students to earn credit toward graduation for approved off-campus study. Such study may be undertaken only with prior approval of the faculty member and the department concerned. It may include certain kinds of work experiences, community involvements, working in political campaigns, etc. 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.

INDEPENDENT STUDY

Certain educational goals may best be met through independent study done by an individual under the direction of a faculty member. Students who wish to do such independent work should obtain the approval of the faculty member 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

Several 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 in such programs may be obtained through the Overseas Study Information Service located in the University's Division of International Education. A third opportunity is through individualized programs under the foreign study number 491. The nature of this work as well as credit for it should be negotiated by students prior to departure with the appropriate liberal arts departments. Credit will be awarded only after completion of all agreed upon requirements, and may vary from 1-15 hours in any one department. Up to 21 hours of such credit, exclusive of that earned in group programs offered by departments, could apply toward a degree in the college. Departments may in any of the above forms, however, limit the hours of credit which can be applied toward a given major.

ANTHROPOLOGY

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

Associate Professors:
F.V. Harrison, Ph.D. Stanford; I. Harrison, Ph.D. Syracuse; B.J. Howell, Ph.D. Kentucky; M.H. Logan, Ph.D. Pennsylvania State; J.F. Simek (Head), Ph.D. SUNY-Binghamton; G.F. Schroedl, Ph.D. Washington State.

Assistant Professors:

Research Associate Professor:

Research Assistant Professors:
S. Frankenbg, Ph.D. Northwestern; D. Morey, Ph.D. Tennessee; T. Tardif, Ph.D. Michigan State.

PROGRESSION STANDARDS:

Progression into the Anthropology major is based on performance in the three prerequisite courses: 110, 120 and 130. Students must maintain a grade point average of at least 3.0 for the three introductory courses, with none of the three grades below a C. Upon satisfactory completion of the prerequisites, the student may apply for progression into the Anthropology major by: (1) completing a formal application for progression in the Anthropology Department and (2) including with that application an academic history demonstrating satisfactory completion of the progression requirements. The Undergraduate Committee of the Anthropology Department will meet regularly to determine the status of these applications. Upon progression to the major, a department advisor will be assigned in consultation with the student.

The anthropology major consists of 450 and 27 additional hours of upper division course work in Anthropology. This course work shall be distributed as follows:

(1) one course from categories (a), (b), (c), and (d); and two courses from category (e):

(a) archaeological method and theory: 361, 362, 440, 464
(b) archaeological area: 360, 461, 462, 463
(c) cultural area: 310, 311, 312, 313, 314, 315, 319
(d) cultural method and theory: 410, 411, 412, 413, 414, 431
(e) biological anthropology: 480, 490, 494, 495, 496

(2) Remaining hours may be selected from any upper division Anthropology courses.

Students with senior standing are encouraged to substitute appropriate 500 level courses (with permission of the instructor of the course and approval of the Department Head) for any portion of (1) or (2) above.

Continuation in the anthropology major requires maintenance of a 2.5 GPA or better in all anthropology courses. Students failing to meet this standard will be notified in writing that they are on probation and their records will be reviewed. Those who continue in probationary
status for two consecutive semesters will be dropped from the major.

Anthropology 110, 120, 130 are prerequisite to a minor in anthropology, which consists of 15 hours of upper division Anthropology courses, chosen in consultation with an Anthropology advisor.

**ART**


Assistant Professors: T. W. Hiles, Ph.D. Pennsylvania State.

**B. F. A. in Studio Art**

The B.F.A. is Studio Art is a professionally oriented degree especially intended for those students planning careers or graduate study in the visual arts. All students seeking studio degrees (BA Studio, BFA Studio and Art Education, BFA Graphic Design, Illustration) must present and pass the appropriate Portfolio Review for their area of study in order to be admitted into advanced courses. Contact specific program area faculty for review schedules and details. It should not be assumed that a high grade point average in the major, in itself, assures passing Portfolio Review. The Portfolio Review is recommended in the Sophomore year and is intended to provide students with an overview assessment of their potential for success in the intended area of study early enough to allow a student to make a program change should that be advisable. Students who do not pass Portfolio Review are provided with options including redosing a portfolio for resubmission during the next review cycle. All studio courses require 4 hours per week for on-credit hours. Studio Electives may take more than 8 semesters. Students are urged to seek departmental advisement each semester to ensure proper scheduling.

Transfer students are advised that a minimum of 21 hours in studio courses, and 6 upper division hours in art history, must be earned at UT Knoxville. Transfers who expect to enroll in 300 (junior level) or 400 (senior level) courses must present a portfolio of 10-15 works, the majority of which must be in their major area of concentration.

No grade below "C" in art courses may be applied to the B.F.A. major. A minimum of 40 credit hours, 300 level or above, must be satisfied prior to graduation.

Students may be accepted into advanced media concentrations in Ceramics, Drawing, Painting, Printmaking, Sculpture, Watercolor, and approved Inter-Area combinations, after passing the appropriate portfolio course.

### Basic Requirements

<table>
<thead>
<tr>
<th>Core</th>
<th>Hours Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Art History 171, 172, 173</td>
<td>9</td>
</tr>
<tr>
<td>Additional hours</td>
<td>9</td>
</tr>
<tr>
<td>Studio 201</td>
<td>4</td>
</tr>
<tr>
<td>Studio 265</td>
<td>3</td>
</tr>
<tr>
<td>Studio 211 Drawing I, 213 Painting I (or 215 Watercolor I)</td>
<td>12</td>
</tr>
<tr>
<td>Sculpture (241 or 243 or 244 or 245 or 246)</td>
<td>9</td>
</tr>
<tr>
<td>Printmaking (161 or 263 or 265 or 264)</td>
<td>9</td>
</tr>
<tr>
<td>Total: 46</td>
<td></td>
</tr>
</tbody>
</table>

### Concentration - Ceramics; Drawing; Painting; Printmaking; Sculpture; Watercolor; or Inter-Area (approved combinations of studio media).

<table>
<thead>
<tr>
<th>Studio Electives</th>
<th>Hours Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Studio Electives</td>
<td>32</td>
</tr>
<tr>
<td>Total: 15 hours</td>
<td></td>
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</tbody>
</table>

### General Curriculum

| English Composition | 6 |
| Non-U.S. History/Social Science | 6 |
| Natural Science/Mathematics | 6-8 |
| Liberal Arts Non-Art Electives | 14-16 |
| Total: 34 hours |

### Concentration Electives

<table>
<thead>
<tr>
<th>Approved Concentration Electives</th>
<th>Hours Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Max. credit hours in parenthesis): Ceramics: Art 212 (6), Art 231 (3), Art 242 (3), Art 262 (3), Art 341 (3), Art 342 (3), Art 420 (4), Art 429 (6)</td>
<td>9</td>
</tr>
<tr>
<td>Drawing: Art 213 or Art 215 not taken as part of core requirement (3), Art 214 (3), Art 216 (3), Art 219/419 (6), Art 231 (3), Art 262 (3), Art 263 (3), Painting: Art 212 (3), Art 215 not taken as part of core requirement (3), Art 216 (3), Art 219 - Color Drawing (3), Art 219 - Figure Painting (3), Art 231 (3), Printmaking: Art 212 (6), Art 231 (3), Art 311 (4), Art 419 - Anatomy/Color/Rendering (6), Art 469 (3), Sculpture: TAE 165 (3), TAE 167 (3), Art 203 (3), Art 204 (3), Art 212 (6), Art 219 - Collage (3), Art 221 (3), Art 231 (3), Art 449 (6), Watercolor: Art 212 (6), Art 213 not taken as part of core requirement (3), Art 214 (3), Art 219 - Color Drawing (3), Art 231 (3)</td>
<td></td>
</tr>
<tr>
<td>Total: 127 hours</td>
<td></td>
</tr>
</tbody>
</table>

### B.F.A. in Studio Art with an Additional Major in Art Education

Students who wish to obtain licensure to teach art in the schools should pursue the B.F.A. degree in studio with an additional major in Art Education. For details, see Art Education listings in the College of Education section of this catalog.

### B.F.A. in Graphic Design/Illustration

The Graphic Design/Illustration major is specifically designed to provide the basic visual education for those persons who wish to pursue careers in the commercial application of art in fields such as advertising, art direction, packaging design, publications, television, etc.

Transfer students are advised that a minimum of 21 hours in studio courses, and 6 upper division hours in art history must be earned at UT Knoxville. Transfers who expect to enroll in 300 (junior level) or 400 (senior level) courses must present a portfolio of 10-15 works, the majority of which must be in graphic design.

No grade below "C" in art courses may be applied to the B.F.A. major. A minimum of 40 credit hours, 300 level or above, must be earned prior to graduation.

A minimum of 127 credit hours is required for graduation. Two options are available: Graphic Design or Illustration. Students are advised that courses in Graphic Design/Illustration must be taken in sequence, and that successful completion of Art 350 (Portfolio Review, S/NC) is prerequisite to all upper division courses.

### GRAPHIC DESIGN CONCENTRATION

<table>
<thead>
<tr>
<th>Core</th>
<th>Hours Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Art 171, 172, 173</td>
<td>9</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 295, 211, 213 (or 215)</td>
<td>9</td>
</tr>
<tr>
<td>Total: 28</td>
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</tr>
</tbody>
</table>

### Design and Professional Electives

<table>
<thead>
<tr>
<th>Core</th>
<th>Hours Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Art 456</td>
<td>12</td>
</tr>
<tr>
<td>Total: 45</td>
<td></td>
</tr>
</tbody>
</table>

### ILLUSTRATION CONCENTRATION

<table>
<thead>
<tr>
<th>Core</th>
<th>Hours Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Art 171, 172, 173</td>
<td>9</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 295, 211, 213 (or 215)</td>
<td>9</td>
</tr>
<tr>
<td>Total: 28</td>
<td></td>
</tr>
</tbody>
</table>

### Illustration Concentration

<table>
<thead>
<tr>
<th>Core</th>
<th>Hours Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Art 350 (S/NC)</td>
<td>0</td>
</tr>
<tr>
<td>Art 212, 9 hours of drawing electives</td>
<td>12</td>
</tr>
<tr>
<td>Total: 12</td>
<td></td>
</tr>
</tbody>
</table>

### Total: 127 hours
Art 231 ........................................................................ 3
Art 151 ........................................................................... 2
Art 251, 252, 351/353/356, 354/355, 454, 454, 454 in
sequence ...................................................................... 27
Total: 44

Studio Electives
A minimum of 12 hours from one of the following
areas, 9 hours from a second area (A) Fiber-Fabric, (B)
Painting, (C) Printmaking, (D) Sculpture, (E) Watercolor. 21

General Curriculum
English Composition ................................................. 6
Non U.S. History/Social Science............................... 6
Natural Science/Mathematics................................6-8
Non-Art Electives ...............................................................

Total: 34
Total: 127 hours

In addition to the general B.A. requirements (found in the Undergraduate Catalog), the following are required for B.A. majors in the Art Department:

B.A. Majors in Art History
Prerequisite: Art 172, 173, 183 ...................................... 9
Major:
Art History courses numbered 200 and above
(May include Greek and Roman Art and
Archaeology, Department of Classics) ................. 21
Studio courses numbered 200 and above ............. 6
Art 461 ............................................................... 1-3
Total: 39 hours

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
Prerequisite: Art 101, 295, 103 .................................... 7
Art 171 and 6 additional hours of Art History .......... 9
Major:
Studio courses numbered 200 and above, including
a minimum of 15 hours in 300-400 level courses ........................................ 24
Total: 40 hours

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

B.A. Minor in Art History
Prerequisite: Art 172, 173 ............................................. 6
Minor:
Art History courses numbered 200 and above ....... 15
Total: 21 hours

B.A. Minor in Studio
Prerequisites: Art 101, 103, 295 ................................. 7
Art 171, 172, 173 Art History (Any two) ................. 6

1Both courses must be taken concurrently.

PI BETA PHI ARROWMONT SCHOOL OF ARTS AND CRAFTS

Director: S.J. Blain, M.F.A. Wisconsin.

Arrowmont, located 40 miles from the UT Knoxville campus, is a visual arts complex which functions as a regional and national cultural center. In 1954, Pi Beta Phi Fraternity established an affiliation with The University of Tennessee, and with the Department of Art in 1978. The program currently includes spring and summer one and two week media workshops, special week conferences, and community classes. Media offerings include: clay, fiber, fabric, metal, wood, stained glass, leather, papermaking, drawing, painting, graphics and photography. Students may receive audit, undergraduate or graduate credit for spring and summer classes through The University of Tennessee, Department of Art. Facilities include well-equipped studios, on campus book and supply store, a large auditorium, art library, and resident accommodations. The Arrowmont Gallery presents changing juried, invitational, theme or media oriented exhibitions. The Gallery and Library are open to the public Monday-Saturday, 8:30 a.m.-5:30 p.m. Arrowmont receives financial support from chapters of the Pi Beta Phi Fraternity, alumnae clubs, and individual members.

Courses are offered periodically at the Pi Beta Phi Arrowmont School of Arts and Crafts, Gatlinburg, Tennessee. Content varies with faculty. Students should check specific course content as printed in the Arrowmont timetable published each spring.

ASIAN STUDIES
See Interdisciplinary Programs.

ASTRONOMY
See Physics and Astronomy.

AUDIOLOGY AND SPEECH PATHOLOGY

Professors: P.J. Carney (Head), Ph.D. Iowa; C.W. Asp, Ph.D. Ohio State; D.M. Lipscomb (Adjunct), Ph.D. Washington; H.L. Luper, Ph.D. Ohio State; I.V. Nabelek, Ph.D. Czech Technical (Prague); H.A. Peterson, Ph.D. Illinois; B. Silverstein, Ph.D. Purdue.

Associate Professors: S.B. Burchfield, Ph.D. Michigan State; C.J. Ferrell, M.A. Tennessee; P. Gordon, Ph.D. Tennessee; E.L. Hamby, Ph.D. Iowa; A. Krishnan, Ph.D. Texas (Dallas); J. Thelin, Ph.D. Iowa; G. Wallace, Ph.D. Northwestern.

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

The Department of Audiology and Speech Pathology offers course 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. Information about the 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 undergraduate advisor in the department as early as possible in their programs. Suggested elective courses for students not majoring in Audiology and Speech Pathology include 304, 305, 320, 371, 465 and 473.


Applicants for enrollment in clinical practice must submit an application to the departmental Director of Clinical Services. Requirements for enrollment in practicum courses (434 in Speech Pathology or 445 in Audiology) include a minimum cumulative GPA of 2.7 (or 3.0 in the last 30 hours of enrollments), a minimum of "C" in all courses taken within the department, successful completion of 433, 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 clinical practicum experience may graduate with a degree from the department, but will not be recommended for graduate study at UTK. Requests for exceptions to this rule may be submitted to the departmental Admissions Committee.

Additional requirements for professional certification include courses in biological/physical sciences, mathematics, and at least six semester hours in behavioral and/or social sciences which pertain to the understanding of normal/abnormal behavior. Students majoring in Audiology 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); J.G. Joshi, Ph.D. Poona (India); K.J. Mony, Ph.D. Rochester; W.D. Wicks, Ph.D. Harvard.

Associate Professors: J. Koonz (Head), Ph.D. Kentucky; D. Roberts, Ph.D. California (Davis).
Assistant Professors: B. Bruce, Ph.D. California (Berkeley); E. Howell, Ph.D. Lehman; G. Whitson, Ph.D. Louisiana State; E. Serpess, Ph.D. Hacettepe (Turkey).

The B.S. major in Biochemistry consists of Biology 210-220, Chemisty 350-360-369, Physics 221-222, Biochemistry 410, 419, 420, 471, 481, and 3 hours chosen from: Biochemistry 452; Botany 321; Microbiology 310, 319, 410, 430, 439; Zoology 330, 350, 410, 430, 439, 440. Prerequisites to this major are Biology 110-120 (or 150), Chemistry 120, 130, Math- ematics 141, 142 and Computer Science 102.

For a minor in Biochemistry, the following courses are required: Chemistry 350, 360, 369; Biochemistry 410. 419 plus a course for additional credit from Biochemistry 420, 471, 481, and 452.

BIOLOGY CONSORTIUM

Acting Director: R.W. Holton, Ph.D Botany.

Basic Faculty:

A B.S. major in Biology may be obtained by completing either Concentration A or Concentration B.

Concentration A is designed for students whose career goals require a broad-based education in the biological sciences and who are directed toward secondary education or the business world and are not planning on graduate or professional school in a biological discipline.

Prerequisites are Biology 110-120 or Botany 110-120, or Zoology 117-118; Chemistry 120-130; Mathematics 115-121 or 115-121 or 141-142; or Physics 121-122, or General Program, Organismal Biology, or Cellular and Molecular Botany. Requirements for all three concentrations are: Botany 110-120 or Biology 110-120; and Chemistry 120-130. Corequisite to the General Program is one of the following sequences: Mathematics 115-121 or 141-142 or 151-152, or Physics 121-122, or Geology 101-102, or Chemistry 350-360-369.

Concentration B is designed primarily for students whose career goals involve graduate school in a biological discipline or professional school, (medicine, dentistry, etc.). Prerequisites are Biology 110-120 or Botany 110-120 or Zoology 117-118; Chemistry 120-130; Mathematics 141-142 or 151-152; and Physics 221, 222. Requirements in the major are Biology 210, 220, and 230; Chemistry 350, 360, 369; Biochemistry 410; and fourteen hours of additional course work in biological science selected from any 300 or 400 level course offered in Biochemistry, Botany (except 305, 306, 309), Microbiology, and Zoology. No more than 8 hours from one department may count toward the major and only 3 hours of undergraduate research. One of the following capstone courses may count both toward the major and toward Upper Division Distribution requirements: Biochemistry 420, Microbiology 495, or Zoology 409.

A Minor consists of Biology 210, 220, 230 and 8 hours of upper-division courses chosen from the list below. Biochemistry 410-419; Botany, any 300- or 400-level courses; Microbiology, any 300- or 400-level courses; Zoology, any 300- or 400-level courses. (In meeting the upper-division minimum requirement, not more than 6 hours may be credited from any one biological science department, and not more than 3 hours of research courses may be credited.) Prerequisites to the minor are introductory biology courses (Biology 110-120 or Zoology 117-118) and Chemistry 120-130.

BOTANY

Professors:
- E.E. Schilling (Head), Ph.D. Indiana; J.D. Caponetti (Undergraduate Coordinator), Ph.D. Harvard; E.E.C. Clebsch, Ph.D. Duke; M.B. Grunz, Ph.D. SYNY (Stony Brook); H.R. DeSelms (retired), Ph.D. Ohio State; A.M. Evans (Emeritus), Ph.D. Michigan; W.R. Herndon (Alumni Distinguished Service Professor), Ph.D. Vanderbilt; L.G. Hickok, Ph.D. Massa- chusetts; R.W. Holton, Ph.D. Michigan; K.W. Hughes, Ph.D. Utah; L.W. Jones, Ph.D. Texas; J.F. McCormick, Ph.D. Emory; B.C. Mullin, Ph.D. North Carolina State; F.H. Norris (Emeritus), Ph.D. Ohio State; R.H. Petersen (Distinguished Professor), Ph.D. Columbia; A.J. Sharp (Emeritus), Ph.D. Ohio State; W.O. Smith, Ph.D. Duke; P.L. Walne (Benwood Distinguished Professor), Ph.D. Texas.

Associate Professors:
- C.C. Amundsen, Ph.D. Colorado; A.S. Heilman, Ph.D. Ohio State; O.J. Schwarz, Ph.D. North Dakota; R. Smith, Ph.D. Tennessee; B.E. Wofford (Director of Herbarium) Ph.D. Tennessee.

Lecturer:

The B.S. major in Botany may be obtained by completing one of the three concentrations: General Program, Organismal Botany, or Cellular and Molecular Botany. Prerequisites for all three concentrations are: Botany 110-120 or Biology 110-120; and Chemistry 120-130. Corequisite to the General Program is one of the following sequences: Mathematics 115-121 or 141-142 or 151-152, or Physics 121-122, or Geology 101-102, or Chemistry 350-360-369.

Concentration in Organismal Botany requires: Biology 210, 230; Botany 310, 320, 321, 330, 1 hour of 371, 1 hour from 431, 441-442; 4 hours of additional Botany, and 3 hours of upper-division courses selected from Biochemistry, Microbiology, or Zoology. A minimum of 31 hours completes this major’s option.

Concentration in Cellu lar and Molecular Botany requires: Biology 210, 220; Botany 310, 310, 320, 330, or 451, 1 hour of 371, 2 hours from 400 or 441-442; Biochemistry 410; and 3 additional hours selected from Botany (305, 306, 309) do not meet this requirement). Biology 230 is recommended for fulfilling this requirement); or upper division Biochemistry, Microbiology, Zoology. A minimum of 40 hours completes this major’s option (includes 6 hours of Organic Chemistry).

Concentration in Plant Biology consists of 2 courses from Biology 210, 220, 230, 1 hour of Botany 371, and 6 hours of upper-division Botany (not more than one course from 305, 306, 309) and 3 addi- tional hours of upper-division Botany or related Biological sciences. Prerequisite to the minor is Botany 110, 120 or Biology 110, 120.

CHEMISTRY

Professors:
- G. Mamantov (Head and Alumni Distinguished Service Professor), Ph.D. Louisiana State; J.L. Adcock, Ph.D. Texas; S. Alexander, Ph.D. California (Berkeley); R.C. Baker, Ph.D. Ohio State; J.E. Bartmess, Ph.D. Northwestern; J.E. Bloor, Ph.D. Manchester (England); W.E. Bull, Ph.D. Illinois; J. Q. Chambers, Ph.D. Kansas; K.D. Cook, Ph.D. Wisconsin; J.A. Dean (Emeritus), Ph.D. Michigan; J.F. Eastham (Emeritus), Ph.D. California (Berkeley); W. Fletcher (Emeritus), Ph.D. Minnesota; F.A. Grimm, Ph.D. Cornell; G.A. Guichon (Distinguished Scientist, Science Alliance Center of Excellence), Ph.D. Universite de Paris (France); G.W. Kabalka (Alumni Distinguished Service Professor), Ph.D. Purdue; D.C. Kladner (Emeritus), Ph.D. Princenton; J.D. Kovac, Ph.D. Yale; M.H. Lietzke, Ph.D. Wisconsin; L.J. Magid, Ph.D. Tennessee; R.M. Magid, Ph.D. Yale; R.M. Pagni, Ph.D. Wisconsin; J.R. Peterson, Ph.D. California (Berkley); G.K. Schwalier (Alumni Distinguished Service Professor), Ph.D. Illinois; M.J. Sepaniak, Ph.D. Iowa State; E.S. Serpersu, Ph.D. Hacettepe (Turkey).

Corequisites for both of the other concentrations: Mathematics 141-142 or 151-152; Physics 121-122 or Geology 101-102; and Chemistry 350-360-369.
It is recommended that a portion of these elective Experience). The number of credit hours shown in Upper Level Distribution.

The distribution requirementsof the College of Liberal level sequence .

Student who has nothad two yearsof one of these Electives ............................................ 2

° Chemistry

Mathematics

Chemistry

Sophomore

Foreign Language (intermediate level sequence) .................................................. 6

Distribution ............................................................. 3

Chemistry 140 ..................................................... 2

Chemistry 350-360 ............................................. 6

Chemistry 369 ..................................................... 2

Chemistry 230 ..................................................... 3

Mathematics 241-251 ........................................... 7

Physics 137-131 .................................................. 7

Distribution ............................................................. 3

Chemistry 310-320 ............................................. 6

Chemistry 319-329 ............................................. 3

Chemistry 401-410 ............................................. 5

Chemistry 473-483 .............................................. 6

Chemistry 477-487 .............................................. 6

Distribution ............................................................. 9

Electives ............................................................... 3

Senior

Chemistry 430 ..................................................... 3

Chemistry 406 ..................................................... 2

Chemistry 409 ..................................................... 3

Chemistry Electives .................................................. 6

Distribution ............................................................. 6

Electives ............................................................... 9

Total: 124 hours

**must be chosen from German, French or Russian; a student who has not had two years of one of these languages in high school will need to complete the elementary sequence before taking the intermediate level sequence.

The distribution requirements of the College of Liberal Arts are satisfied by taking: Non-U. S. History (6 hours). Social Science (6 hours), Humanities (6 hours), and Upper Level Distribution (3 hours in either U.S. Studies or Foreign Studies and 3 hours Capstone Experience). The number of credit hours shown in each year of the curriculum are merely intended as guidelines.

It is recommended that a portion of these elective hours be applied to advanced courses in mathematics, and polymer engineering.

To be chosen from Chemistry 400, 405, 450, 454, and 490. Chemistry 405 will also satisfy 3 hours of Upper Level Distribution (Capstone Experience).

B.S. Degree and Chemistry Major

For students wishing to major in chemistry but desiring a more flexible course of study than the B.S. in Chemistry, there is the regular B.S. degree. Because these two programs are designed for students with different careers goals, the following paragraphs should be carefully considered before selecting courses. A student who desires to major in chemistry should ask the Liberal Arts Advising Center for assignment of a faculty advisor in the Department of Chemistry. For further information, contact the Head of the Department of Chemistry, 575 Buehler Hall.

The B.S. degree is intended primarily for students who may have career objectives in fields other than chemistry, but in fields where chemistry has direct application such as medicine, dentistry, pharmacy, business, and ecology. The B.S. in Chemistry degree is recommended for students planning a career in chemistry. However, with the proper choice of physics, mathematics, and physical chemistry courses, the regular B.S. program is also suitable for such students.

Prerequisites to the major are Chemistry 120-130 or (preferably) 121-131 or 128-138, Chemistry 140, MATH 141-142 or (preferably) 141-142 or 151-162. Corequisite to the major is Physics 221-222 or 137-131.

The major consists of Chemistry 310, 319, 350-360, 369, 471-487, 483, 479, and 10 hours of additional work in chemistry that includes at least one laboratory course or lecture/laboratory course up to 6 hours of Biochemistry 410-420 or Geology 460 may be applied to the 10-hour requirement.

For students planning careers in chemistry, the recommended courses (from the list above) are Mathematics 141-142, Physics 137-131, and Chemistry 473-483; although not required, certain additional courses are strongly suggested for students planning to become chemists: Mathematics 241-251 and Chemistry 230-320, 328, and 406. Because professional chemists need a reading knowledge of foreign languages, intermediate level competency should be acquired in German, French or Russian. Students who are undecided about their career goals should consult a chemistry faculty advisor at the earliest opportunity. Unlike the Bachelor of Science in Chemistry, the regular B.S. degree is not approved by the Committee on Professional Training of the American Chemical Society.

A minor in chemistry shall consist of the successful completion of 15 hours of chemistry courses numbered 200 and above including 310, 319 (4 hours) and at least one of the following sequences: 350-360, 369 (8 hours); or 471-481, 479 (8 hours); or 473-483, 479 (8 hours).

Cooperative Program

A 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 are required to have at least a 2.5 average to enter and remain in the program.

Placement in General Chemistry Sequences

The sequences which meet all requirements of a year of general chemistry and which serve as prerequisite for upper-division courses are 120-130, 121-131, and 128-138. Chemistry majors are strongly encouraged to take either one 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 finds a need to complete the 120-130 series after having completed 100 may substitute 100 for 120 with approval of the Department of Chemistry and may then take 130. Credit may be received for only one of the courses 100, 120, 121, or 128.

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 students who has already made considerable progress in science. Class size is limited to promote faculty-student interaction. Selection is based on ACT scores, 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 B in 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, and 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 Chemistry 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:

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

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

There are two intermediate options in the Greek program, both of which fulfill the Liberal Arts Language requirement and prepare students for advanced work in the third and fourth years. The Classical Option is 261 followed by Upper Division. The New Testament Option in second year Greek is 261-262.

The Greek minor consists of 18 hours including 12 hours of Greek language courses numbered above 200, and 6 hours chosen from Classics 221-222, 331, 334, 341. The student minoring in Greek is strongly encouraged to have as background History 310 or 311 before taking the capstone course. The student minoring in Latin is encouraged to begin or take advanced work in Greek.

The Latin 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. The student minoring 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 such credits. 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 a 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 any course in a sequence may receive credit for it by passing the appropriate proficiency examination.

COMPARATIVE LITERATURE
See Interdisciplinary Programs.

COMPUTER SCIENCE

Instructor:
J.W. 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, plus an additional 3 hours of CS Advanced Topics Courses. Mathematics 141-142, 221-222, 231, 241, and 261, Physics 151-152, and English 461 are also required. Students must select a two-semester lab science sequence in either Biology or Chemistry, or a sequence approved by the Computer Science Department.

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 computer science courses. Progression requirements are adjusted periodically and current requirements can be determined by contacting the Undergraduate Programs Office, or by contacting the Computer Science Department directly. Students who enter the College of Liberal Arts as freshmen or sophomores are expected to apply for the major immediately after completing 10 hours of Computer Science.

In 1994 the progression standards were:
1. Has completed at least the following three courses at UTK with an average of 3.0 or better: CS 102, 111, 112.
2. Has achieved an average of 2.5 or better of grades in all Computer Science courses taken at UTK that apply to the major. All grades received for these courses are averaged.
3. Has received at most one W or repeated grade in a Computer Science course.
4. Has not been convicted for academic dishonesty in a Computer Science course or for abuse of university computing privileges.

Progression standards are subject to change; current standards are available in Undergraduate Programs Office and the Computer Science Department Office, 107 Ayres Hall.

Transfers from Other UTK Programs:
Students in other colleges or majors at UTK must apply for progression to the major at the earliest possible date but definitely 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. Only in exceptional circumstances will application be considered after 75 hours of coursework (at UTK or elsewhere) have been attempted. It should not be supposed that CS admission must be granted to those who accumulate a substantial number of hours in CS courses. On the contrary, an academic record reflecting substantial work after 75 hours in the CS curriculum may be taken as prima facie evidence of intent to evade this policy and may result in denial of admission.

Transfers from other institutions:
Transfers from other institutions are generally handled the same as transfers from other UTK programs. However, a prospective transfer student should consult with an advisor in the Computer Science Department to determine which courses can be accepted toward the Computer Science major. It should not be assumed that courses with similar names to UTK courses can be accepted toward the major.

Appeals:
Those students denied progression may appeal to the Undergraduate Committee of the Computer Science Department, Information on the appeals process can be obtained by calling the Computer Science Department, 974-5067, the Undergraduate Programs Office, 974-5096, or by contacting an advisor in that office.

ECOLOGY

Dewey L. Bunting, Director
J. Larry Wilson, Associate Director
Paul A. Delcourt, Associate Director

Shared Faculty:
Adams, Marshall, Ph.D., ORNL: Amundsen, C.C., Ph.D. Botany, Baylock, B.G., Ph.D. ORNL: Buckner, E.R., Ph.D., Forestry, Wildlife and Fisheries; Bunting, Dewey, L. Ph.D. Zoology; Burghardt, G.M, Ph.D. Psychology, Clebsch, E.E.C., Ph.D. Botany; Cooper, Lee, Ph.D. ORNL: Coutant, C.C., Ph.D. ORNL: DeAngelo, D.L., Ph.D. ORNL: Dearden, D.L., Ph.D. Forestry, Wildlife and Fisheries; Delcourt, Hazel, Ph.D. Geology; Delcourt, Paul, A., Ph.D. Geology; Dimmick, Ralph W., Ph.D. Forestry, Wildlife and Fisheries; Drake, James A., Ph.D. Zoology; Echtenacht, Arthur, C., Ph.D. Zoology; Elwood, J.W., Ph.D. ORNL: Emmanuel, William, Ph.D. ORNL; Etmier, D.A., Ph.D. Zoology; Farkas, Walter, Ph.D. Environmental Practice; Fribourg, Henry A., Ph.D. Plant and Soil Science; Gardner, R.H., Ph.D. ORNL; Gehrs, C.W., Ph.D. ORNL; Gist, C.S., Ph.D. ORAU; Gittleman, John L., Ph.D. Zoology; Goss, L. Barry, Ph.D. Science; Apal, G.C., Ph.D. Phillogy; Gross, L.J., Ph.D. Mathematics; Hallam, Thomas G., Ph.D. Mathematics; Harden, Carol P., Ph.D. Geography; Herbes, S.E., Ph.D. ORNL; Hildebrand, S.G., Ph.D. ORNL; Hilly, J.W., Ph.D. Entomology and Plant Pathology; Horn, Sally P., Ph.D. Geography, Houston, M. Ph.D. ORNL; Kelly, Jim, Ph.D. TVA: Kimmel, B.L., Ph.D. ORNL; McCarthy, J.F., Ph.D. ORNL; McCormick, J. Frank, Ph.D. Botany; McCracken, G.F., Ph.D. Zoology; McKinley, M.L., Ph.D. Geology; Mulholland, P.J., Ph.D. ORNL; Nodvin, Stephen C., Ph.D. CPSU; Norby, Richard, Ph.D. ORNL; O'Neill, R.V., Ph.D. ORNL; Pagli, R.M., Ph.D. Chemistry; Parker, Charles, Ph.D. ORNL; Pelton, Michael R., Ph.D. Forestry, Wildlife and Fisheries; Pllnn, S.L., Ph.D. Zoology; Pless, C.D., Ph.D. Entomology and Plant Pathology; Post, W., Ph.D. ORNL; Reed, R.M., Ph.D. ORNL; Rehefer, J.B., Ph.D. Geography; Reichie, D.E., Ph.D. ORNL; Rennie, J.C., Ph.D. Forestry, Wildlife and Fisheries; Reynolds, John H., Ph.D. Plant and Soil Science; Rickert, Susan E., Ph.D. Zoology; Rose, K.A., Ph.D. ORNL; Sayler, Gary S., Ph.D. Microbiology; Schlaubum, S.E., Ph.D. Forestry, Wildlife and Fisheries; Schneider, Gary, Ph.D. (Acting Dean), Agricultural Sciences and Natural Resources; Smith, W.O., Ph.D. Botany; Stacey, G., Ph.D. Microbiology, Stewart, A., Ph.D. ORNL; Strange, R.J., Ph.D. Forestry, Wildlife and Fisheries; Turner, Monica G., Ph.D. ORNL.
VanHook, R.I., Ph.D. ORNL; VanWinkle, W., Ph.D. ORNL; Vaughn, G., Ph.D. Zoology; Walton, B.T., Ph.D. ORNL; Wahry, E.L., Ph.D. Chemistry; White, D.C., Ph.D. ORNL; White, D.C., Ph.D. Biochemistry; Wilson, J.K., Ph.D. Forestry, Wildlife and Fisheries; Witherspoon, J.P., Ph.D. ORNL.

The Graduate Program in Ecology offers Master of Science and Doctor of Philosophy degrees. This interdisciplinary program provides advanced courses in contemporary ecology for students from undergraduate programs in basic and applied biology, social sciences, mathematics 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 Environmental Sciences Division of the Oak Ridge National Laboratory, the National Park Service, and the Tennessee Valley Authority provide advisors and research facilities. The Great Smoky Mountains, Cumberland Plateau, valley and ridge topography, TVA reservoirs and wild rivers provide locally a spectrum of natural habitats and consequent biological diversity that is truly unique. In addition, faculty research programs provide opportunities for student research elsewhere on the continent and abroad. Application forms for admission should be obtained from the Graduate School as well as the program. Inquires concerning the admission requirements should be addressed to the Director, Graduate Program in Ecology, University of Tennessee, Knoxville, Tennessee, 37996-1610. Consult the Graduate Catalog for listing of graduate level courses.

ECONOMICS
See faculty listing the College of Business Administration.

The program in economics combines a broad liberal education with the rigorous study of current issues of the day such as employment, inflation, poverty, wealth, and the benefits and costs of economic growth.

Courses offered in the Department of Economics of the College of Business Administration provide opportunity for a major or minor in economics in the College of Liberal Arts.

Requirements for a B.A. major in economics consist of: (1) Economics 201 or equivalent honors courses as a prerequisite to the major and (2) Economics 311 and 313 plus 21 additional hours in upper division economics courses. Majors are encouraged to satisfy Part II of the Natural Science Distribution Requirement with one of the mathematics packages Mathematics 115-121, 121-122, or 141-142. Students planning graduate work in Economics should elect Mathematics 141-142.

Honors: The Department of Economics offers an honors B.A. degree. Candidates for the honors degree must complete 311, 313, and 21 upper division hours to include the honors seminar 491. Students interested in the honors degree should contact the department for details.

A minor consists of (1) Economics 201; and (2) 12 additional hours at the upper-division level. Minors are encouraged to include Economics 311 and 313.

In addition, certification to teach economics in secondary schools is available. Students with such interest should consult the Certification Clerk, Room 212, Claxton Education Building as early in their program as possible to determine the appropriate requirements.

ENGLISH

Candidates: D.A. Carroll (Head), Ph.D. North Carolina; P.G. Adams (Young Professor Emeritus), Ph.D. Texas; E.W. Bratton, Ph.D. Illinois; D.R. Cox (Associate Head), Ph.D. Missouri; K. Curry (Emeritus), Ph.D. Yale; R.Y. Drake, Jr., Ph.D. Yale; W. Dykesman (Adjunct), B.A. Northwestern; A.R. Ensor, Ph.D. Indiana; R.J. Finner (John C. Hodges Professor), Ph.D. North Carolina; J. Fisher (John C. Hodges Professor Emeritus), Ph.D. Pennsylvania; N.M. Goelee (Alumni Distinguished Professor), Ph.D. Yale; T.J.A. Hoffmann, Ph.D. Cambridge; R.M. Kelly (Young Professor), Ph.D. Duke; B.J. Leggett (Humanities Professor), Ph.D. Florida; I. Leki, Ph.D. Illinois; M.A. Lofaro, Ph.D. Maryland; C. Maland, Ph.D. Michigan; F.D. Miller (Emeritus), Ph.D. Virginia; R.B. Miller, Ph.D. Brown; A.R. Penner, Ph.D. Colorado; J.E. Reese, Ph.D. Kentucky; N.J. Sanders (Young Professor), Ph.D. Shakespeare Institute, Stratford-on-Avon; D.J. Schneider (Douglas Bruce Professor Emeritus), Ph.D. Northwestern; D.M. Scara, Ph.D. North Carolina; W.R. Shurr (Humanities Professor), Ph.D. North Carolina; B.T. Sturtev (Emeritus), Ph.D. Northwestern; J.C. Thomas, M.A. Stanford; J.B. Tramer, Jr., Ph.D. Princeton; R.H. Walker (Emeritus), M.A. Texas; T.V. Wheeler, Ph.D. North Carolina; J.M. White (Young Professor), M.A. Cambridge; N. Wright (Emerita), Ph.D. Yale.


Professor: Rakesh Bhatt, Ph.D. Texas.

Prerequisites and Corequisites: Eighteen semester hours in English courses above the freshman and sophomore level with a better than B average and a B average in all other undergraduate courses. Students who lack eighteen semester hours of undergraduate English may be required to take and pass with a grade of B or better a designated number of undergraduate courses at the University of Tennessee before being admitted to graduate study. Admission is also dependent on satisfactory GRE scores. Consult the Graduate Catalog for specific requirements.

FRENCH
See Romance Languages.
**GEOGRAPHY**

**Professors:** S.R. Jumper (Head), Ph.D., Tennessee; C.S. Aiken, Ph.D., Georgia; T.L. Bell, Ph.D., Iowa; R.A. Forrest, Ph.D., University of New Orleans; E.H. Hammond (Emeritus), Ph.D., California (Berkeley); R.G. Long (Emeritus), Ph.D., Northwestern; C.W. Minkel (vice chancellor for academic affairs and dean of the Graduate School), Ph.D., Syracuse; C.T. Paludan (UTSI), Ph.D., Denver; D.A. Raislon, Ph.D., Northwestern; T.H. Schmudde, Ph.D., Wisconsin; T.J. Wilbanks (Adjunct), Ph.D., Syracuse.

**Associate Professors:** T.J. Blasing (Adjunct), Ph.D., Wisconsin; L.W. Biehnman, Jr., Ph.D., Wisconsin; M.A. Brown (Adjunct), Ph.D., Ohio State; C.P. Harden, Ph.D., Colorado (Boulder); S.P. Horn, Ph.D., California (Berkeley); L.M. Pulipher, Ph.D., Southern Illinois; J.B. Rehder, Ph.D., Louisiana State.

**Assistant Professors:** Cheng Liu, Ph.D., Tennessee; R. McGowan-ice (Adjunct), Ph.D., Oregon; J.J. Ray (Adjunct), Ph.D., Tennessee.

**A B.A. major in Geography** Geography 131 and 132 are prerequisite to a major in Geography, which consists of Geography 310, 320, 340, 415, and 490, and 12 additional credits selected from Geography courses at the 300 and 400 levels. At least one course must be chosen from among Geography 361, 363, 365, 371, 372, 373, 375, and 379, and at least nine hours must be at the 400 level.

**Minor:** The B.A. minor in Geography consists of 15 semester hours of Geography courses at the 300 level or above.

**GEOLOGICAL SCIENCES**

**Professors:** H.Y. McSween (Head), Ph.D., Harvard; T.W. Broadhead, Ph.D., Iowa; R.D. Hutcher (UT Knoxville/ORNL Distinguished Scientist), Ph.D., Tennessee; O.C. Kopp, Ph.D., Columbia; T.C. Labotka, Ph.D., Caltech; K.C. Misra, Ph.D., Western Ontario; R.E. McLaughlin (Emeritus), Ph.D., Tennessee; L.A. Taylor, Ph.D., Lehigh; K.R. Walker (Carden Professor), Ph.D., Yale; J.G. Walls (Emeritus), Ph.D., North Carolina.

**Associate Professors:** D.W. Byerly, Ph.D., Tennessee; G. M. Clark, Ph.D., Pennsylvania State; P.A. Dalcourt, Ph.D., Minnesota; S.G. Dries, Ph.D., Wisconsin; W.M. Dunne, Ph.D., British; M. McKinney, Ph.D., Yale; R.T. Williams, Ph.D., V.P.I.

**Assistant Professors:** D. McKay, Ph.D., Waterloo; C.I. Mora, Ph.D., Pennsylvania.

**Prerequisites to a B.S. major are:** Geography 101-102; Chemistry 120-130; Mathematics 141-142 or 147-148; plus one of two semester sequences and one additional course from Physics 151-152 (or 221-222) and Biology 110-120. The single course requirement may be satisfied by high school course work in that area.

**Major requirements:** Geography 310, 320, 330, 340, 370, and 440 (22 hours); plus 12 additional hours of geology courses at the 400 level. Geology majors must attend the UTK field camp or approved equivalent elsewhere. (For equivalent camps, prior approval by the Department on an individual-case basis is required.)

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

**Concentration in Engineering Geology:** Students wishing to prepare for a career in environmental/engineering geology, where communication with engineers is important, may elect this multidisciplinary concentration. Electives in the major and some of the courses necessary to satisfy the Liberal Arts College Distribution requirements are specified. Required coursework includes: Geology 310, 320, 330, 340, 370, 440, 450, 455, 456, 470 and 485; Mathematics 141, 142, or (equivalent honors courses) and 231 (or substitution of Geology 401 for Math 231); Physics 231; Basic Engineering 101, 121, and 131; Civil Engineering 330, 435 and any one of the following: 390, 440, 450, 530, 532 or Environmental Engineering 535; Plant and Soil Science 210, English 461; and Speech 240. Courses from the College’s approved lists for satisfying the Social Sciences, Humanities and Upper Level Distribution requirements will be recommended and approved by the student’s advisor.

**Honor:** Students who have completed 5 upper division courses in the major and have an overall GPA of 3.0 may elect to participate in an enrichment program involving research in the geological sciences. Research, in the form of an approved senior thesis, will be accomplished by successful completion of a minimum of 6 semester hours of Geology 491, 492, or 493 under the direction of a faculty member. The results of the research must be formally presented to the Department’s Seminar (Geology 595), the Tennessee Academy of Science, or other acceptable professional organization. Also, an approved written copy of the thesis is submitted to the University’s Archives. A GPA of 3.0 must be maintained throughout matriculation. Interested students should consult their advisor for details about participation.

**GERMANIC AND SLAVIC LANGUAGES**

**Professors:** James E. Faison, Ph.D., Pennsylvania; Donald M. Fiene, Ph.D., Indiana; Henry Kosz, Ph.D. (Emeritus), Ph.D., Ohio State; John C. Osborne, Ph.D., Northwestern; Ursula C. Ritzenhoff (Emerita), Ph.D., Connecticut.

**Associate Professors:** Carolyn R. Hodgson, Ph.D., Chicago; Nancy A. Lauckner, Ph.D., Wisconsin; David E. Lee (Head), Ph.D., Stanford; Chauncey J. Mellor, Ph.D., Chicago.

**Assistant Professor:** Beverly Moser, Ph.D., Georgetown.

**Instructors:** Rosemarie Greenman, M.A., Pennsylvania State; Avigail Rashkovsky, M.A., Tartu.

**Placement Examination:** Students who have had previous work in German or Russian either in high school or at another college should take a placement test to determine what level course they should elect. 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 receiving a grade of C or better on such a test will receive credit for an appropriate number of courses. Superior students are encouraged to take as rapidly as their achievement permits. Students who omit any course in a sequence may receive no 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 programs in consultation with a departmental faculty advisor. German 201-202 or the equivalent is a prerequisite to the major. The major shall consist of at least 24 hours of German courses numbered above 300, including German 363 and usually including German 301-302. Courses in English translation or German 331-332 do not count toward the major. In order to graduate, majors will be required to take a proficiency test in German. It is recommended that German majors also take History 151-152 or 334-335 and 6 hours of 200 level English courses. Majors are also strongly urged to consider a minor in some other area of the humanities.

**Minor in German:** German 201-202 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 301-302 and 12 additional hours of courses numbered above 300 (excluding 331-332 and courses in English translation).

**Major in German or Russian with a Concentration in Language and World Business:** Students who wish to prepare for careers in international business must complete (a) a special language major in either German or Russian, (b) professional emphasis in either International Business or International Logistics and Transportation, and (c) some form of practical experience related to the concentration. Admission is by permission of the program director.

(a) The Special Language Major:

(1) The German major consists of 29 hours.

The following are required: German 199, 201-202, 301-302, 311-312, 363, 485, 491 or 493, 323 or any approved 400 level course.

(2) The Russian major consists of 32 hours.

The following are required: Russian 199, 301-302, 311-312, 401-402, 451-452, 490 or 491, and 323 or 326 from the following: 221, 222, 226, 321, 326, 371, 372, or any 400-level courses.

(b) Professional Emphasis:

(1) International Business students will take...
25 hours. The following are required: Accounting 201, Economics 201 or 207 and 321, Business Administration 311 and 495, Management 471, Logistics and Transportation 441, and an elective from a related business area chosen in consultation with an advisor.

(2) International Logistics and Transportation students will take 25 hours. The following are required: Accounting 201, Economics 201 or 207, Business Administration 311 and 495, Management 471, and Logistics and Transportation 301, 302, and 441.

(c) Practical Experience: Through German 490 or Russian 490, each Language and World Business student must undertake study abroad; an internship; or a relevant research project for a minimum of 3 hours (included in major requirements).

Additionally, Language and World Business students must consult an advisor in the Department of Romance and Asian Languages or in Germanic and Slavic Languages for help in selecting relevant courses under the Basic Skills and Distribution requirements of the College.

Students interested in the Language and World Business program should contact the Director for advising as early as possible in their college careers. Students must have attempted 45 hours in order to be considered for progression to the Language and World Business major. The academic record presented will be assessed by the Director of Language and World Business Program. Minimum requirements for progression to the concentration are a 2.75 cumulative average in the Basic Skills and Distribution courses specifically required by the College of Liberal Arts and in the Language and World Business plan of studies, and a 3.0 average in language courses. Progression is based on availability of space in the program. Progression standards are adjusted periodically, and current requirements are available from the Language and World Business Director. For further information inquire in T-1208 McClung Tower.

B.A. Major in Russian: Russian 201-202 is a prerequisite to the major. Russian majors should prepare their programs in consultation with the departmental faculty advisor. The major in Russian shall consist of at least 50 hours of Russian courses, including Russian 301-302; 311-312; 401-402; 451-452; and 6 hours from Russian 221, 222, 226, 321, 322, 326, 371, 372, or other courses numbered above 400. It is recommended that majors also take Russian History 340-341 and 6 hours of sophomore English. Majors are urged to consider a minor in some other area of the humanities.

Minor in Russian: Russian 201-202 is a prerequisite to the minor. The minor in Russian shall consist of at least 18 hours of Russian courses, including Russian 301-302; 311-312; and 6 hours from Russian 221-222 or other Russian courses numbered above 300.

GREEK
See Classics.

HEBREW
See Religious Studies.
493 combined can be applied to a minor. In planning their programs minors must include courses from at least two other departments which crosslist courses with African-American Studies in addition to the AAAS core course offerings.

AMERICAN STUDIES

Chair:
Dr. George B. Hutchinson (English)

Major concentration: English 231 and either 232 or 233 are prerequisite to a major concentration in American Studies which consists of 27 upper-division semester hours including American Studies 310; at least two approved American History courses; and six hours of approved courses chosen from the following disciplines: anthropology, economics, political science, or sociology. Courses in the major will be chosen in consultation with an American Studies advisor, from a list approved by the program, in such a way that at least 3 courses help the student achieve a focus within the field. One course in the student's curriculum must specifically focus upon one or more American ethnic minority cultures. An additional 3-6 hours of American Studies 493 (Independent Study) are recommended for majors in their senior year. A list of approved elective courses is published annually.

All majors and prospective majors should contact the Chair of the program.

The American Studies minor consists of at least 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. W.L. Humphreys (Religious Studies)

The major concentration in Ancient Mediterranean Civilizations consists of Classics 381 and 382, History 366, and 18 additional hours from the following list, distributed in such a way that no more than 12 hours are in any one of the three divisions: (a) Ancient Near Eastern Cultures: Religious Studies 311, 312 326; (b) Greek Culture: Classics 221, 222, 232, 233, 253, 331, 334, 383; History 310; Philosophy 120, 320; Political Science 475; Religious Studies 321, 322, 326; and (c) Roman Culture: Classics 222, 233, 253, 383, 462; History 311; Philosophy 120, 320; Political Science 475; Religious Studies 321, 322, 326, 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 nine of the remaining hours can come from one division.

Courses of variable content, topics courses, reading and research, off-campus, or foreign study in the Departments of Art, 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 the hours must be taken from courses listed within one of the four geographical-cultural areas (Islam; World South Asia; China; Japan), and 6 of those 12 hours must come from Subdivision A and 6 from Subdivision B. Subdivision A includes Art, Literature, Music, Philosophy, and Religious Studies; Subdivision B includes Anthropology, Economics, Geography, History, Political Science, and Sociology.

Six of the 26 hours must be taken from courses listed for other geographical-cultural areas.

Prerequisite to the concentration is Asian Studies 101-102. Corequisite to the major concentration is competence in a major Asian language of the chosen geographical-cultural area. Competence is defined as the successful completion of the 200-level sequence of that language, or by demonstration of equivalent mastery.

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 6 from Subdivision B. Three hours must be taken from courses in another geographical-cultural area.

CINEMA STUDIES

Chair:
Dr. Charles Maland (English)

The Cinema Studies minor consists of fifteen hours, including English 281 Introduction to the Film Studies, and Art 292 Film Design. It is strongly recommended that Introduction to Film Studies be taken before selection of electives provided for in the minor.

For further information consult the chairperson of the Cinema Studies Program, Charles Maland, English Department. Other related courses such as history, philosophy, and sociology may be approved through consultation with Dr. Maland. Approved Area Courses are: Art 292 Film Design (3); Art 392 Intermediate and Advanced Film Production (3-5); English 311 Introductions to Film Studies (3); Broadcasting 430 Producing for Television (3); English 281 Introduction to Film Studies (3); English 334 Film and American Culture (3); English 489 Special Topics in Film (3); French 420 French Cinema (3); German 323 German Film (3); Italian 421 Topics in Italian Literature and Cinema (3); Political Science 312 Popular Culture and American Politics (3); Women's Studies 469 Sexuality and Cinema (3).

COMPARATIVE LITERATURE

Chair:
Dr. H.C. Rutledge (Classics)

A major concentration in comparative literature consists of 27 hours including Comparative Literature 201 and 401-402, and 9 hours of literature in a foreign language in courses numbered 300. The remaining 9 hours should include literature courses, either in English or in a foreign language, numbered 300 or above, from at least two of the following departments: Classics, English, Germanic and Slavic Languages, Religious Studies, Romance Languages. Certain courses in Philosophy and Speech Communication may be substituted with the approval of the chairperson of the Comparative Literature Program. Students concentrating in comparative literature are strongly encouraged to acquire a working knowledge of a second foreign language, especially if they hope to pursue comparative literature on the graduate level.

A minor in comparative literature consists of 18 hours including Comparative Literature 201 and either Comparative Literature 401 or 402, 6 hours of literature in a foreign language in courses numbered 300 and above, and 6 hours of literature courses numbered 300 and above in a different department. These 6 hours may be either in English or a foreign language and should be chosen from the following departments: Classics, English, Germanic and Slavic Languages, Religious Studies, and Romance Languages. Certain Philosophy and Theatre courses may be substituted with the approval of the chairperson of the Comparative Literature Program. Minors in comparative literature are strongly encouraged to continue study of a foreign language beyond the minimum requirement.

LATIN-AMERICAN STUDIES

Chair:
Dr. Cynthia K. Duncan (Spanish)

The major concentration consists of two optional tracks: (1) General Studies or (2) Brazilian Studies. Each program requires 27 hours, of which 12 are in core courses, including Latin American Studies 401 and 402, three hours of either History 360 or 361, and three hours of an approved Spanish or Portuguese literature/culture course at either the 300 or 400 level. In addition to the core courses, the General Studies track will consist of fifteen hours selected from courses offered by three different participating departments. The Brazilian Studies track will consist of fifteen hours beyond the core courses including a minimum of six hours in UTK's Summer Study Program in Fortaleza, Brazil (or other programs in Brazil approved by the director of Latin American Studies) and up to nine hours of approved courses that focus on Brazil. Majors are strongly urged to take as a prerequisite Latin American Studies 251-252.

The minor consists of 18 hours including Latin American Studies 251-252, three hours of an approved Spanish or Portuguese literature/culture course at either the 300 or 400 level, and nine additional hours selected from courses offered by three different participating departments.

A practical working knowledge of Spanish or Portuguese is a prerequisite for majors and minors. All students are strongly encouraged to earn credit hours through UT Knoxville's Latin American Studies Abroad Program at the Federal University of Ceara in Fortaleza, Brazil. Other foreign study programs are also available for Brazil and Spanish-speaking Latin America.
LINGUISTICS

Chair: Dr. Chauncey J. Mellor (German)

This major concentration offers a broad exposure to the various fields of linguistics (including historical, descriptive, theoretical, and applied linguistics) along with an opportunity to study areas where linguistics overlaps with other disciplines such as psycholinguistics, sociolinguistics, and speech pathology. The program of study is designed to prepare a student for graduate work in linguistics or related areas or to serve as a general survey of language and linguistics. The program of study provides the additional opportunity of emphasizing the teaching of English as a second language for the student interested in language-related employment at the B.A. level.

Students should consult program advisors early in planning a Linguistics major or minor. Linguistics 200 is highly recommended. Audiology and Speech Pathology 305 should be taken as soon as possible. Other 300-level courses should, if possible, be completed before 400-level courses are begun.

Corequisites: (a) Completion of a third year of foreign language study (literature) which satisfies the Foreign Studies option to fulfill the upper-level distribution requirement (required); (b) A two-semester sequence of a non-indo-European language to be selected from the following: Asian Studies 121-122 (5.5) (Arabic); Asian Studies 131-132 (5.5) (Chinese); Asian Studies 141-142 (4.4) (Hebrew); Asian Studies 151-152 (6.5) (Japanese); Religious Studies 309-310 (3.3) (Hebrew); other non-indo-European language sequences approved by the Linguistics Committee (required).

The concentration shall consist of 30 hours distributed as follows: (a) 24 hours composed of Audiology and Speech Pathology 305 (3); English 371, 372, and 471 (3,3,3); French, German, Russian or Spanish 425-426 (3,3); and Linguistics 420-430 (3,3); and (b) 6 hours of the following, selected in consultation with the Linguistics Committee: Anthropology 411 (3); Audiology and Speech Pathology 320, 465, 579, (3,3,3); Educational Curriculum and Instruction 457 (3); Special Education and Rehabilitation 522 (3), 532-533 (3,3); English 371, 372, 472, 475, 486, 509-509, 680 (3 hours each); French 421, 422, 521-522 (3 hours each); German 435-436 (3,3), 571-572 (3,3); Linguistics 400 (3); Philosophy 479 (3); Psychology 431 (3 hours each); Spanish 421, 422, 531-532 (2,3,3,3); Theatre 426 (4). Other hours may be substituted in (b) by approval of the Linguistics Committee.

A minor in Linguistics shall consist of 18 credit hours composed of (1) either English 471 (3) or 3 hours from section (b) of the major, selected in consultation with the Linguistics Committee; and (2) 15 hours as follows: Audiology and Speech Pathology 305 (3); English 371 (3) or 372 (3); French, German, Russian or Spanish 425 (3) or 426 (3); and Linguistics 420-430 (3,3).

Note: In addition to the above listed courses for the concentration and the minor there are occasional offerings in the Honors Series or in graduate seminars which may be substituted for certain requirements subject to written approval of the Linguistics Committee and the Office of the Dean.

MEDEIVAL STUDIES

Chair: Dr. Paul Barrette (French)

A major concentration in Medieval Studies consists of Medieval Studies 201 and 403 and 21 hours of upper-division courses. The concentration is concerned primarily with the medieval experience, divided among the following three categories: (1) history, philosophy, political science, and religious studies; (2) language and literature; (3) art: 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 revolve around a particular discipline or two closely related disciplines (for example, courses in the history and art of 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.

Latin is the most appropriate language for students in the Medieval Studies concentration and is essential for those who plan to continue their studies in graduate school. In addition, students planning to go 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. Each student's program, major or minor, must be approved in advance by the Medieval Studies Coordinating Committee, chairperson Dr. Paul Barrette.

Category #1—History, Philosophy, and Political Science: History 312 Medieval History: 1000-1100 (3); History 313 Medieval History: 1100-1400 (3); History 300 History of England to 1808 (3); History 334 History of Germany to 1815 (3); History 399 History of the Middle East (3); History 474 Studies in Medieval and Early European History: Philosophy 322 Medieval Philosophy (3); and Political Science 475 Ancient and Medieval Political Thought (3).

Category #2—Language and Literature: Classics 435 Medieval Latin (3); English 371 Foundations of the English Language (3); English 401 Medieval Literature (3); English 402 Chaucer (3); French 410 Medieval French Literature (3); Italian 401 Dante and Medieval Culture (3); and Italian 402 Petrarch and Boccaccio (3).

Category #3—The Arts: Architecture 415 Seminar in Medieval Architecture (3); Art 371 Early Christian and Byzantine Art to 1350 (3); Art 372 Northern European Painting, 1350-1600 (3); Art 381 Medieval Art of the West, 800-1450 (3); Art 382 The Art of Italy, 1250-1400 (3); and Music History 210 History of Music to 1750 (3).

RUSSIAN AND EAST EUROPEAN STUDIES

Chair: Dr. Donald Frie (German and Slavic Languages)

The major concentration consists of 30 hours from the following: Geography 375, six hours from History 340-341, Philosophy 393, Political Science 459, and four additional hours from Political Science 466, 574; Russian 311-312; Russian and East European Studies 410, and additional hours in courses numbered 301 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, 255, 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. Curricular 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: Geography 365 Geography of Appalachia; Rural Sociology 380 Rural Sociology; Sociology 363 The City, 462 Population; and Transportation 302 Transportation Principles and Policies.

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 accomplishments. Women's Studies can broaden the education of both male and female students by helping them to understand the limitations placed on both sexes by narrowly defined sex roles. Wherever there is a need to understand women and an interest in the new role they are playing in society, Women's Studies can enhance a student's career preparation and opportunities.

The Women's Studies Program offers a wide variety of courses, some interdisciplinary in nature and others originating in supporting departments throughout the university. These courses may be taken as electives, they may be used to satisfy requirements in various
students will have the right to appeal their placement to the Mathematics Department. The exam will be administered during summer orientation and at designated times during the Fall, Spring, and Summer registration.

B.S. Major: Mathematics 141-142 (or the Honors version, 147-148) is prerequisite to a minor in Mathematics. A minor in Mathematics consists of (1) 241 and 251; (2) 221 or 231; and (3) nine additional hours in Mathematics courses numbered 300 or higher. The grade in each of the above courses must be at least C.

MEDIEVAL STUDIES
See Interdisciplinary Programs.

MEDICAL BIOLOGY/MEMORIAL RESEARCH CENTER
The Department of Medical Biology of The University of Tennessee College of Medicine-Knoxville Unit was formed from the faculty of the University Memorial Research Center and Hospital in 1978. The Research Center was established in 1956. The faculty has research, education, and service interests in cancer, blood diseases, metabolism, neuroscience, birth defects, cytogenetics and clinical genetics. Courses in these areas are offered to students at the graduate and undergraduate levels. Elective courses are also available to students in the College of Medicine. The faculty with the College of Veterinary Medicine participates in the graduate program leading to M.S. and Ph.D. degrees in Comparative and Experimental Medicine. Other advanced degree students can do thesis research in the department by arrangement with other life science departments at the University.

MICROBIOLOGY
Professors: Dwayne C. Savage (Head), Ph.D. California (Berkeley); R.W. Beck (Emeritus), Ph.D. Wisconsin; J.M. Becker, Ph.D. Cincinnati; D.M. Michigan State; T.C. Montle, Ph.D. Maryland; W.S. Riggsby, Ph.D. Yale; B.T. Rous; Ph.D. Citadel (Canada); B.V. Sc, B.S. England; G.S. Snyder, Ph.D. Idaho; Stacey, Ph.D. Texas (Austin); D.C. White (Distinguished Scientist), M.D. Tufts, Ph.D. Rockefeller; J.M. Woodward (Emeritus), Ph.D. Kansas; C.J. Wust, Ph.D. Indiana.

Associate Professor: R.N. Moore, Ph.D. Texas (Austin).


B.S. Major: Prerequisites are Biology 150 or 110-120, 210-220, Chemistry 120-130, and Mathematics 151-152 or 141-142, and Physics 221-222 or 231-232. The major consists of Chemistry 350-360-369, Biochemistry 410, Microbiology 310, 319, 320, 329, 12 additional hours of 400-level Microbiology courses. Honors B.S. Major: An honors major is offered to selected students who have achieved junior standing and have completed the required 300-level Microbiology courses with a minimum grade point average of 3.5 in Microbiology courses and 3.2 for all courses. In addition to these 300-level courses, an honors major

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; G.E. Albert (Emeritus), Ph.D. Wisconsin; N. Allakos, Ph.D. Brown, A. Alexiadou, Ph.D. Delaware; D.F. Andersson, Ph.D. Chicago; G.A. Baker, Ph.D. Cornell; J.S. Bradley (Emeritus), Ph.D. Iowa; J.H. Carruth, Ph.D. Louisiana State; C.E. Clark, Ph.D. Louisiana State; R.J. Daverman, Ph.D. Wisconsin; D.J. Dassart, Ph.D. Michigan; D.E. Dobbs, Ph.D. Cornell; G. Dydek, Ph.D. Warsow (Poland); H. Frandsen, Ph.D. Wisconsin, N. Glasstone, Ph.D. California Institute of Technology; K. Serbin, Ph.D. Cornell; Henry Simpson, Ph.D. Institute, Tullahoma, Ph.D. Texas.


Instructors: J.R. Biggs, Ph.D. Oxford, England; J.H. Carruth, Ph.D. Louisiana State; C.E. Clark, Ph.D. Louisiana State; R.J. Daverman, Ph.D. Wisconsin; D.J. Dassart, Ph.D. Michigan; D.E. Dobbs, Ph.D. Cornell; G. Dydek, Ph.D. Warsow (Poland); H. Frandsen, Ph.D. Wisconsin, N. Glasstone, Ph.D. California Institute of Technology; K. Serbin, Ph.D. Cornell; Henry Simpson, Ph.D. Institute, Tullahoma.

Assistant Professors: K.R. Kimble (Space Institute, Tullahoma, Ph.D. Ohio State; Y. Kuo, Ph.D. Cincinnati; S.M. Mulay, Ph.D. Cornell; G. Wenderoth, Ph.D. University of California, Berkeley).

Assistant Professor: S. Soni, Ph.D. Cornell; J. Villalane, Ph.D. New York.

B.S. Major: Prerequisites are Biology 150 or 110-120, 210-220, Chemistry 120-130, and Mathematics 151-152 or 141-142, and Physics 221-222 or 231-232. The major consists of Chemistry 350-360-369, Biochemistry 410, Microbiology 310, 319, 320, 329, 12 additional hours of 400-level Microbiology courses. Honors B.S. Major: An honors major is offered to selected students who have achieved junior standing and have completed the required 300-level Microbiology courses with a minimum grade point average of 3.5 in Microbiology courses and 3.2 for all courses. In addition to these 300-level courses, an honors major

colleges, or they may serve as a concentration in Women's Studies within an Interdisciplinary Program major or minor.

The major concentration in Women's Studies consists of 30 semester hours including one of the Images of Women in Literature courses (either 210 or 215), Women in Society (493), and at least one course from each of the three major areas: Women's Heritage (324, 380, 383, 432, 453, 466, 483), Contemporary Issues (375, 392, 410, 425, 434), and Literature and the Arts (330, 332, 422). As its content varies, 400 may be included in any of these areas. Students are encouraged to take at least nine hours in one of these areas.

The Women's Studies minor consists of one of the Images of Women in Literature courses (either 210 or 215), Women in Society (493), and at least one course from each of the three major areas: Women's Heritage (324, 380, 383, 432, 453, 466, 483), Contemporary Issues (375, 392, 410, 425, 434), and Literature and the Arts (330, 332, 422). As its content varies, 400 may be included in any of these areas. Students are encouraged to take at least nine hours in one of these areas.

See Interdisciplinary Programs.
College of Liberal Arts/Medical Technology

requires successful completion of 15 additional hours of 400-level Microbiology courses, including 401 and 402.

MEDICAL TECHNOLOGY

Courses in this major are open only to qualified students who have completed the first three years of the Science-Medical Technology Curriculum, described in the College of Liberal Arts curricula section of this catalog, and who have been approved by the Medical Technology Admissions Committee.

MUSIC

Professors:
Kenneth A. Keeling, Sr. (Head); D.M.A. Catholic University; C. H. Ball, Ph.D. Peabody; G. C. Bitzas, M.M. Converse; J. P. Brock, M.M. Alabama; W. J. Carter (Emeritus), D.M.A.

Associate Professors:

Assistant Professors:
D. Brown, Memphis State; T. S. Dubberly, D.M.A. Yale; M. M. Ehrman, B.S. Northwestern; W. W. Hawthorne, Ph.D. Cincinnati; C. Smith, B.M. SUNY.

In June of 1991, the merger of the Departments of Music and Music Education into a single unit within the College of Liberal Arts was 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; strings; woodwind, brass, and percussion instruments; multiple keyboard instruments; multiple woodwind instruments; studio music and jazz; string pedagogy). This study prepares students for graduate music study or for positions in music for which a professional music 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 must complete one year of each of two languages chosen from French, German and Italian. Students majoring in music history and literature must complete two years of either French or German.

ENSEMBLES

Ensemble participation during each semester of residence is required of all students studying applied music. String, woodwind, brass, and percussion students must meet the following ensemble requirements: (1) string students must participate in orchestra each semester; (2) woodwind, 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 ensemble; (3) vocal students must acquire a minimum of four credits in any of the following ensembles: Concert Choir, Chamber Singers, University Chorus, Women's Chorale.

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 Principal or Secondary.

Students studying their principal (major) instrument register for credit appropriate to their program, 2-4 credits. Students studying a secondary instrument register for 1-3 hours of credit. Study at the principal level receives one hour of private instruction per week or a one-hour class lesson plus a half-hour private lesson. Determination of the mode of instruction rests with the department. Study at the secondary level receives one-half hour private instruction per week or its equivalent in class instruction. Applied music courses do not permit non-credit registration nor may students elect non-conventional grading.

Non-music students will be accepted at the secondary level if they meet audition requirements established by area faculty (piano, voice, violin, etc.) and instruction time is available.

Students majoring in music are required to pass the Junior Music Examination, which must be taken concurrent with or subsequent to enrollment in Music Theory 220, 240 and Music History 220. The examination consists of three sections: ear training, music theory, and music history and is administered annually in April, on the second day of Fall registration, and in October. Students may retake once on the next scheduled date any sections of the examination they do not pass. Initially. Students should register to retake the examination only after substantial review of the materials failed. Appeals for additional testing must be presented to the Undergraduate Committee of the Department.

Students transferring into the Department as majors at the junior level or above are required to pass the examination.

Departmental study guides for all sections of the examination are available in the Department Office.

All music majors are required to register for Music General 200 - Solo Class. The requirements for this course are to attend scheduled concerts, recitals, master classes, repertoire, and small classes, and to perform at least once each semester as partial fulfillment of applied music credit requirements.

Applied Music Fees: $45 per semester for half-hour lesson (1 credit hour) $90 per semester for 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 terms in order to be accepted for 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 a major instrument 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 Chorus, Chamber Singers.

Bachelor of Arts Degree: The Department of Music offers curricula leading to the Bachelor of Arts degree with a 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

Prerequisites: Music Theory 110, 120 (6); Music Theory 130, 143 (6); 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 200 level or above (four semester minimum) (8); Music General 200 - 4 semester minimum (4); Music Ensemble (4); Music Theory 310 (3), 3 hours selected from: Music History 350, 380, 390.

Music Electives (9-3 hours) selected from:
Music History 460 (3); Music General 301 (0); Music Theory 493 or Music History 493 (3); Music General 411 (0), Total of 43-46 hours.

Music Minor (a) Concentration in Applied Music consists of 17 hours in courses numbered 200 and above, distributed as follows: Music History 200, 8 hours in applied music, and 6 hours in music electives. Prerequisites are Music General 100 or equivalent and two semesters of applied music study (Music Performance) at the 103-190 levels. (b) Concentration in Music History and Literature consists of 17 hours in courses numbered 200 and above, distributed as follows: Music History 200, 9 hours in Music History and literature courses, and 5 hours in music electives. Prerequisites are Music General 100 or equivalent and two semesters of applied music study at the 103-190 levels.
**B.M. Curriculum in Piano Pedagogy and Literature**

| Hours Credit | 
|--------------|---|
| **Freshman** | 
| English Composition | 6 |
| Music Theory 110, 120 | 6 |
| Music Theory 130, 140 | 2 |
| Music History 200 | 3 |
| Music Perf. 180 | 2 |
| *Foreign Language* | 6 |
| Music Ensemble 200 | 2 |
| Music General 200 | 2 |
| Electives | 3 |
| **Sophomore** | 
| Music Theory 210, 220 | 6 |
| Music Theory 230, 240 | 2 |
| Music History 210, 220 | 2 |
| Music Perf. 280 | 2 |
| Music Keyboard 340, 350 | 6 |
| Music Ensemble 390 | 2 |
| Music General 200 | 0 |
| Natural Science | 6 |
| **Junior** | 
| Music History 380 | 3 |
| Psychology 110 | 3 |
| Social Science | 3 |
| Music Theory 310 | 3 |
| Music Perf. 380 | 3 |
| Music Ensemble 399 | 2 |
| Music Keyboard 480 | 3 |
| Music General 301 | 0 |
| Music Keyboard 360, 370 | 6 |
| Electives | 3 |
| **Senior** | 
| Music Keyboard 220 | 1 |
| Music Keyboard 420, 430 | 6 |
| Music Perf. 480 | 2 |
| Music Ensemble 399 | 2 |
| Historical Studies | 6 |
| Music Electives | 5 |
| Music General 200 | 0 |
| Music General 401 | 0 |
| Music Keyboard 490-491 Internship | 4 |

**B.M. Curriculum in Stringed Instruments**

| Hours Credit | 
|--------------|---|
| **Freshman** | 
| English Composition 101, 102 | 6 |
| Music Theory 110, 120 | 6 |
| Music Theory 130, 140 | 2 |
| Music History 200 | 3 |
| Music Performance 155 or 190 | 6 |
| Music Ensemble | 2 |
| Music General 400 | 2 |
| *Foreign Language* | 6 |
| Music General 200 | 0 |
| **Sophomore** | 
| Music Theory 310 | 3 |
| Music Theory 320 | 3 |
| Music History 380 | 3 |
| Music Performance 300 level | 8 |
| Music Ensemble | 2 |
| Social Science | 6 |
| Natural Science | 3 |
| Music Electives | 3 |
| Music General 200 | 0 |
| Music General 301 | 0 |
| **Junior** | 
| Music Education 310 | 3 |
| Music Performance 400 level | 8 |
| Music Instrument 340, 350 | 6 |
| Music Ensemble | 2 |
| Historical Studies | 6 |
| Music General 200 | 0 |
| Music General 401 | 0 |
| Electives | 10 |

**B.M. Curriculum in Studio Music and Jazz**

| Hours Credit | 
|--------------|---|
| **Freshman** | 
| English Composition 101, 102 | 6 |
| Music Theory 110, 120 | 6 |
| Music Theory 130, 140 | 2 |
| Music History 200 | 3 |
| Music History 380 | 3 |
| Music Performance 300 level | 8 |
| Music Ensemble | 2 |
| Historical Studies | 6 |
| Music General 200 | 0 |
| Music General 401 | 0 |
| Electives | 7 |

**B.M. Curriculum in Theory/Composition**

| Hours Credit | 
|--------------|---|
| **Freshman** | 
| English Composition 101, 102 | 6 |
| Music Theory 110, 120 | 6 |
| Music Theory 130, 140 | 2 |
| Music History 200 | 3 |
| Music History 380 | 3 |
| Music Performance 300 level | 8 |
| Music Ensemble | 2 |
| Historical Studies | 6 |
| Music General 200 | 0 |
| Music General 401 | 0 |
| Electives | 10 |

**B.M. Curriculum in Sacred Music (Organ or Voice)**

| Hours Credit | 
|--------------|---|
| **Freshman** | 
| English Composition 101, 102 | 6 |
| Music Theory 110, 120 | 6 |
| Music Theory 130, 140 | 2 |
| Music History 200 | 3 |
| Music History 380 | 3 |
| Music Performance 300 level | 8 |
| Music Ensemble | 2 |
| Historical Studies | 6 |
| Music General 200 | 0 |
| Music General 401 | 0 |
| Electives | 10 |

1. *Must be chosen from French, German, or Italian.
2. Three hours from Humanities Arts (non-music), Literature, Philosophical Perspectives.

**Total: 130 hours**
Music Performance .............................................. 2  
Music Performance (100 level).............................................. 8  
Music Ensemble ......................................................... 2  
Music Keyboard 110, 120 .............................................. 2  
Music Keyboard 210, 220 .............................................. 2  
Music History 200 ....................................................... 3  
Music General 200 ....................................................... 0  

Sophomore  
Music Theory 210, 220 .............................................. 6  
Music Theory 230, 240 .............................................. 2  
Music History 210, 220 .............................................. 2  
Music Performance (200 level) .............................................. 6  
Music Ensemble ......................................................... 2  
Music Keyboard 210, 220 .............................................. 2  
Music History 200 ....................................................... 3  
Music General 200 ....................................................... 0  

Junior  
Music Theory 310 ....................................................... 3  
Music Performance 300 (level or above) ................................. 2  
Music Ensemble ......................................................... 2  
Music History 380 ....................................................... 3  
Area Literature and Pedagogy ............................................. 3  
Music General 200 ....................................................... 0  
Music General 301 ....................................................... 0  
Electives ................................................................. 3  

Senior  
Music Education 310 ..................................................... 3  
Music Electives ......................................................... 3  
Music Performance 400 (level or above) ................................. 2  
Music Ensemble ......................................................... 2  
Music General 200 ....................................................... 0  
Music General 401 ....................................................... 0  
Historical Studies ....................................................... 6  
Electives ................................................................. 6  

Total: 127 hours

Music Performance (100 level) .............................................. 8  
Music Ensemble ......................................................... 2  
Music Keyboard 110, 120 .............................................. 2  
Music Keyboard 210, 220 .............................................. 2  
Music History 200 ....................................................... 3  
Music General 200 ....................................................... 0  

Sophomore  
Music Theory 210, 220 .............................................. 6  
Music Theory 230, 240 .............................................. 2  
Music History 210, 220 .............................................. 2  
Music Performance (200 level) .............................................. 6  
Music Ensemble ......................................................... 2  
Music Keyboard 210, 220 .............................................. 2  
Music History 200 ....................................................... 3  
Music General 200 ....................................................... 0  

Junior  
Music Theory 310 ....................................................... 3  
Music Performance 300 (level or above) ................................. 2  
Music Ensemble ......................................................... 2  
Music History 380 ....................................................... 3  
Area Literature and Pedagogy ............................................. 3  
Music General 200 ....................................................... 0  
Music General 301 ....................................................... 0  
Electives ................................................................. 3  

Senior  
Music Education 310 ..................................................... 3  
Music Electives ......................................................... 3  
Music Performance 400 (level or above) ................................. 2  
Music Ensemble ......................................................... 2  
Music General 200 ....................................................... 0  
Music General 401 ....................................................... 0  
Historical Studies ....................................................... 6  
Electives ................................................................. 6  

Total: 133 hours

B.M. Curriculum in Voice

Freshman  
English 101, 102 ......................................................... 6  
Music Theory 110, 120 .............................................. 6  
Music History 200 ....................................................... 3  
Music Keyboard 110, 120 .............................................. 2  
Music Keyboard 210, 220 .............................................. 2  
Music Performance 400 (level or above) ................................. 2  
Music History 300 ....................................................... 1  
Music General 200 ....................................................... 0  

Sophomore  
Music Theory 210, 220 .............................................. 6  
Music Theory 230, 240 .............................................. 2  
Music History 210, 220 .............................................. 2  
Music Performance (200 level) .............................................. 6  
Music Ensemble ......................................................... 2  
Music Keyboard 210, 220 .............................................. 2  
Music History 200 ....................................................... 3  
Music General 200 ....................................................... 0  

Junior  
Music Education 310 ..................................................... 3  
Music Electives ......................................................... 3  
Music Performance 400 (level or above) ................................. 2  
Music Ensemble ......................................................... 2  
Music General 200 ....................................................... 0  
Music General 401 ....................................................... 0  
Historical Studies ....................................................... 6  
Electives ................................................................. 6  

Senior  
Music Education 310 ..................................................... 3  
Music Electives ......................................................... 3  
Music Performance 400 (level or above) ................................. 2  
Music Ensemble ......................................................... 2  
Music General 200 ....................................................... 0  
Music General 401 ....................................................... 0  
Historical Studies ....................................................... 6  
Electives ................................................................. 6  

Total: 127 hours

B.M. Curriculum in Woodwind, Brass and Percussion Instruments

Freshman  
English 101, 102 ......................................................... 6  
Music Theory 110, 120 .............................................. 6  
Music Theory 130, 140 .............................................. 6  
Music History 200 ....................................................... 3  
Music Keyboard 110, 120 .............................................. 2  
Music Keyboard 210, 220 .............................................. 2  
Music Performance 400 (level or above) ................................. 2  
Music History 300 ....................................................... 1  
Music General 200 ....................................................... 0  

Sophomore  
Music Theory 210, 220 .............................................. 6  
Music Theory 230, 240 .............................................. 2  
Music History 210, 220 .............................................. 2  
Music Performance (200 level) .............................................. 6  
Music Ensemble ......................................................... 2  
Music Keyboard 210, 220 .............................................. 2  
Music History 200 ....................................................... 3  
Music General 200 ....................................................... 0  

Junior  
Music Theory 310 ....................................................... 3  
Music Performance 300 (level or above) ................................. 2  
Music Ensemble ......................................................... 2  
Music History 380 ....................................................... 3  
Area Literature and Pedagogy ............................................. 3  
Music General 200 ....................................................... 0  
Music General 301 ....................................................... 0  
Electives ................................................................. 3  

Senior  
Music Education 310 ..................................................... 3  
Music Electives ......................................................... 3  
Music Performance 400 (level or above) ................................. 2  
Music Ensemble ......................................................... 2  
Music General 200 ....................................................... 0  
Music General 401 ....................................................... 0  
Historical Studies ....................................................... 6  
Electives ................................................................. 6  

Total: 133 hours

PHILOSOPHY

Professors:  

Associate Professors:  
J.O. Bennett, Ph.D. Tulane; S.M. Cohen, Ph.D. Northwestern; K.A. Bohstedt, Ph.D. Ohio State; M. Levin, Ph.D. Stanford; J.E. Noit, Ph.D. Ohio State; M.L. Osborne, Ph.D. Tennessee.

Assistants:  
F.E. Baylis, Ph.D. Western Ontario; H.P. Hamlin, Ph.D. Georgia; M. Lenz, Ph.D. Pennsylvania.

Major Prerequisite: Three hours of logic, normally 130 or 135. Requirements: 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, normally 324. Majors are required to discuss their program with a member of the Philosophy faculty.

Minor: 18 hours in courses numbered 200 or above. Minors should discuss their program with a member of the Philosophy faculty.
PHYSICS

B.S. 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 later in their careers. Students with special interests are encouraged to pursue those interests through research projects and/or independent study under the direction of members of the Physics faculty.

Prerequisites to the major are: Physics 137-138 and Mathematics 141-142.

The major consists of: 240, Mathematics 231 and 241, 311-312, 321, 361, 411-412, 431-432, and 461. Physics 401 is recommended, and 421 should be elected by students intending to pursue graduate studies in Physics. Total major hours: 41.

Minor: A minor in physics shall consist of Physics 137-138, 240, and twelve hours from Physics and Astronomy courses numbered 300 and above.

HONORS IN POLITICAL SCIENCE: The Honors concentration encourages highly motivated students to obtain a superior liberal education and more rigorous preparation in the discipline. Admission is selective. The Honors concentration is normally a two year program. Political Science 101 or 107, 102 and 201 are prerequisites to the major which consists of 27 hours: 387-388, 487-488, and 15 additional hours, which must include at least one course in each of the four areas of the discipline described below the B.A. major. Political Science 387 and 388 may be used to satisfy this requirement in the appropriate area. To graduate with Honors in Political Science, the student must have a minimum GPA of 3.3 in Political Science, and a minimum cumulative GPA of 3.0.

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 follow the concentration in Political Science. Political Science 101 or 107, 102 and 201 and Economics 201 are prerequisites to the major in Political Science with a concentration in Public Administration. Corequisite courses are Mathematics 121 and Mathematics 115 or Statistics 201 and Accounting 201 and 202. Majors must earn a "C" or better in prerequisite and corequisite courses. The concentration consists of 24 hours of upper division course work in Political Science and 12 hours of upper division course work in Economics. In Political Science, students must include one course in each of the four fields of Political Science: American Government and Politics/Public Administration, Comparative Government and Politics, International Relations, and Political Theory. Students must also take Economics 340, 440, 441 and 442. In Economics students must take Economics 311, 471, and 472. Students must also meet all eligibility requirements described above under the B.A. Major section.
RELIgIOUS STUDIES

Professors:
C.H. Reynolds (Head), Ph.D. Harvard; F.S. Lusby (Emeritus), M.Div. Colgate (Rochester); D.L. Dungan, Th.D. Harvard; W.L. Humphreys, Ph.D. Union; D.E. Linge, Ph.D. Vanderbilt; R.V. Norman, Jr. (Associate Vice Chancellor), Ph.D. Yale.

Associate Professors:
J.L. Fitzgerald, Ph.D. Chicago; R.W. Gwynne, Ph.D. Washington; R.J.I. Hackett, Ph.D. Aberdeen; J.O. Hodges, Ph.D. Chicago; Mark Hulseher, Ph.D. Minnesota; M.L. Levering, Ph.D. Harvard; Gerda Schmidt, Ph.D. Pittsburg.

Adjunct:
L.M. Tober, Ph.D. Vanderbilt.

Major: The basic concentration is designed to assure that students attain skills to analyze and interpret religious phenomena in different cultures and in different historical periods, including how sacred texts and traditions, and interpretations of critical reasoning, inform and are informed by religion. The basic concentration consists of at least 24 hours of religious studies courses at the 300 level or above, including 300, one course from the first six categories listed below, and two courses from category seven: (1) critical thinking about religion, 301, 305, 342, or 371; (2) religion and culture in South Asia, 374 or 376; (3) religion and culture in East Asia, 379 or 383; (4) the roots of western religion, 311, 321 or 322; (5) religions of traditional societies, 302 or 373; (6) religion and culture in the United States, 351 or 352; (7) two 400 level seminars on methods of interpreting religious phenomena, at least one of which must be 499. The remaining 3 hours which complete this major shall not include related language courses.

As an alternative to the basic concentration, a student-initiated concentration is available for students with special educational needs, such as those who intend to enter a graduate or professional school (seminary, law, medicine) which recommends a specific course of undergraduate study. A faculty member in Religious Studies will assist a student to formulate this major consisting of at least 27 hours of credit at the 300 level or above, including 300 and 499. Up to 9 hours in this major may be taken in approved courses from other programs or departments in the College of Liberal Arts. Students whose vocational goals would best be served by such a major must discuss this option with a faculty member in the department, who will submit any specific proposal to the faculty in religious studies for approval.

Further details on the major and on department courses are available in the department office, located in 501 McClung Tower, or from any member of the religious studies faculty.

Minor: Fifteen hours of courses at the 300 level or above, not including related language courses. It is recommended that students minoring in religious studies discuss their program with a member of the department faculty.

ROMANCE AND ASIAN LANGUAGES

Professors:
John B. Romelser (Head), Ph.D. Vanderbilt; P.E. Barrette, Ph.D. California (Berkeley); P. Brady, Ph.D. Universite de Paris (Sorbonne); C.W. Cobb, Ph.D. Tulane; B. Creet, Ph.D. California; J.C. Elliott (Emeritus), M.A. Illinois; W.H. Heflin, Jr., Ph.D. Florida; W.H. Heflin, Jr., Ph.D. Florida State; T.B. Irving (Emeritus), Ph.D. Princeton; F.D. Maurino (Emeritus), Ph.D. Columbia; C.R.M. Pinsky (Emeritus), Ph.D. California (Berkeley); M. Petrovska (Emeritus), Ph.D. Kentucky; Oscar Rivera-Rodas, Ph.D. California; A.M. Vazquez-Dige (Emeritus), Ph.D. Minnesota; A.H. Wallace (Emeritus), Ph.D. North Carolina; Y.M. Washburn, Ph.D. North Carolina.

Associate Professors:
E.J. Campion, Ph.D. Yale; R.M.E. DeRoche, Ph.D. Illinois; S. DiPuccio, Ph.D. Wisconsin; D.M. DiPuccio, Ph.D. Kansas; C.K. Duncan, Ph.D. Illinois; K.D. Levy, Ph.D. Kentucky.

Instructors:
A. McKeeny, M.A. Tulane; M.T. Rabot, Cert. de Langues.

French Major: Consists of 31 hours in courses numbered 311 and above. All majors must have the following courses (or their equivalent with consent of the department): 311-312, 313, 341 or 342 or 345; 421, 422, 440. Literature concentration students must also have 2 hours of literature at the 400 level. Literature concentration students must also have 5 hours of literature-oriented or civilization courses at the 300 or 400 levels. Language concentration students must also have 5 hours of language-oriented or civilization courses at the 300 or 400 levels.

French Minor: The minor consists of 18 hours in courses numbered 311 and above distributed accordingly: 311-312, 313, 341 or 342, 421, plus 3 hours of electives at the 300 or 400 level.

Italian Major: Consists of 27 hours in courses numbered 311 and above.

Italian Minor: Consists of 18 hours in courses numbered 311 or above. Students pursuing a minor must consult with a departmental advisor.

Portuguese Minor: Consists of 18 hours in courses numbered 300 or above. Students pursuing a minor must consult with a departmental advisor.

Spanish Major: Consists of 30 hours in courses numbered 323 or above. The following are required: 335, 336, 421, 422, 459. Students must also have a minimum of 3 hours of civilization, either 431 or 471; a minimum of 6 hours of conversation and composition from 323, 324, 423 or 424; and a minimum of 6 hours of literature from 342, 435, 436, 450, 451, 452, 461, 473, 474, 479. Majors are encouraged to take as many hours as possible, especially the surveys, 435, 436 and 473-474.

Spanish Minor: Consists of 18 hours in courses numbered 323 or above, including 335 and 336; 422; one course in conversation and composition from among the following: 323, 324, 423, 424; and the remaining courses to be chosen among conversation and composition, civilization, phonetics, or literature. Students pursuing a minor are strongly advised to consult with a departmental advisor.

Major in French, Italian, Japanese, Portuguese, or Spanish with a Concentration in Language and World Business: Students who wish to prepare for careers in international business may complete (a) a special language major in either French, Italian, Japanese, Portuguese or Spanish, (b) a professional emphasis in either International Business or International Logistics and Transportation, and (c) some form of practical experience related to the concentration. Admission is by permission of the program director.

(a) The Special Language Major:
(1) The French major consists of 33 hours. The following are required: French 199, 311-12, 313, 341, 345, 400, 422, 432, 440, and 3 hours of 491 or 493.
(2) The Italian major consists of 29 hours. The following are required: Italian 199, 311-12, 341, 342, 401, or 491, and 9 hours of any 400-level literature courses.
(3) The Japanese major consists of 32 hours. The following are required: Japanese 199, 251-252, 351-352, 490 or 491, and 9 hours from the following: Art 386, Asian Studies 102 or 471 (if related to Japan), History 365, Japanese 313 or 314, Religious Studies 383.
(4) The Portuguese major consists of 32 hours. The following are required: Portuguese 199, 301-302, 309, 409, three hours of an approved Spanish or Portuguese literature course at the 300 or 400 level, six hours of 490 or 499 as approved by the director of the program.
(5) The Spanish major consists of 32 hours. The following are required: Spanish 199, 311-12, 323, 345, 422, 423, 431 or 471, 459, three hours of 490 or 491 and any 400-level literature course.

(b) The Professional Emphasis:
(1) International Business students will take 25 hours. The following are required: Accounting 201, Economics 201 or 207, Business Administration 311 and 495, Management 471, Logistics and Transportation 441, and an elective from a related business area chosen in consultation with an advisor.
(2) International Logistics and Transportation students will take 25 hours. The following are required: Accounting 201, Economics 201 or 207, Business Administration 311 and 495, Management 471, and Logistics and Transportation 401, 302, and 441.
(3) Practical experience: Through French 490, Italian 490, Japanese 490, Portuguese 490, or Spanish 490, each Language and World Business student must undertake study abroad, an internship, or a relevant research project, for a minimum of 3 hours (included in major requirements). Additionally, Language and World Business students must consult an advisor in the Department of Romance and Asian Languages for help in selecting relevant
courses under the Basic Skills and Distribution requirements of the College.

Students interested in the Language and World Business program should contact the Director for advising as early as possible in their college careers. Students must have attempted 45 hours in order to be considered for progression to the major. The academic record presented will be assessed by the Director of Language and World Business. Minimum requirements for progression to the concentration are a 2.75 cumulative average in the courses specifically required by the College of Liberal Arts in Basic Skills and Distribution and the Language and World Business plan of studies, and a 3.0 average in Language courses. Progression is based on availability of space in the program. Progression standards are adjusted periodically, and current requirements are available from the Director of the Language and World Business Program. For further information, inquire in T-1298 McClung Tower.

Placement Examination: Students who have had two or more years' work in French, Italian, or Spanish in high school or one year's work in another college should register in French, Italian, or Spanish 211. During the first week of the semester a placement test will be given, and students will be advised if a change in registration is indicated.

Proficiency Examinations: Students who have acquired a knowledge of French, Italian, or Spanish through private study, tutoring, residence in foreign countries, or the like should initiate a request for a proficiency test in the Office of the Dean of Admissions and Records. A student earning a grade of C or better on such a test will receive credit for a limited number of courses. Superior students are encouraged to proceed as rapidly as their achievement permits.

Study Abroad. Four summer study abroad opportunities are available to students through the Department of Romance Languages. The department sponsors programs in Brazil (Fortaleza), France (Lille), Italy (Urbino), and Mexico. Students participate for up to six credit hours by participating in these programs. In most cases, the courses will fulfill part or all of the foreign language requirement (completion of the elementary or intermediate level). Upper division classes in literature, culture, and language are also available for major and minor credit. Participation in these programs will satisfy the foreign study requirements for the Language and World Business degree. A faculty member accompanies students on the program. In addition to formal classes held at a major university in the city, group excursions to cultural and historical sites are an integral part of the programs. For more information concerning prerequisites, lodging arrangements, costs, and dates of an individual program, contact the Department of Romance and Asian Languages, 601 McClung Tower.

RUSSIAN

See Germanic and Slavic Languages.

RUSSIAN AND EAST EUROPEAN STUDIES

See Interdisciplinary Programs.

SOCIOLoGY

Professors:
D.M. Beitz, Ph.D. Michigan State; J.M. Black, Ph.D. Iowa; D. Clelland, Ph.D. Michigan State; D.W. Hastings, Ph.D. Massachusetts; T.C. Hood, Ph.D. Duke; D.R. Ploch, Ph.D. North Carolina; E. Shevar, Ph.D. Illinois (Urbana); S.E. Wallace, Ph.D. Minnesota.

Associate Professors:
M.L. Benson (Head) Ph.D. Illinois; S. Cable, Ph.D. Pennsylvania State; J.P. Gaventa, Ph.D. Oxford (England); S. Kurth, Ph.D. Illinois (Chicago); R.G. Perrin, Ph.D. British Columbia.

Assistant Professor:
A. Jalata, Ph.D. SUNY-Binghamton.

Instructor:
D.K. Harris, M.A. Tennessee.

Major: Prerequisites to the major are six lower-division hours in sociology which must include either 100 or 110, followed by 200. The major consists of 24 upper-division hours in sociology and must include 321 and 331. Students should complete these two courses by the end of their junior year.

Minor: The minor consists of 12 upper-division hours in sociology and must include 321 and 331. Prerequisites to the minor are six lower-division hours in sociology which must include 200.

Concentration in Criminal Justice: All prerequisites and upper-division courses required for general majors are required for this concentration. In addition, the concentration consists of 18 hours of upper-division sociology as follows: 350, 351, 451, either 455, 459, or 492, and two courses selected in consultation with advisor.

Concentration in Environment and Society: All prerequisites required for the major are required for this concentration. An additional prerequisite is either Sociology 101 and 103; or 202 plus Geology 101 or 103; or Botany 201 and 203. The Concentration in Environment and Society consists of 321 (Sociological Theory) and 331 (Sociological Research) and eighteen hours of upper-division sociology courses as follows: 344 or 345, 350, 442, 446 and two courses selected in consultation with advisor.

Minor with Concentration in Environment and Society: Prerequisite to the minor is Sociology 101 or 103. The minor consists of 200, 321, 331, 380 and a choice from 347, 343, 442, 446 and 464.

COLLEGE SCHOLARS HONORS

Director:
Dr. Harry C. Jacobson

College Scholars is 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, scholarship or creative imagination. College Scholars 498 is the appropriate course to use to receive credit for this work.

SPANISH

See Romance Languages.

SPEECH COMMUNICATION

Professors:
F.D. Julian (Head), Ph.D. Tennessee; L.W. Laster, Ed.D. Tennessee; A.G. Yeomans (Emeritus), Ph.D. Louisiana State.

Associate Professors:
M.L. Ambrose, Ph.D. Ohio; J.E. Buckley, Ph.D. Northwestern; N.C. Cook, M.A. Alabama; R.W. Glenn, Ph.D. Northwestern.

Assistant Professor:
R.S. Ambler, Ph.D. Ohio State; C.L. Arnold, Ph.D. Florida; J.W. Haas, Ph.D. Kentucky.

Major: Speech Communication 100 and one course in quantitative analysis (e.g., Speech Communication 255, Math 115, Statistics 201, or the equivalent) are prerequisite to a major which consists of 310, 350, 390, 499, and one course from each of the following two categories: (1) 210, 270, or 280; (2) 300, 320, or 330. An additional 12 hours in Speech Communication courses are required, six of which must be at the 400 level, and no more than three at the 200 level. No more than three hours from Speech Communication 445, 491, 492, 493 may be counted toward the major. Students should inquire in the Department Office for information and recommended advisors.

Minor: Speech Communication 100 is prerequisite to a minor which consists of 12 additional hours of Speech Communication courses at least 12 of which must be at the 300 level and above. No more than 3 hours from Speech Communication 446, 491, 492, 493 may be counted toward the minor.

STATISTICS

See faculty list in the College of Business Administration.

Liberal Arts students may major or minor in statistics under the supervision of the faculty of the Statistics Department in the College of Business Administration. The major is designed to prepare students for graduate studies in statistics or for professional work in various applications of statistical methods, including applications in the natural and social sciences, business and industry. Contact the Statistics Department for further information on careers in statistics and appropriate courses to take.

It is highly recommended that a student majoring in statistics have a minor in an area of application.

Major: (a) Required courses consist of 25 hours from Mathematics 241, 251; Statistics 251, 252, 261, Statistics 461, 462, Statistics 471 or Mathematics 323; (b) Statistics elective consists of 3 hours from upper-division statistics courses not listed in part (a); (c) Electives consist of 6 hours to be selected from two of the following groups: Computer Science 111, 112; Industrial Engineering 301, 402, 406; Management 481; Mathematics 371, 421, 423, 425, 453 (other quantitative courses may be substituted as Electives with the faculty advisor's approval).

College of Liberal Arts/Russian
Minor: (a) Required courses consist of 16 hours from Mathematics 241, 251; Statistics 251, 252, 261; and (b) Statistics electives consist of 3 hours from upper-division statistics courses not in part (a) of the minor.

THEATRE

Professors: T.P. Cooke, Ph.D. Florida State; R.M. Cothran Jr.; M. Custer, M.F.A. Wisconsin; R.C. Field, M.A. Miami (Ohio); A.J. Harris, Ed.D. Tennessee; R.R. Mashburn, Ph.D. Florida State; P.L. Soper (Emeritus), Ph.D. Cornell.


Major: Theatre 100 is a prerequisite to a major which consists of 220, 245, 250, 260, 310, 311, 312 and 430; and 12 additional hours of Theatre courses numbered 200 and above, 3 of which may be in cognate areas approved by the Department. At least one half of the hours in the major must be at the 300 level or above. No more than 6 hours of Theatre 481, 482, 483, 484, or 485 may apply to the major. Students majoring in Theatre should elect a literature package which includes English 252 to satisfy the College's Humanities Part 1 Divisional Distribution requirement.

Minor: Theatre 100 is a prerequisite to a minor which consists of: 220, 430, 6 hours in Theatre history and criticism and 6 additional hours of Theatre courses.

General requirements for the master's degree are given in the Graduate Catalog.

URBAN STUDIES

See Interdisciplinary Programs.

WOMEN'S STUDIES

See Interdisciplinary Programs.

ZOOGOLOGY

Professors: A.C. Echternacht (Head), Ph.D. Kansas; R.M. Bagby, Ph.D. Illinois; D.L. Bunting, II, Ph.D. Oklahoma State; J.G. Carlson (Emeritus), Ph.D. Pennsylvania; T.T. Chen, Ph.D. Florida (Eng); D.A. Cetner, Ph.D. Minnesota; M.A. Handel, Ph.D. Kansas State; B. Hochman (Emeritus), Ph.D. California (Berkeley); K.W. Jeon, Ph.D. London (England); D.C. Joy (Distinguished Scientist, Science Alliance Center of Excellence), Ph.D. Oxford (England); J.R. Kennedy, Ph.D. Iowa; J.N. Liles (Emeritus), Ph.D. Ohio State; J.A. MacCabe, Ph.D. California (Davis); G.F. McCracken, Ph.D. Cornell; S.L. Pimm, Ph.D. New Mexico State; S.E. Riechert, Ph.D. Wisconsin; L.E. Roth, Ph.D. Chicago; C.A. Shivers, Ph.D. Michigan State; G.L. Vaughan, Ph.D. Duke; H.G. Welch (Emeritus), Ph.D. Florida; G.L. Whiston, Ph.D. Iowa.

Associate Professors: K.D. Burnham (Emeritus), Ph.D. Iowa; J. Drake, Ph.D. Purdue; D.J. Fox, Ph.D. Johns Hopkins; R. Ganguly, Ph.D. Nebraska; N.B. Greenberg, Ph.D. Rutgers; B.D. McKee, Ph.D. Michigan State; M.L. Pan, Ph.D. Pennsylvania.

Assistant Professors: C. Bovake, Ph.D. Cornell; J.L. Gittleman, Ph.D. Sussex (Brighton, England); J.C. Hall, Ph.D. Illinois.

Research Associate Professor: R. Tindall, Ph.D. Pennsylvania State.

Prerequisites to upper division courses: Biology 110-120 or Zoology 117-118 are prerequisites for all upper division courses (with the exception of 480). Additional prerequisites are included with course descriptions.

Major: Prerequisites to the major are Biology 110-120 or Zoology 117-118 and Chemistry 120-130. Corequisites are Mathematics 121-122 or 151-152 or 141-142 and a year sequence in physics (except 141-142). Physics 221-222 are recommended and are required for admission to some professional schools.

The major consists of Biology 210-220-230, 18 hours of upper division Zoology courses and two semesters of chemistry or biochemistry at the 200 level or above. (Acceptable second year chemistry sequences include: Chemistry 350-360-369; Chemistry 350 and 310-319; Chemistry 350 and Nutrition 200; Chemistry 350, 431 and Biochemistry 310; Chemistry 310-319 and Biochemistry 310). All Zoology majors are required to take at least 4 hours at the 400 level, including at least one laboratory or field course. The upper division Zoology courses must include at least one course from three of the following four areas: (1) Cellular and Developmental Biology (330, 420); (2) Physiology (440, 445); (3) Animal Diversity (350, 360); and (4) Evolution and Behavior (450, 460).

Minor: Prerequisites to the minor are Biology 110-120 or Zoology 117-118 and Chemistry 120-130 or 100-110. The minor consists of Biology 210-220-230 and 9 hours of upper division Zoology.

Honors in Zoology: An Honors major in Zoology must fulfill all of the requirements for the B.S. degree in Zoology, and take 302 and 409 during the junior year, four hours of 400 during the junior and senior years, and a senior thesis (Zoology 401) the last semester of the senior year. All prospective juniors who are declared Zoology majors with a minimum overall GPA of 3.2 in the major and prerequisite and corequisite courses are invited to apply. To remain in the program, the student must maintain a GPA of 3.2 in the major. Students interested in the Honors degree should consult with the department's Honors Coordinator.

Note: Certain Zoology courses require organic chemistry or other prerequisites; consult the catalog description for each course.

Many courses in this department are offered only in specific semesters. Students should plan in advance the proper sequence. Information on the semesters a course is to be offered is available in the departmental office.