The College of Arts and Sciences is home to a wide array of academic disciplines and inter-disciplinary programs. Such diverse areas of study as Computer Science and Classics, Anthropology, 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. 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.

Arts and Sciences 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 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 Arts and Sciences 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 Arts and Sciences 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 Arts and Sciences faculty in a research University.

The College of Arts and Sciences faculty in a research University. The great universities of the world are so labeled because their faculties have earned the reputation of being renowned scholars. The University of Tennessee 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 Arts and Sciences 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 Arts and Sciences 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 Arts and Sciences faculty in a research University.

The faculty of the College of Arts and Sciences 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 Arts and Sciences faculty in a research University.

The faculty of the College of Arts and Sciences 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 Arts and Sciences faculty in a research University.

The faculty of the College of Arts and Sciences 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 Arts and Sciences faculty in a research University.

The faculty of the College of Arts and Sciences 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 Arts and Sciences faculty in a research University.

The faculty of the College of Arts and Sciences 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 Arts and Sciences faculty in a research University.

The faculty of the College of Arts and Sciences 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 Arts and Sciences faculty in a research University.

The faculty of the College of Arts and Sciences 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 Arts and Sciences faculty in a research University.
admission to the University of Tennessee may count all of these hours toward graduation but may not elect additional S/NC hours.
5. A transfer student with S/NC or equivalent credit earned prior to admission to the University of Tennessee in a course which satisfies a Basic Skills or distribution requirement may count it for that purpose. In the case of a course which satisfies a major or minor requirement, statement (1) applies.

The option of taking courses on a S/NC basis is provided to encourage the able student to venture beyond the limits of those courses in which the student does well and, motivated by intellectual curiosity, to explore subject matter in which performance may be somewhat less outstanding that work in preferred subject fields.

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

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 made 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 members and the departments concerned prior to embarking upon their study. Credit per semester will vary from 1-15 hours. Up to 21 hours of credit earned in this way may be applied toward a degree in the college, although individual departments may limit the number of hours which may be applied toward a specific major.

STUDY ABROAD AND FOREIGN STUDY COURSES
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 students with approval may enroll for credit. Assistance in identification of and registration in such programs may be obtained through the Programs Abroad Office located in the University’s Center for International Education. A third opportunity is through individualized programs that students may arrange under number 491. The nature of this work as well as credit for it should be negotiated by students prior to departure with the appropriate Arts and Sciences 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.

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 plus programs in business and Arts and Sciences or the elementary and secondary pre-teaching programs. Students in the 3+2 business and Arts and Sciences program take three years of coursework leading to a B.A. in Arts and Sciences, 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+1 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 Arts and Sciences 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 School of Art.)

4. BACHELOR OF MUSIC
(See School of Music.)

REQUIREMENTS FOR DEGREES
To earn a Bachelor of Arts or Bachelor of Science degree these requirements must be completed:
1. All University degree requirements as described in the section on “Academic Policies and Regulations: General Requirements for a Bachelor’s Degree;”
2. A minimum of 124 credit hours;
3. At least 42 credit hours in courses numbered 300 or above;
4. Appropriate work to satisfy basic skill and distribution requirements, counting no course in more than one area. (This is not a requirement in the College Scholars Program);
5. Completion of at least one major (24-40 credits at 200 level or above for B.S. major and 24-37 credits at 200 level or above for B.A. majors); up to 6 hours in the major may be used, where listed, to satisfy basic skills or distribution requirements. Courses used for the major may not be used to satisfy upper level distribution requirements.

Students may choose to develop one or more minors (minimum 15 hours at the 200 level and above); and

Students may take up to 20 hours of courses graded Satisfactory/No Credit in an 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 REQUIREMENTS
All students who earn a degree in the College of Arts and Sciences must have demonstrated skill in the use of the English language, the ability to acquire another language, and the ability to use the tools of quantitative analysis or formal logic. The specific requirements are as follows:
1. English Composition
   Skills necessary to write persuasive, logical and coherent essays in English; to read critically texts from a variety of media; to evaluate and cite sources in research; and to be aware of how to write for different audiences and purposes.

   Students may meet this requirement in one of two ways:
   a. By completing six credits in English writing courses, either: (a) English 101 and 102 (English Composition); (b) English 118 (Honor’s: English Composition) and English 102 (English Composition); (c) English 131 and 132 (Composition for Non-Native Speakers of English). [Students who obtain a grade of A or B in 118 may complete their freshman requirement with 102, or with a sophomore literature course in the English Department, or English 355 Rhetoric and Writing. The sophomore literature course may (if so listed) also be used]
toward the Humanities distribution requirement.)

b. By earning a score of 4 or 5 on the College Board Advanced Placement Test in Literature and Composition. (Credit in English 101 is earned with a score of 4 or 5 on the Advanced Placement Test in Language and Composition.)

- Placement information: Eligibility for English 118 (Honors: English Composition) will be determined by 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 English courses numbered 200 or higher.

2. Foreign Language

Skills necessary to learn the basic structures and vocabulary of a foreign language; to read, write, understand, and, for modern languages, speak a foreign language; to understand how to learn another language; to better understand one's own native language; and to complement the study of other cultures or civilizations.

Students may meet this requirement in one of three ways:

a. Completion of the intermediate level sequence of a foreign language. Any one of the following sequences will satisfy the requirement:

- Asian Languages 231-232 Intermediate Chinese I, II
- Asian Languages 251-252 Intermediate Japanese I, II
- Asian Studies 221-222 Intermediate Modern Standard Arabic I, II
- Asian Studies 241-242 Intermediate Modern Hebrew I, II
- Asian Studies 261-262 Intermediate Persian I, II
- French 211-212 Intermediate French or 217-218 Honors: Intermediate French
- German 201-202 Intermediate German
- Greek (Classics) 261 Intermediate Greek: Grammar Review and Readings and 264 Intermediate Readings in Greek
- Italian 211-212 Intermediate Italian
- Portuguese 211-212 Intermediate Portuguese
- Russian 201-202 Intermediate Russian
- Spanish 211-212 Intermediate Spanish;

b. Demonstration of competence on a departmental placement or proficiency examination or by AP or CLEP credit.

c. Students whose native language is not English may satisfy the requirement with English 131 and 132 and any two courses from List A: Literature under the Humanities Distribution Requirements.

b. Demonstration of competence on a departmental placement or proficiency examination or by AP or CLEP credit.

c. Students whose native language is not English may satisfy the requirement with English 131 and 132 and any two courses from List A: Literature under the Humanities Distribution Requirements.

| Placement information: All students who wish to enroll in a French, German, Latin or Spanish course, who have completed at least two years of this language in high school and who have not yet taken a college course in the language must take a UTK placement examination before enrolling. Placement in the appropriate course will be determined by the score on the examination. Examinations will be given during summer orientation and at designated times during the fall, spring and summer. Students who place into 200 level courses will receive six hours of elementary language credit, provided that they do not subsequently enroll and receive credit for any 100 level course in the same language. If they do, elementary placement credit is forfeited and removed from the student's transcript. Students who place into 300 level courses will receive six hours of intermediate language credit. Under no circumstances may any student earn more than six hours of language placement examination credit. Students who feel they have been inappropriately placed should consult the appropriate language section.]


Skills in Mathematics, formal reasoning and computing required for estimation and calculation, understanding logical processes, critical analysis, problem solving and decision making.

Students may meet this requirement by completion of one of the following courses or by selecting two math courses under Natural Science List B:

- Any course in Mathematics numbered 110 or higher
- Computer Science 100: Introduction to Computers and Computing
- Philosophy 130: Critical Thinking or Philosophy 135: Formal Logic.

DISTRIBUTION REQUIREMENTS

All of these requirements are designed to enhance the skills of thinking critically and analytically, and of effective communication and writing through the use and the understanding of different kinds of human knowledge. The distribution requirements are in two parts. Part A: Divisional Distribution Requirements, which require students to take courses in the various divisions of the College, and Part B: the Upper-Level Distribution Requirements.

PART A: DIVISIONAL DISTRIBUTION REQUIREMENTS

1. NATURAL SCIENCE

A two-course laboratory sequence and an additional two-course sequence that will introduce students to the increasingly important role of science and technology in all aspects of modern life. This requirement will introduce students to the basic discoveries, knowledge and logical organization of scientific disciplines and to development and testing of hypotheses. Laboratory courses will develop skills in experimental tests of hypotheses; lectures will introduce students to the role of scientific methodology and problem-solving in society. Students may meet this requirement by completion of a two-course sequence from list A and an additional two-course sequence or package from List A or List B.

List A:

- Astronomy 161-162: Introductory Astronomy with Laboratory
- Astronomy 217-218: Honors: Introductory Astronomy
- Biology 101-102: Human kind in a Biotic World
- Biology 130: Biodiversity and 140: Organization and Function of the Cell
- Botany 110-120 General Botany
- Chemistry 100: Principles of Chemistry and 110: Introduction to Organic and Biochemistry
- Chemistry 128-136: Honors: General Chemistry
- Geography 131-132: Geography of the Natural Environment
- Geology 101: The Dynamic Earth and either 102: Earth, Life and Time or 103: The Earth's Environments


[Students who earn an A in 101 or a B or better in 107 may take 108, all other students should complete the sequence with 102 or 103.]

- Physics 135-136: Introduction to Physics for Physical Science and Mathematics Majors
- Physics 137-138: Honors: Fundamentals of Physics for Physics Majors
- Physics 221-222: Elements of Physics

List B:

- Anthropology 110: Human Origins and 210: Principles of Biological Anthropology
- Astronomy 151-152: Introductory Astronomy
- Botany 306: Genetics and Society (Same as Anthropology 306) and 309: Biology of Human Affairs or 310: Plant Morphology or 330 Field Botany
- Chemistry 150: Chemistry and Society and Chemistry 160: Chemistry and the Home
- Computer Science 102: Introduction to Computer Science and either 140: Data Structures or 160: Computer Organization
- Geology 201: Biodiversity: Past, Present, and Future and 202: Earth as an Ecosystem: Modern Problems and Solutions or 201 and 203: Geology of National Parks or 202 and 203 Mathematics: Any two Mathematics courses numbered 110 or higher
- Microbiology 210: General Microbiology and Biochemistry, Cellular and Molecular Biology 230: Human Physiology
- Physics 101-102: How Things Work
- Statistics 201: Introduction to Statistics and any Mathematics course numbered 110 or higher except Mathematics 115 (If Mathematics 115 is used to satisfy Basic Skills or Natural Science requirements, Statistics 201 may not be selected to meet this requirement.)

PART B: THE UPPER-LEVEL DISTRIBUTION REQUIREMENTS

2. SOCIAL SCIENCE

Courses that will introduce students to the idea of individuals in societies, to perspectives and methods used by social scientists, and to the uses of these perspectives and methods in thinking about current social, economic and political issues and problems. Bachelor of Arts students may meet this requirement by completion of four courses selected from the list below. These courses must be from two departments. Bachelor of Science students must complete two courses from at least two departments.

- 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 201: Introductory Economics: A Survey Course; 207: Honors Introductory Economics
- Human Services 220: Introduction to Human Services
- Linguistics 200: Language, Linguistics and Society
- Music History 310: Introduction to African American Music (Same as African and African-
American Studies 310; 290: Introduction to World Music
Psychoeducational Studies 210: Psychoeducational Issues in Human Development
Psychology 110: General Psychology; 117: Honors General Psychology; 220: Behavior and Experience: Humanistic Psychology; 360: Social Psychology
Speech Communication 100: Introduction to Speech Communication; 220: Interpersonal Communication; 260: Communication and Society; 330: Group Communication
Women's Studies 220: Women in Society; Women's Studies 375 Gender in Society

3. HUMANITIES

Courses that will provide skills to appreciate and interpret literary, philosophical, or religious texts, and to participate as an appreciative observer or artist in a discipline within the visual, spatial, musical, theatrical, or written arts.

Bachelor of Arts students must meet this requirement by completion of three courses, of which at least one must be selected from List A and one from List B. Bachelor of Science students must complete a minimum of 6 credits from the courses listed; not more than 3 credits may be taken from List C. All courses except those involving practice of the arts are writing-emphasis courses.

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.

List A: Literature
Asian Languages 311: Chinese Literature in English Translation; 312: Chinese Literature in English Translation; 313: Japanese Literature in English Translation; 314: Japanese Literature in English Translation
Classics 253: Greek Literature in English Translation
Comparative Literature 202: Crosscultural Perspectives in World Literature; 203: Crosscultural Perspectives in World Literature
Information Sciences 330: Books and Related Materials for Children
Italian 401: Dante and Medieval Culture; 402: Petrarch and Boccaccio

Medieval Studies 261: Medieval Culture: Readings from the Early Middle Ages, 500-1000; 262: Medieval Culture: Readings from the Later Middle Ages, 1000-1500
Religious Studies 312: Religious Aspects of Biblical and Classical Literature; 313: Religious Aspects of Modern Literature
Russian 221: Rebels, Dreamers, and Fools: The Outcast in 19th Century Russian Literature; 222: Heaven or Hell: Utopias and Dystopias in 20th Century Russian Literature
Spanish 291: Spanish Literature in English Translation

List B: Philosophical and Religious Thought
Classics 201: Introduction to Classical Civilization; 221: Early Greek Mythology; 222: Classical Greek and Roman Mythology
English 293: Introduction to the Human Condition: Values and Reality; 111: The Human Condition: Knowledge and Reality; 240: Ethics; 342: Business Ethics; 344: Professional Responsibility (Same as Religious Studies 344); 345: Medical Ethics (Same as Religious Studies 345); 346: Environmental Ethics; 347: War and Morality; 380: The Concept of Woman (Same as Women's Studies 380); 382: Philosophy of Feminism (Same as Women's Studies 382)

List C: Study or Practice of the Arts
Architecture 111: Architecture and the Built Environment
Art 191: Introduction to Studio Art: Various Media
Classics 232: Archaeology and Art of Ancient Greece; 233: Archaeology and Art of Etruria and Rome
Speech Communication 280: Introduction to Oral Interpretation
Theatre 100: Introduction to Theatre; 220: Acting; 245: Basic Stage Costuming; 250: Introduction to Scenery Technology; 280: Fundamentals of Lighting and Sound Production
Women's Studies 330: Women in Music (Same as Music History 330)

4. NON-U.S. HISTORY

A course sequence to enhance appreciation of the diversity of the world's societies, their cultures, and histories. This requirement will contribute to skills in explaining change and continuity of human society and the interpretation of people, events and trends in context of the ideas, values, social and political conditions that affect them.

Students may meet this requirement by completion of one of the following sequences. All courses are writing-emphasis courses.

African and African-American Studies
Latin American Studies 251-252: Introduction to Latin American Studies
Medieval Studies 201-202: Medieval Civilization

PART B: UPPER LEVEL DISTRIBUTION REQUIREMENTS

Courses that use skills and knowledge acquired in the Basic Skills and Divisional Distribution areas to understand and analyze a highly interdependent world system and to make informed comparisons among contemporary cultures. These courses develop understanding of U.S., society, occupational and international diversity, and of critical issues of the modern world.

Bachelor of Arts students may meet this requirement by completion of two courses from one of the lists below and a third course from either of the other lists. Bachelor of Science students must complete two courses from two of the three lists. All courses are writing-emphasis courses.

List A: United States Studies
American Studies 310: Introduction to American Studies
Ecology and Evolutionary Biology 305: Evolution and Society (Same as Anthropology 305); Economics 413: Macroeconomic Fluctuations; 435: Industrial Organization Analysis; 462: Economics of Resources and Environmental Policy; 471: Public Finance: Optimal Government Functions and Expenditure Analysis; 472: Public Finance: Taxation and Intergovernmental Relations
English 331: Race and Ethnicity in American Literature; 332: Women in American Literature (Same as Women's Studies 332); 333: Black American Literature and Aesthetics; 334: Film and American Culture (Same as American Studies 334)
Geography 361: Regional Geography of the United States (Same as Geography 363); Geography of the American South; 365: Geography of Appalachia; 423: Geography of American Popular Culture (Same as American Studies 423); 425: Historical Geography of the United States; 441: Urban Geography of the United States; 443: Rural Geography of the United States
Geology 202: Introduction to National Parks; 381: Minerals and Energy Resources
Economy: 441: The American West; 442: Indian-White Relations in United States History; 446: History of American Culture; 451: United States Military History, 1754 to the Present; 453: Women in American History (Same as Women's Studies 453); 454: Cities and Urbanization in American History; 459: Jefferson's America


Political Science 311: Contemporary Issues in American Public Policy; 312: Popular Culture and American Politics (Same as American Studies 312 and Cinema Studies 312); 330: Law in American Society (Same as Legal Studies 330); 374: African Political Thought Psychology 434: Psychology and Gender (Same as Women's Studies 434);


Women's Studies 310: Emergence of the Modern American Woman; 340: Women, Politics, and the Law

List B: Foreign Studies

NOTE: This list is subdivided by geographic area and topic. If Western Civilization (History 241-242) or Medieval Civilization (Medieval Studies 201-202) is used to satisfy the non-United States History divisional requirement, courses from the European concentration may not be used to satisfy this requirement.

In addition to the courses listed here this requirement may be satisfied by literature courses taught in Chinese, French, German, Greek, Hebrew, Italian, Japanese, Latin, Portuguese, Russian, Sanskrit, or Spanish. Literature courses in English translation will not meet this requirement.

Africa


Geography 379: Geography of Africa (Same as African and African-American Studies 379)

History 371: African History (Same as African and African-American Studies 371); 372: African History (Same as African and African-American Studies 372); 381: History of South Africa (Same as African and African-American Studies 381)

Political Science 452: Black African Politics (Same as African and African-American Studies 452)

Religious Studies 373: African Religions (Same as African and African-American Studies 373 and Anthropology 373)

Asia

Art History 411: Art of South and Southeast Asia; 415: Art of China; 419: Art of Japan History 362: History of East Asia; 363: History of East Asia; 364: History of China; 365: History of India; 366: Cultural History of China (Same as Philosophy 366; 372: Religion and Philosophy in China; 374: Religion in Japan; 474: Modern and Contemporary South Asian Religion

Europe

Anthropology 462: Early European Pre-history

Art History 425: Early Christian and Byzantine Art to 1350; 431: Medieval Art of the West, 800-1400; 441: Northern European Painting, 1350-1600; 442: Art of Northern Europe, 1600-1675; 451: Art of Italy, 1250-1540; 452: Art of Italy, 1450-1575; 453: Art of Southern Europe, 1575-1700; 454: Renaissance and Baroque Theory; 475: History of 19th Century Painting and Sculpture in Europe; 476: History of 20th Century Painting and Sculpture in Europe

Classics 331: Archaeology of the Aegean Bronze Age and Early Greece; 334: Cities and Sanctuaries of the Greek and Roman World; 381: Greek Civilization; 382: Roman Civilization; 383: Women in the Greek and Roman World (Same as Women’s Studies 383); English 301: British Culture to 1660; 302: British Culture: 1660 to Present; 401: Medieval Literature

French 420: French Cinema; 431: Highlights of French Civilization; 432: Contemporary French Culture

Geography 371: Geography of Europe; 375: Geography of Russia and the Commonwealth of Independent States

German 323: German Film; 350: German-Jewish Topics in Literature and Culture; 363: Modern German Culture

History 319: Modern Europe, 1750-1914; 320: Contemporary Europe, 1900-present; 323: Deviance and Persecution in the Christian West, 1100-1700; 429: Medieval Intellectual History; 432: Women in European History (Same as Women’s Studies 432); 490: Internship in the Center for the Study of War and Society

Italian 414: Italian Cultural Studies; 421: Topics in Italian Literature and Cinema

Medieval Studies 403: Seminar in Medieval Studies

Philosophy 320: Ancient Western Philosophy; 322: Medieval Philosophy; 324: Seventeenth- and Eighteenth-Century Philosophy; 326: Nineteenth- and Twentieth-Century Philosophy

Political Science 361: Politics in Western Democracies; 459: Government and Politics of Russia and Eastern Europe; 455: History ofspace

Russian 325: Russian Film; 371: Martyrs, Mobs, and Madmen in Russian Culture: 988-1861; 372: Eros, Death and Resurrection and Modern Russian Culture

Spanish 431: Spanish Civilization

Latin America

Anthropology 313: Peoples and Cultures of Mesoamerica (Same as Latin American Studies 313); 316: Peoples and Cultures of South America (Same as Latin American Studies 316); 319: Caribbean Cultures and Societies (Same as African and African-American Studies 319 and Latin American Studies 319)

Economics 424: Political Economy of World Development

Geography 372: Geography of Middle America (Same as Latin American Studies 372); 373: Geography of South America (Same as Latin American Studies 373)


Political Science 355: Latin American Government and Politics

Spanish 331: Introduction to Hispanic Culture (Same as Latin American Studies 331); 401: Cultural Plurality and Institutional Changes in Latin America (Same as Latin American Studies 401); 489: Topics in Hispanic Civilization

Middle East

Anthropology 463: Rise of Complex Civilizations

History 336: History and Archaeology of Mesoopotamia; 369: History of the Middle East (Same as Judaic Studies 369); 370: History of the Middle East (Same as Judaic Studies 370); 383: History of Jewish Civilization I (Same as Judaic Studies 383); 384: History of Jewish Civilization II (Same as Judaic Studies 384)

Religious Studies 311: Ancient Hebrew Religious Traditions (Same as Judaic Studies 311); 332: Classical Islam; 333: Islam in the Modern World; 381: Introduction to Judaism (Same as Judaic Studies 381); 385: Contemporary Jewish Thinkers (Same as Judaic Studies 385); 405: Modern Jewish Thought (Same as Judaic Studies 405)

Critical Issues in Foreign Studies

Economics 323: Economic Development (Third World)

Geography 345: Population and Environment; 351: The Global Economy

History 374: A History of Imperialism Since 1850; 375: Revolutions in Historical Perspective; 395: The Crusaders and Medieval Christian-Muslim Relations

Political Science 350: Political Change in Developing Areas; 365: Introduction to International Relations

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 Courses

These courses are offered within major fields and are designed to provide an integrative experience to broaden comprehension of the major field, to enhance understanding of how the field has and continues to influence society, and to draw attention to ethical considerations applicable to the field. As writing emphasis courses the capstones promote development of written communication skills used by the major field. It is recommended that this option be satisfied during the senior year.

NOTE: If used to satisfy the major requirement, these courses may not be used to satisfy the distribution requirement.
Audiology and Speech Pathology 499: Senior Seminar in Communication Sciences and Disorders
Biochemistry and Cellular and Molecular Biology 409: Perspectives in BCM; 420: Advanced Topics in BCM
Botany 471: Senior Seminar
Chemistry 405: Topics in the Development of Chemistry
Computer Science 411: Senior Thesis I;
412: Senior Thesis II
Ecology and Evolutionary Biology 409: Perspectives in Ecology and Evolutionary Biology
Economics 499: Analysis of Economic Problems
English 499: Senior Seminar
French 440: Capstone Experience in French Geograpy 499: Proseminar in Geography Geology 440: Field Geology; 475: Physical and Chemical Systems of the Earth
History 482: Colloquium in 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 430: Health Psychology;
496: Senior Seminar: Great Ideas in Psychology
Spanish 459: Capstone Colloquium in Spanish
Urban Studies 460: Senior Seminar

AREAS OF CONCENTRATION

1. Required Major
Requirements for specific majors vary by program and are discussed under each department or program. 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 divisional 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 Humanities requirement 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 in each major awarded on this campus. Students may elect as many courses as they desire 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, Biological Sciences, Chemistry, Classics, Computer Science, Economics, English, French, Geography, Geology, German, History, Interdisciplinary Programs, Italian, Mathematics, Music, Philosophy, Physics, Political Science, Psychology, Religious Studies, Russian, Sociology, Spanish, Speech Pathology, Statistics, and Theatre.

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 Arts and Sciences may also major inside the College of Arts and Sciences with the approval of the degree granting unit. These students need complete only the major requirements, not the Basic Skills or Distribution requirements for Arts and Sciences degrees. The Arts and Sciences 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 and major or among minors and Basic Skills and Distribution requirements. Students who satisfy the requirements of a degree in a college other than Arts and Sciences may also minor inside the College of Arts and Sciences 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 Astronomy, Portuguese, and Communication 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 Arts and Sciences. At least six of the 15 credit hours required for a minor must be completed at the University of Tennessee.

Business Minor for Non-Business Students
Requirements include the following courses: Accounting 201-202, Economics 201, Statistics 201, Finance 301, Management 301, Marketing 301, and one additional 200 level or above business elective. All upper division (300 level or above) course work must be taken at UT, Knoxville. 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 should 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 student’s 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 point at which the individualization takes place is in the area of concentration. 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), and at least two-thirds of the courses must be selected from disciplines within the College of Arts and Sciences.

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 focus, usually implemented through intensive work in two or three departments; an undirected scattering of courses will not be approved. For further information contact Arts and Sciences Advising Services.

COLLEGE SCHOLARS PROGRAM

A limited number of freshmen and sophomores, 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 (mentor) who under ordinary circumstances continues to advise the student throughout the college career. Together they determine what kinds of course work and/or other learning experiences will best fulfill the student’s objectives, while at the same time achieving the kind of liberal education the college believes is important for every student. In the final two years of the program 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 student’s transcript. 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 Arts and Sciences Advising Services.
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 satisfaction and completion of the first year of study at UT Health Science Center, 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 Health Science Center, 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 before entering UT Health Science Center, 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.

<table>
<thead>
<tr>
<th>Hours</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Freshman</td>
<td>124 minimum hours</td>
</tr>
<tr>
<td>Sophomore</td>
<td>93 hours</td>
</tr>
<tr>
<td>Junior</td>
<td>124 minimum hours</td>
</tr>
</tbody>
</table>

PRE-MEDICAL PROGRAM

The college offers a three-year program leading to a B.S. degree and a four-year program leading to a Bachelor of Arts or Science degree for students preparing for the study of medicine. Both programs are based upon the program 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 Health Science Center, 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 outlined below. The requirements for a major are waived for those taking their fourth year at UT Health Science Center, Memphis. Students in either the three- or four-year program must complete the last 30 hours of credit in residence at UT before entering UT Health Science Center, Memphis. Although the B.A./B.S. degree is not required for admission to the College of Medicine, most students accepted into the study of medicine have the baccalaureate degree before admission. Therefore, pre-medical students are encouraged to plan to complete all requirements for the degree before enrolling in the College of Medicine.

<table>
<thead>
<tr>
<th>Hours</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Freshman</td>
<td>124 minimum hours</td>
</tr>
<tr>
<td>Sophomore</td>
<td>93 hours</td>
</tr>
<tr>
<td>Junior</td>
<td>124 minimum hours</td>
</tr>
</tbody>
</table>
NUCLEAR MEDICINE TECHNOLOGY
The Nuclear Medicine Technology Curriculum requires a minimum of 94 hours credit, including the College’s basic skills and distribution requirements, prior to application for admission to a final year of study at the University of Tennessee Medical Center, Knoxville. Students who complete the Nuclear Medicine Technology Program at UTMC receive the B.S. degree in Preprofessional Programs with a concentration in Nuclear Medicine Technology from the College of Arts and Sciences.

NOTE: Admission to the Nuclear Medical Technology Program at UTMC is at the discretion of the admissions committee of that department; successful completion of the three year curriculum noted below does not assure admission to the program.

<table>
<thead>
<tr>
<th>Hours Credit</th>
<th>Senior</th>
<th>Completion of major program and B.A./B.S. requirements or completion of one year at UT Health Science Center, Memphis</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hours Credit</td>
<td>Sophomore</td>
<td>Requirement for a major is waived for those taking the Nuclear Medicine Technology Program.</td>
</tr>
<tr>
<td>Hours Credit</td>
<td>Junior</td>
<td>Total: 124 minimum hours</td>
</tr>
</tbody>
</table>

PRE-PHARMACY PROGRAMS
The college offers three programs preparing students for the study of pharmacy at UT Health Science Center, Memphis. The Doctor of Pharmacy (Pharm.D.) degree is conferred by the College of Pharmacy upon completion of 4 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 Arts and Sciences Advising Services, 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 Arts and Sciences. Further information may be obtained from Arts and Sciences Advising Services, 220 Ayres Hall.

The three-year program leading to a B.S. degree and the four-year program leading to either a B.A. or B.S. degree from the University of Tennessee as well as to the professional degree in pharmacy from UT Health Science Center, 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 Arts and Sciences, and the B.S. degree is granted upon satisfactory completion of the first year of study in Memphis. In the four-year program the B.A. or B.S. degree is granted upon completion of 124 or more credit hours while enrolled in the college, including a major of 24 or more hours in addition to the courses outlined below. The requirement for a major is waived for those taking the fourth year at UT Health Science Center, Memphis. Students in either the three- or four-year program must complete the last 30 hours of credit in residence at UT Knoxville.

PRE-TEACHING PROGRAMS
Students planning careers in K-12 teaching must complete an Arts and Sciences major in a department, in one of the Interdisciplinary or Pre-Teaching programs or, if eligible, in the College Scholars Program. Prospective secondary teachers must fulfill all requirements of appropriate content majors; prospective elementary teachers may choose either a departmental major or one of the four options described below. All pre-teaching students should consult appropriate materials in Arts and Sciences Advising Services before making final choices of majors.
To be licensed for teaching, students must also gain formal admission to the Teacher Education Program in the College of Education. The process involves successful completion of a series of requirements including presentation of satisfactory scores on certain tests, completing professional courses in the College of Education, maintenance of a 2.7 or higher GPA, and completing a fifth year program emphasizing practical application. For details, see the College of Education section of the Undergraduate Catalog and contact the Education Advising Center, Claxton Complex 332.

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 two tracks beyond the core stress the two major emphases of the ecological sciences—the biological and the physical-chemical. The student choosing to emphasize the biological track should be prepared to teach general and physical science (chemistry, geography, biology, botany, ecology and evolutionary biology, microbiology, psychology) and in physical science (chemistry, geography, geology, physics) is designed to fulfill the state competencies for I 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
115, 123 (3,3) or Mathematics 123, 125 (3,3) or Mathematics 141-142 (4,4) or Mathematics 151-152 (3,3)
2. Chemistry 120, 130 (4,4)
3. Biology 130, 140 (4,4) or Botany 110-120 (4,4)
4. Geology 101-102 (4,4) or Geography 131-132 (4,4) or Physics 221-222 (4,4)

Core courses: (11 hours)
1. Biology 240: General Genetics (4)
2. Biology 250: General Ecology (4)
3. Geology 203: Geology of National Parks (3)

Beyond the core curriculum, the student must choose 18 hours from the two tracks listed below: 15 hours from one track and 3 hours from the other track.

A. Biological Sciences Track
Botany 305: Socio-Economic Impact of Plants (3); Botany 310: Plant Morphology (4); Botany 330: Field Botany (3); Botany 403: Plant Evolution (3); Botany 431: Plant Ecology (3); Ecology and Evolutionary Biology 350: Comparative Vertebrate Biology (4); Ecology and Evolutionary Biology 360: Comparative Invertebrate Biology (4); Ecology and Evolutionary Biology: 380: General Entomology (3); Ecology and Evolutionary Biology 402: Practicum in Ecology and Evolutionary Biology (2); Ecology and Evolutionary Biology 450-459: Comparative Animal Behavior and Lab (3,3); Ecology and Evolutionary Biology 470: Aquatic Ecology (3); Ecology and Evolutionary Biology 474: Ichthyology (3); Ecology and Evolutionary Biology 475: Field Ornithology (2); Ecology and Evolutionary Biology 484: Conservation Biology (3); Forestry, Wildlife and Fisheries 311: Descriptive and Silvics of North American Trees (3); Geography 435: Biogeography (3); Geography 439: Plant Geography of North America (3); Geology 320: Paleobiology (3); Geology 420: Paleoecology (4); Microbiology 310-19: Introduction to Microbiology and Lab (3,1); +Microbiology 470: Microbial Ecology (3).

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

B. Physical-Chemical Sciences Track
Biochemistry and Cellular and Molecular Biology 310: Physiological Chemistry (4); Chemistry 350-360-369: Organic Chemistry and Lab (3,3,2); Ecology and Evolutionary Biology 446: Introduction to Oceanography (4); Geography 334: Meteorology (3); Geography 433: The Land-Surface System (3); Geography 434: Climatology (3); Geography 436: Water Resources (3); Geology 450: Process Geomorphology (3); +Geology 455: Basic Environmental Geology; Geology 485: Principles of Geohydrology (3).

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

Total (core + track concentration) = 29 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 and cellular and molecular biology, biology, botany, ecology and evolutionary biology, microbiology, psychology) and in physical science (chemistry, geography, geology, physics) is designed to fulfill the state competencies for I 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 115, 123 (3,3) or Mathematics 123, 125 (3,3) or Mathematics 141-142 (4,4) or Mathematics 151-152 (3,3)
2. Chemistry 120, 130 (4,4)
3. Biology 130, 140 (4,4) or Botany 110-120 (4,4)
4. Geology 101-102 (4,4) or Geography 131-132 (4,4) or Physics 221-222 (4,4)

Core courses: (11 hours)
1. Biology 240: General Genetics (4)
2. Biology 250: General Ecology (4)
3. Geology 203: Geology of National Parks (3)

Beyond the core curriculum, the student must choose 18 hours from the two tracks listed below: 15 hours from one track and 3 hours from the other track.

A. Biological Sciences Track
Botany 305: Socio-Economic Impact of Plants (3); Botany 310: Plant Morphology (4); Botany 330: Field Botany (3); Botany 403: Plant Evolution (3); Botany 431: Plant Ecology (3); Ecology and Evolutionary Biology 350: Comparative Vertebrate Biology (4); Ecology and Evolutionary Biology 360: Comparative Invertebrate Biology (4); Ecology and Evolutionary Biology 380: General Entomology (3); Ecology and Evolutionary Biology 402: Practicum in Ecology and Evolutionary Biology (2); Ecology and Evolutionary Biology 450-459: Comparative Animal Behavior and Lab (3,3); Ecology and Evolutionary Biology 470: Aquatic Ecology (3); Ecology and Evolutionary Biology 474: Ichthyology (3); Ecology and Evolutionary Biology 475: Field Ornithology (2); Ecology and Evolutionary Biology 484: Conservation Biology (3); Geography 334: Meteorology (3); Geography 433: The Land-Surface System (3); Geography 434: Climatology (3); Geography 436: Water Resources (3); Geology 450: Process Geomorphology (3); +Geology 455: Basic Environmental Geology; Geology 485: Principles of Geohydrology (3).

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

B. Physical-Chemical Sciences Track
Biochemistry and Cellular and Molecular Biology 310: Physiological Chemistry (4); Chemistry 350-360-369: Organic Chemistry and Lab (3,3,2); Ecology and Evolutionary Biology 446: Introduction to Oceanography (4); Geography 334: Meteorology (3); Geography 433: The Land-Surface System (3); Geography 434: Climatology (3); Geography 436: Water Resources (3); Geology 450: Process Geomorphology (3); +Geology 455: Basic Environmental Geology; Geology 485: Principles of Geohydrology (3).

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

Total (core + track concentration) =32 hours

A. Biological Sciences
+Anthropology 210: Principles of Biological Anthropology (3); +Anthropology 464: Principles of Zooarcheology (3); +Anthropology 480: Human Osteology (3); +Anthropology 481: Human Evolution (3); +Anthropology 495: Human Paleontology (3); Anthropology 496: Biology of Human Variability (3); Biochemistry and Cellular and Molecular Biology 230: Human Physiology (5); Biochemistry and Cellular and Molecular Biology 310: Physiological Chemistry (4); Biochemistry and Cellular and Molecular Biology 330-331: Mechanisms of Development and Lab (3,2).

Beyond the core curriculum, the student must choose only one: Botany 306: Socio-Economic Impact of Plants (3); Botany 321: Introductory Plant Physiology (4); Botany 330: Field Botany (3); Botany and Evolutionary Biology 240: Human Anatomy (4); Ecology and Evolutionary Biology 350: Comparative Vertebrate Biology (4); Ecology and Evolutionary Biology 360: Comparative Invertebrate Biology (4); Ecology and Evolutionary Biology 380: General Entomology (3); Ecology and Evolutionary Biology 450-459: Comparative Animal Behavior and Lab (3,3); Ecology and Evolutionary Biology 470: Aquatic Ecology (3); Ecology and Evolutionary Biology 474: Ichthyology (3); Ecology and Evolutionary Biology 475: Field Ornithology (2); Ecology and Evolutionary Biology 484: Conservation Biology (3); Geography 433: The Land-Surface System (3); Geography 434: Climatology (3); Geography 436: Water Resources (3); +Geography 445: Geography of Resources (3); +Geology 201: Biodiversity: Past, Present, and Future (3); +Geology 202: Earth as an Ecosystem: Modern Problems and Solutions (3); Geology 203: Geology of National Parks (3).

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

B. Physical Sciences
Chemistry 350-360-369: Organic Chemistry and Lab (3,3,2); Ecology and Evolutionary Biology 446: Introduction to Oceanography (4); Geography 334: Meteorology (3); Geography 433: The Land-Surface System (3); Geography 434: Climatology (3); Geography 436: Water Resources (3); +Geography 445: Geography of Resources (3); +Geology 201: Biodiversity: Past, Present, and Future (3); +Geology 202: Earth as an Ecosystem: Modern Problems and Solutions (3); Geology 203: Geology of National Parks (3).

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

Total (core + track concentration) =32 hours
3. Mathematics

This concentration aims at developing a fundamental understanding of some of the primary avenues of mathematical thought appropriate to the needs of the teacher in grades K-8. Topics include algebra, calculus, computing, geometry, history of mathematics, probability, and statistics.

- Mathematics 115: Statistical Reasoning (3)
- Mathematics 130: Precalculus I (4)
- Mathematics 141-142: Calculus I and II (4,4)
- Mathematics 241: Calculus III (4)
- Mathematics 251: Matrix Algebra (3)
- Mathematics 300: Introduction to Abstract Mathematics (3)
- Mathematics 323: Probability (3)
- Mathematics 400: History of Mathematics (3)
- Mathematics 401: Math and Microcomputing (3)
- Mathematics 460: Geometry (3)

Total: 36 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 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 courses: (32 hours)

1. Mathematics 141-142 (4,4)
2. Biology 120, 130 (4,4)
3. Biology 310, 360 (4,4) or Botany 110-120 (4,4)
4. One sequence from among the following:
   - Astronomy 161-162 (4,4) or Geography 131-132 (4,4) or Botany 101-102 (4,4) or Physics 221-222 (4,4)

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

Core courses: (17 hours)

1. Biology 240: General Genetics (4); Biology 250: General Ecology (4) or Biochemistry and Cellular and Molecular Biology 230; Human Physiology (5); and Ecology and Evolutionary Biology 240: Human Anatomy (4)
2. Choose two of the following three courses:
   - Geology 201: Biodiversity; Past, Present, and Future (3); Geology 202: Earth as an Ecosystem; Modern Problems and Solutions (3); Geology 303: Geology of National Parks (3)
3. Mathematics 300: Introduction to Abstract Mathematics (3) Beyond the core curriculum, the student must take two courses from each of these three areas:
   - A. *Biological Sciences (6-8 hours)
     - Anthropology 496: Biology of Human Variability (3)
     - Biochemistry and Cellular Biology 310: Physiological Chemistry (4)
     - Biochemistry and Cellular and Molecular Biology 330: Animal Development and Embryology (3)
     - Botany 305: Socio-Economic Impact of Plants (3)
     - Botany 306: Genetics and Society (3)
     - Botany 310: Plant Morphology (4)
     - Botany 321: Introductory Plant Physiology (4)
     - Botany 330: Field Botany (3)
     - Ecology and Evolutionary Biology 350: Comparative Vertebrate Biology (4)
     - Ecology and Evolutionary Biology 360: Comparative Invertebrate Biology (4)
     - Ecology and Evolutionary Biology 380: General Entomology (3)
     - Ecology and Evolutionary Biology 450-459: Comparative Animal Behavior and Lab (3,3)
     - Ecology and Evolutionary Biology 470: Aquatic Ecology (3)
     - Ecology and Evolutionary Biology 474: Ichthyology (3)
     - Ecology and Evolutionary Biology 484: Conservation Biology (3)
     - Geography 435: Biogeography (3)
     - Microbiology 310: Introduction to Microbiology (3)
     - Microbiology 470: Microbial Ecology (3)
     - Psychology 410: Sensory Processes and Perception (3)
     - Psychology 461: Physiological Psychology (3)
   - B. Physical Sciences (6-8 hours)
     - Chemistry 350-360-369: Organic Chemistry and Lab (3,3,2)
     - Ecology and Evolutionary Biology 446: Introduction to Oceanography (4)
     - Geography 334: Meteorology (3)
     - Geography 433: The Land-Surface System (3)
     - Geography 434: Climatology (3)
     - Geography 436: Water Resources (3)
     - Geography 437: Environmental Geology (3)
     - Geology 310: Mineralogy (3)
     - Geology 320: Paleobiology (3)
     - Geology 330: Igneous and Metamorphic Petrology (3)
     - Geology 340: Stratigraphy and Sedimentation (3)
     - Geology 370: Structural Geology (4)
     - Geology 381: Minerals and Energy Resources: Geology and Constraints and Environmental Impacts (3)
     - Geology 420: Paleocology (4)
   - C. Mathematics (6 hours)
     - Mathematics 400: History of Mathematics (3)
     - Mathematics 401: Microcomputing (3)
     - Math 405: Models in Biology (3)
     - Mathematics 460: Geometry (3)

Total (core + areas A, B, and C) = 35 hours

PRE-VETERINARY MEDICINE PROGRAM

The following program is designed for students who wish to pursue an Arts and Sciences 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 Arts and Sciences, 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 preprofessional veterinary medicine curriculum, the Bachelor of Science degree will be conferred by the College of Arts and Sciences.

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.

Hours Credit

- Freshman
  - English 101-102 ........................................ 6
  - Chemistry 120-130 .................................. 8
  - Biology 130-140 ..................................... 8
  - Basic Skills (B) Foreign Language (Intermediate Level Sequence) ........................................ 6
  - *Mathematics ........................................... 4-8
- Sophomore
  - Biology 240 ............................................ 4
  - Chemistry 350, 360, 369 ............................. 8
  - Physics 221-222 ...................................... 8
  - Divisional Distribution: Non U.S. History .... 6
  - *Divisional Distribution: Social Sciences ........ 3
- Junior
  - Biochemistry and Cellular and Molecular Biology 410 or 401 and 402 .................. 4-6
  - *Divisional Distribution: Social Science .......... 3
  - *Divisional Distribution: Humanities .............. 6
  - Upper Level Distribution (A) U.S. Studies, (B) Foreign Studies, or (C) Capstone Experience .................. 6
  - Electives ............................................... 7-12

Total: 93 hours

Senior

Completion of major program and B. A./B.S. requirements or completion of one year at UT College of Veterinary Medicine

Total: 124 minimum hours

1 Or equivalent honors courses
2 This requirement assumes a student has had enough language background in high school to begin an intermediate language sequence at UT.
3 Math placement depends on high school courses and grades, ACT scores, and BA/BS requirements.
4 Mathematics 130 or a calculus course is a prerequisite for Physics. All students must complete the Math Basic Skills requirement as outlined in the Arts and Sciences curriculum.
5 B.A. students must take at least one course from List A: Literature and at least one course from List B: Philosophical and Religious Thought plus one additional course from List A, B, or C. B.S. students must complete a minimum of 6 credits from the three lists; not more than 3 credits may be taken from List C: Arts.
6 B.A. students must complete a minimum of credits in one of the three areas and 3 credits from one of the remaining two areas. B.S. students must complete a minimum of 6 credits in two of the three areas.
7 Depending upon course selection, a student may require less than the listed elective hours to reach the minimum total of 93 hours.

SCIENCE-MEDICAL TECHNOLOGY CURRICULUM

Students who complete the Science-Medical Technology Curriculum receive the B.S. degree with a major in medical technology from the College of Arts and Sciences. 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
**AFRICAN AND AFRICAN-AMERICAN STUDIES**
See Interdisciplinary Programs.

**AMERICAN STUDIES**
See Interdisciplinary Programs.

---

**ANTHROPOLOGY**

**Professors:**

**Associate Professors:**
- I. Harrison (Emeritus), Ph.D. Syracuse; A. Kramer (Head), Ph.D. Michigan; M. Marks, Ph.D. Tennessee.

**Assistant Professor:**
- M. Ferreira, Ph.D. California (Berkeley); H.N. Qirko, Ph.D. Tennessee.

**Research Associate Professor:**

**Research Assistant Professor and Curator:**
- S. Frankenberg, Ph.D. Northwestern.

**Research Assistant Professor:**
- M. Elam, Ph.D. Missouri.

**Instructor and Coordinator, Forensic Center**
- L.M. Jantz, Ph.D. Tennessee.

**Adjunct Professor:**
- R. Dunnell, Ph.D. Yale; F.V. Harrison, Ph.D. Stanford.

**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 an Anthropology advisor.

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. The Department of Anthropology offers honors seminars for juniors and seniors, leading to an honors major. The honors major consists of 357 and 457 plus 24 additional hours of upper division course work in Anthropology distributed as specified above for the major.

To enroll in Anthropology 357, the student must have fulfilled the progression requirements necessary to declare a major in Anthropology and must have an overall GPA of 3.2. To enroll and receive honors credit for Anthropology 457, the student must complete 357 with a grade of B or better, maintain a 3.5 GPA in all Anthropology courses, and maintain a 3.2 GPA overall.

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, and 130 are prerequisite to a minor in anthropology, consisting of 15 hours of upper division Anthropology courses, chosen in consultation with an Anthropology advisor.

---

**ART**

**Professors:**
- N. Magden (Director), Ph.D. Case Western Reserve; S.J. Blain, M.F.A. Wisconsin; M. Brakke, M.F.A. Yale; J. Darrow (Emeritus), Ed.D. Illinois; J. S. Falsetti (Emeritus), M.S.
- Ohio State; M.B. Goldenstein, M.F.A.
- Nebraska; D. M. Habel, Ph.D. Michigan; W.C. Kennedy, M.F.A. Wisconsin; B. Lee, M.F.A. Yale; W.E. Leland, M.F.A. Tennessee; P.R. Livingston, M.F.A. Wisconsin; B. Lyons, M.F.A. Arizona State; F.H. Martinson (Emeritus), Ph.D. Chicago; S.E. Metros, M.F.A. Michigan State; F.C. Moffatt, Ph.D. Chicago; D. Peacock (Emeritus), M.F.A. Iowa; T.J. Riesing, M.F.A.
- Nebraska; F.C. Stewart, M.F.A. Claremont; D. Wilson, M.F.A. Wisconsin; S.A. Yates, M.F.A. North Carolina (Greensboro).

**Associate Professors:**
- Sally Brodgen, M.F.A. New York State College of Ceramics at Alfred; T. W. Hiles, Ph.D. Pennsylvania State; A.L. Neff, Ph.D. Pennsylvania;
- C. Staples, M.F.A Michigan State.

**Assistant Professors:**

**PROGRESSION REQUIREMENTS**

The following core courses must be completed before students can progress into the program as art majors and before further art classes may be taken:

**Art 101**

**Art 103**

**Art History 162, 172, 173, or 183** (choose one)

*See section on transfer students. Students have the right to petition the School in the event of unusual enrollment circumstances.*
Students entering the major must have earned a minimum 3.00 cumulative average in the above courses to be considered for progression into the School of Art. Those applying will progress in rank order of cumulative average as space allows. The overall record will be evaluated for quality and seriousness of purpose. Excessive absences, withdrawals, incompletes or repeated courses may result in denial of progression. Progression into the School of Art does not guarantee progression into a chosen concentration. Progression into a concentration will follow successful completion of a Concentration Portfolio Review.

B. F. A. IN STUDIO ART
The B.F.A. in 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 (B.A. Studio, B.F.A. Studio and Art Education) 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 of schedules and details. It should not be assumed that a high grade point average in the major 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. Before choosing a concentration, students should contact their intended area to see what options are offered in the event they do not pass portfolio review. All studio courses require 3 hours per week attendance for each credit hour earned. Completing the B.F.A. program may take more than 8 semesters. Students are urged to seek departmental advisement each semester to ensure proper scheduling. Students seeking the B.F.A. Degree in Studio Art should also consider pursuing a minor in Art History.

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. Transfer students must have a minimum overall GPA of 3.00 in Art and Art History courses and may be required to present a portfolio. Those students who have not taken any art courses must take the sequence of courses required of freshmen (see section on Progression into the School of Art). Students should be cautioned that art courses taken at another institution may not apply toward their concentration. Art Design 252, Drawing 212, and Painting 214 must be taken at the University of Tennessee. Courses not accepted for application toward a concentration may be counted as studio electives.

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.

Students may be accepted into advanced media concentrations in Ceramics, Drawing, Painting, Media Arts, Printmaking, Sculpture, and Watercolor after passing the appropriate portfolio course.

### Basic Requirements

<table>
<thead>
<tr>
<th>All Concentrations Except Media Arts</th>
<th>Hours Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Core</td>
<td></td>
</tr>
<tr>
<td>Art 101, 103</td>
<td>4</td>
</tr>
<tr>
<td>Art 295</td>
<td></td>
</tr>
<tr>
<td>Art History 172 and 173 and 162 or 183</td>
<td>9</td>
</tr>
<tr>
<td>Art History Electives</td>
<td>9</td>
</tr>
<tr>
<td>One course from each of the following 6 areas</td>
<td>18</td>
</tr>
<tr>
<td>Art Ceramics, Art Drawing, Art Media Arts, Art Painting/Watercolor, Art Printmaking, and Art Sculpture</td>
<td></td>
</tr>
<tr>
<td>Sub-Total: 43</td>
<td></td>
</tr>
</tbody>
</table>

### Studio Electives

Additional hours in studio courses to be completed in the School of Art or an affiliated facility, Arrowmont School of Arts and Crafts. Students may also apply a maximum of 6 hours of approved studio courses from Architecture, Art Education, Broadcasting, Journalism, Computer Science, Human Resource Development, Interior Design or Theatre. Students electing an additional major in Art Education and licensure to teach in schools K-12 must take 13 hours in undergraduate Art Education courses. Sub-Total: 18

### General Curriculum

<table>
<thead>
<tr>
<th></th>
<th>Hours Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>English Composition</td>
<td>6</td>
</tr>
<tr>
<td>Non U.S. History/Social Science</td>
<td>6</td>
</tr>
<tr>
<td>Natural Science/Mathematics</td>
<td>6-8</td>
</tr>
<tr>
<td>Arts and Sciences Non-Art Electives</td>
<td>14-16</td>
</tr>
<tr>
<td>Sub-Total: 34</td>
<td></td>
</tr>
</tbody>
</table>

### Concentrations

#### Ceramics

- Ceramics 222 ....................................... 3
- Ceramics 321, 322 (prerequisite for all 400 level) 6
- Ceramics courses .................................... 6
- Ceramics 421, 422, 429, 493, or 494 14
- Approved Concentration Electives: (9 hours from the following) 18
  - Drawing 212
  - Sculpture 241, 242, 243, 245, 246
  - Printmaking 262, 263
  - Painting 213, 214, 215
  - Arrowmont Ceramics 420 9
- Sub-Total: 32

#### Drawing

- Art Drawing 212 (may be repeated) 3
- Art Drawing 311 (for two semesters) 8
- Art Drawing 411 (for two semesters) 12
- Approved Concentration Electives: (9 hours from the following) 18
  - Art Drawing 219/419 (maximum 6 hours) 9
  - Art Painting 213, 214, 215, 216
  - Art Media Arts 231 9
  - Art Printmaking 262, 263 9
- Sub-Total: 32

#### Painting

- Painting 214 (may be repeated) 3
- Portfolio Review 312 (S/NC) 6
- Painting 313 (for two semesters) 8
- Painting 413 (for two semesters) 12
- Approved Concentration Electives: (9 hours from the following) 18
  - Art Drawing 219/419 (maximum 6 hours) 9
  - Art Painting 213, 214, 215 9
  - Art Media Arts 231 9
  - Art Drawing 212 9
- Sub-Total: 32

### Printmaking

- Printmaking 200 level course 3
- Portfolio Review 360 (S/NC) 20
- Printmaking 300 and 400 level courses 20
- Approved Concentration Electives: (9 hours from the following) 20
  - Art Drawing 212 (maximum 6 hours) 9
  - Art Drawing 311 9
  - Art Drawing 419 (maximum 6 hours) 9
  - Art Media Arts 231 9
  - Art Printmaking 469 (3 hours) 9
- Sub-Total: 32

### Sculpture

- Sculpture 200 level course 3
- Portfolio Review 340 (S/NC) 8
- Prerequisite to 300 and 400 level courses 20
- Approved Concentration Electives: (9 hours from the following) 20
  - Art Drawing 212 (maximum 6 hours) 9
  - Art Drawing 311 9
  - Art Drawing 419 (maximum 6 hours) 9
  - Art Media Arts 231 9
  - Art Printmaking 469 (3 hours) 9
- Sub-Total: 32

### Watercolor

- Painting 216 (may be repeated) 3
- Portfolio Review 314 (S/NC) 8
- Art Drawing 315 (for two semesters) 12
- Art 415 (for two semesters) 12
- Approved Concentration Electives: (9 hours from the following) 12
  - Art Drawing 219/419 (maximum 6 hours) 9
  - Art Painting 213, 214, 215 9
  - Art Media Arts 231 9
  - Art Drawing 212 9
- Sub-Total: 32

Total: 127

### B. F. A. IN STUDIO ART—MEDIA ARTS CONCENTRATION

#### Basic Requirements

<table>
<thead>
<tr>
<th></th>
<th>Hours Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Core</td>
<td></td>
</tr>
<tr>
<td>Art 101, 103</td>
<td>4</td>
</tr>
<tr>
<td>Art 295</td>
<td></td>
</tr>
<tr>
<td>Art History 172 and 173 and 183 or 162</td>
<td>9</td>
</tr>
<tr>
<td>Art History Electives</td>
<td>9</td>
</tr>
<tr>
<td>Art 295</td>
<td></td>
</tr>
<tr>
<td>Art Drawing 212</td>
<td></td>
</tr>
<tr>
<td>Art Drawing 219/419</td>
<td>9</td>
</tr>
<tr>
<td>Art Painting 213, 214, 215, 216</td>
<td>9</td>
</tr>
<tr>
<td>Art Media Arts 231</td>
<td>9</td>
</tr>
<tr>
<td>Art Printmaking 262, 263</td>
<td>9</td>
</tr>
<tr>
<td>Sub-Total: 32</td>
<td></td>
</tr>
</tbody>
</table>

#### Concentration

- Media Arts 330 (Portfolio Review) (Prerequisite to 300 and 400 level courses) (S/NC) 0
- Art History 403 (History of Photography) 3
- Art Media 343 (History of Film and Modern Art) 3
- Art Media 435 (Cinematography as Art) 6
- Art Media 436 (Media Arts) 9
- Art Media 331 (Photography) 9
- Art Media 341 (Digital Photography) 9
- Art Media 441 (Digital Photography) 9
- 300 and 400 Level Electives in Media Arts 6
- Sub-Total: 32
B.F.A. IN STUDIO ART WITH ADDITIONAL COURSES IN ART EDUCATION

Students who wish to obtain licensure to teach art in schools K-12 can pursue the B.F.A. degree in studio with additional courses in Art Education. Up to 13 credit hours of Art Education courses may be used as studio electives. Students who wish to pursue licensure to teach should be aware that General Curriculum requirements are different. For details, see Art Education listings in the College of Education section of this catalog.

B.F.A. IN GRAPHIC DESIGN

The Graphic Design major is specifically designed to provide the basic visual education for students who wish to pursue careers in graphic design-related fields such as advertising, art direction, three-dimensional design, publications, or electronic media.

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. Transfer students who expect to enroll in 300 (junior 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 42 credit hours, 300 level or above, must be earned prior to graduation.

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

Students must complete 351 and 356 with a grade of C or better by the end of the second fall semester following successful completion of Portfolio Review (350). If 351 and 356 are not successfully completed in this time, the student must resubmit a portfolio to regain entrance into the junior program. Resubmission of the portfolio must occur during the scheduled spring portfolio review.

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Art 101, 103, 295</td>
<td>7</td>
</tr>
<tr>
<td>Art History 172, 173</td>
<td>6</td>
</tr>
<tr>
<td>Art History electives</td>
<td>9</td>
</tr>
<tr>
<td>Art Drawing 211, 212; Art Painting 213 (or 215); Art Media Arts 231</td>
<td>12</td>
</tr>
<tr>
<td>Sub-Total: 34</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Graphic Design</td>
<td>15</td>
</tr>
<tr>
<td>Art Graphic Design 151</td>
<td>3</td>
</tr>
<tr>
<td>Art Graphic Design 251, 252, 351, 352, 356, 451, 452, 455</td>
<td>24</td>
</tr>
<tr>
<td>Art Graphic Design 350</td>
<td>12</td>
</tr>
<tr>
<td>Portfolio Review (S/NC)</td>
<td>0</td>
</tr>
<tr>
<td>Art Graphic Design 444 (maximum 6 hours) and/or 456</td>
<td>12</td>
</tr>
<tr>
<td>Sub-Total: 39</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Design and Professional Electives</td>
<td>12</td>
</tr>
<tr>
<td>Art Graphic Design 254, 256, 259, 354, 396, 405, 453, 454, 459; Art Media Arts 235, 236, 331, 435, 436; Art 491, 492; Advertising 250, 350, 490; Marketing 301</td>
<td>12</td>
</tr>
<tr>
<td>Sub-Total: 12</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Studio Electives Students must choose a total of 9 hours from a minimum of 2 categories: (1) Art Printmaking; (2) Art Ceramics; (3) Art Sculpture; or (4) Art Media Arts</td>
<td>9</td>
</tr>
<tr>
<td>Sub-Total: 9</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>General Curriculum</td>
<td>6</td>
</tr>
<tr>
<td>English Composition</td>
<td>6</td>
</tr>
<tr>
<td>Non U.S. History/Social Science</td>
<td>6</td>
</tr>
<tr>
<td>Natural Science/Mathematics</td>
<td>6-8</td>
</tr>
<tr>
<td>Arts and Sciences Non-Art Electives</td>
<td>13-15</td>
</tr>
<tr>
<td>Total: 33</td>
<td></td>
</tr>
</tbody>
</table>

Total Semester Hours: 127 hours

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Graphic Design</td>
<td>15</td>
</tr>
<tr>
<td>Art Graphic Design 151</td>
<td>3</td>
</tr>
<tr>
<td>Art Graphic Design 251, 252, 351, 352, 356, 451, 452, 455 (in sequence)</td>
<td>24</td>
</tr>
<tr>
<td>Art Graphic Design 350</td>
<td>12</td>
</tr>
<tr>
<td>Portfolio Review (S/NC)</td>
<td>0</td>
</tr>
<tr>
<td>Art Graphic Design 444 (maximum 6 hours) and/or 456</td>
<td>12</td>
</tr>
<tr>
<td>Sub-Total: 39</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Design and Professional Electives</td>
<td>12</td>
</tr>
<tr>
<td>Art Graphic Design 254, 256, 259, 354, 396, 405, 453, 454, 459; Art Media Arts 235, 236, 331, 435, 436; Art 491, 492; Advertising 250, 350, 490; Marketing 301</td>
<td>12</td>
</tr>
<tr>
<td>Sub-Total: 12</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Studio Electives Students must choose a total of 9 hours from a minimum of 2 categories: (1) Art Printmaking; (2) Art Ceramics; (3) Art Sculpture; or (4) Art Media Arts</td>
<td>9</td>
</tr>
<tr>
<td>Sub-Total: 9</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>General Curriculum</td>
<td>6</td>
</tr>
<tr>
<td>English Composition</td>
<td>6</td>
</tr>
<tr>
<td>Non U.S. History/Social Science</td>
<td>6</td>
</tr>
<tr>
<td>Natural Science/Mathematics</td>
<td>6-8</td>
</tr>
<tr>
<td>Arts and Sciences Non-Art Electives</td>
<td>13-15</td>
</tr>
<tr>
<td>Total: 33</td>
<td></td>
</tr>
</tbody>
</table>

Total Semester Hours: 127 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.

MAJOR IN STUDIO

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Art History 162, 172, 173, 183 (any two)</td>
<td>6</td>
</tr>
<tr>
<td>Studio courses numbered 200 and above, including a minimum of 15 hours in 300-400 level courses</td>
<td>24</td>
</tr>
<tr>
<td>Total: 40 hours</td>
<td></td>
</tr>
</tbody>
</table>

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

MINOR IN ART HISTORY

| Prerequisite: Art History 172, 173, 183 | 9 |
| or their Honors equivalents | 9 |
| Minor: Art History courses numbered 200 and above | 15 |
| Total: 24 hours |

MINOR IN STUDIO

| Prerequisites: Art 101, 103, 295 | 7 |
| Art History 172, 173, 183 (any two) | 6 |
| Studio courses which include a minimum of 8 additional upper-division hours | 24 |
| Concentration may be Ceramics, Drawing, Media Arts, Painting-Watercolor, Printmaking, Sculpture or a combination from these areas | 15 |
| Total: 28 hours |

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 School of Art in 1978. The program currently includes spring and summer one and two week media workshops, special weekend 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 School 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:
S. Handel (Interim Head), Ph.D. Johns Hopkins; Peter Alfonso, Ph.D. Illinois; C.W. Asp, Ph.D. Ohio State; P.J. Carney, Ph.D. Iowa; D.M. Lipscomb (Adjunct), Ph.D. Washington; I.V. Nabelek (Emeritus), Ph.D. Czech Technical (Prague); H.A. Peterson (Emeritus), Ph.D. Illinois; B. Silverstein (Emeritus), Ph.D. Purdue.

Associate Professors:
S.B. Burchfield, Ph.D. Michigan State; C.J. Ferrell, M.A. Tennessee; M. Hedrick, Ph.D. Vanderbilt; P. Payne, Ph.D. Tennessee; Lori Swanson, Ph.D. Purdue; J. Thein, Ph.D. Iowa.

Assistant Professors:
M. L. Erickson, Ph.D. Southern California; P. Flipsen, Ph.D. Wisconsin; A. Harkrider, Ph.D. Texas; G. McCullough, Ph.D. Vanderbilt; S. Newsom (Adjunct), Tennessee; J. Ruark, Ph.D. University of Pittsburgh.

Instructor:
T.R. Singletary, M.S. Colorado State.

Research Professor:
A. K. Nabelek (Emerita), Ph.D. Polish Academy of Sciences, Warsaw, Poland.

Research Coordinator:
Polly Alfonso, M.A. Southwest Missouri 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 to and professional certification in some aspect of speech, language, and hearing disorders. The master’s degree is required for professional certificates and employment positions. Information about the audiologist 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 advisors in the early years for advisor by departmental office.

Bacteriology

See Microbiology.

Biology and Cellular and Molecular Biology

Professors:
R.M. Bagby, Ph.D. Illinois; J.M. Becker, Ph.D. Cincinnati; J. G. Carlson (Emeritus) (Distinguished Prof.), Ph.D. Pennsylvania; J.E. Churchich, Ph.D. Sheffield; M.A. Handel (Distinguished Prof.), Ph.D. Kansas State; B. Hochman (Emeritus), Ph.D. California; K.W. Jeon, Ph.D. London; J.G. Joshi (Ph.D. Poona; D.C. Joy (Distinguished Scientist), Ph.D. Oxford (UK); J.R. Kennedy, Ph.D. Iowa; J.W. Koontz, Ph.D. Kentucky; J.N. Liles (Emeritus), Ph.D. Ohio State; J.A. MacCabe, Ph.D. California (Davis); B.D. McKee (Head), Ph.D. Michigan State; K.J. Monf, Ph.D. Rochester; D. M. Roberts, Ph.D. California (Davis); L.E. Roth (Emeritus), Ph.D. Chicago; T.P. Salo (Emeritus), Ph.D. Michigan; C.A. Shivers, Ph.D. Michigan State; H.G. Welch (Emeritus), Ph.D. Florida; G. L. Whitson (Emeritus), Ph.D. Iowa; W.D. Wicks, Ph.D. Harvard.

Associate Professors:
B. Bruce, Ph.D. California (Berkeley); R. Ganguly, Ph.D. Nebraska; J.C. Hall, Ph.D. Illinois; E.E. Howell, Ph.D. Lehigh; C.B. Peterson, Ph.D. LSU; R.A. Prosser, Ph.D. Illinois; E.H. Serpensu, Ph.D. Hatcecepe.

Assistant Professors:

The Biological Sciences Major offers four areas of concentration: Biochemistry and Cellular and Molecular Biology; Ecology and Evolutionary Biology; Microbiology; and Plant Biology. (See section C. below for information on honors options.) The name of the major will be Biological Sciences: [Concentration Name]. The requirements are as follows:

A. Prerequisites to All Concentrations
1. Chemistry 120-130
2. Physics 221-222
3. Math 141-142 or 151-152
4. Biology 130 or Botany 110-120
5. Biology 140-240-250

B. A. Major in Speech Pathology consists of Audiology and Speech Pathology 300, 302, 303, 305, 306, 320, 331, 433, 461, 473, and 494; and one course from the following courses: Linguistics 200, 371, 372, 411, 471, or 472.


Applicants for enrollment in clinical practice must submit an application to the departmental Director of Clinical Services. Requirements for enrollment in praacticum 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.

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.

The Biological Sciences Major offers four areas of concentration: Biochemistry and Cellular and Molecular Biology; Ecology and Evolutionary Biology; Microbiology; and Plant Biology. (See section C. below for information on honors options.) The name of the major will be Biological Sciences: [Concentration Name]. The requirements are as follows:

A. Prerequisites to All Concentrations
1. Chemistry 120-130
2. Physics 221-222
3. Math 141-142 or 151-152
4. Biology 130 or Botany 110-120
5. Biology 140-240-250
B. Progression Requirement
A cumulative GPA of at least 2.5 in prerequisite science and math courses is required both to declare and to continue as a Biological Sciences major. Students wishing to declare a major in Biological Sciences will be assigned a faculty advisor in one of the biological science departments in consultation with the student. Declaration of a Biological Sciences major should occur as soon as the student decides on this course of study but not later than three semesters before the expected graduation date. This is necessary in order to ensure that requirements can be met in a timely manner as not all courses are taught every year.

C. Honors Major
An honors option is presently available in Biochemistry and Cellular and Molecular Biology; Ecology and Evolutionary Biology; Microbiology; and Plant Biology concentration areas. Requirements for honors options are listed with the appropriate concentration areas.

D. Concentration Area Requirements
Biochemistry and Cellular and Molecular Biology (BCMB) Additional prerequisite: Computer Science 100. The concentration consists of Chemistry 350-360-369, BCMB 401-402, and at least 18 additional credit hours selected from BCMB courses numbered 300 or above (except BCMB 310 and 410), or from the following courses in other departments: Microbiology 310-319, 410, 411, 420-429, 430, 440; Botany 321, 404; EEB 350, 360, 460. At least two of the 18 credit hours must be selected from the following laboratory courses: BCMB 403, 416, 418, 429 and 452, and Biology 401. At least three of the 18 credit hours must be selected from the following physiology courses: BCMB 440. Botany 321, and Microbiology 310. No more than 9 of the 18 credit hours may be in non-BCMB courses.

An honors option is offered to students with a cumulative GPA in Biological Sciences prerequisite courses of 3.5 or above and who have completed Biology 130-140-240-250. The honors option also requires a substantive research project carried out under the supervision of a BCMB faculty member and a thesis describing the results of that project. The thesis must be approved by the faculty supervisor.

Ecology and Evolutionary Biology
The concentration consists of:
1. Chemistry 350-360-369 or 350, 310-319 or Chemistry 310-319 and BCMB 310.
2. Quantitative Requirement: One course from (note math prerequisites): Math 231 Differential Equations (3) (Prereq. 141-142)
   Math 251 Matrix Algebra I (3) (Prereq. 141-142)
   Math 405 Models in Biology (3) (Prereq. 141-142 or 151-152)
Statistics 201 Introduction to Statistics (3)
Note that Math 141-142 is recommended for students with a strong interest in quantitative ecology and is prerequisite to several courses that satisfy the EEB Quantitative Requirement.
3. Upper Division courses: A total of 24 additional hours is required at the 300 level or above to include at least 15 hours from EEB, and at least one course from each of the following four categories:

Evolution
EBB 460 Evolution
BOT 403 Plant Evolution
Ecology
EBB 446 Oceanography
EBB 470 Aquatic Ecology
EBB 480 Entomological Biology
EBB 431 Plant Ecology
MICRO 470 Microbial Ecology
Organismal Biology
EBB 350 Vertebrate Biology
EBB 360 Invertebrate Biology
EBB 380 Entomology
EBB 450 Comparative Animal Behavior
EBB 474 Ichthyology
EBB 461 Special Topics in Organismal Biology
BOT 310 Plant Morphology
BOT 330 Field Botany
MICRO 310/319 Introduction to Microbiology/ Introductory Lab
Physiology
BOT 321 Introduction to Plant Physiology
BCMB 440 General Physiology
BCMB 415 Neurobiology
MICRO 310 General Microbiology
4. The remaining hours for the EEB concentration can include any of the remaining EEB courses on these lists; other Upper Division EEB courses, or appropriate Upper Division courses offered by the following departments: Anthropology; Botany; Forestry, Wildlife and Fisheries; Geography; Geology; Microbiology; Plant and Soil Sciences. A list of approved appropriate courses may be obtained from the office of either the Division of Biology or EEB. Other courses, related to the student’s determined interests, may be approved by petition to the department and the Division. Courses applied to the major must include at least 4 hours at the 400-level and one laboratory course.

Requirements for the honors option are as follows: (a) fulfill all requirements for the Biological Sciences: EEB major; (b) maintain a GPA of 3.5 in all the 300-level and above courses from the concentration and an overall GPA of 3.2; (c) pass a minimum of 4 hours of EEB 400, Undergraduate Research, during the junior and senior years; (d) pass EEB 401, Senior Thesis (4); (e) pass EEB 490, Undergraduate Seminar.

Microbiology
The microbiology concentration consists of Chemistry 350-360-369, BCMB 410, Microbiology 310-319, 320-329, and 12 additional hours of 400-level Microbiology courses.

An honors option is offered to selected students who 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 requires successful completion of 15 additional hours of 400-level Microbiology courses, including 401 and 402.

Plant Biology
The Plant Biology concentration may be obtained by completing the Biological Sciences prerequisites and Chemistry 350-360-369 or 350, 310-319 or 310-319, BCMB 310, and the following Botany courses:
Botany 310 (4)
Botany 321 (4)
Botany 330 (4)
Botany 403, 404 or 431 (3) or (4)
Botany 400, 441, or 442 (2)
plus 9 additional hours of other Upper Division courses offered by Botany or other life science departments (except Botany 305, 306, or 309). A list of approved courses from other life science departments is available in the Division of Biology office.

Requirements for an honors option are as follows: a) Maintain a GPA of 3.5 in all the 300-level and above courses from the concentration and an overall GPA of 3.2; b) Pass a minimum of 4 hours of Botany 441-442 (undergraduate research) during the junior and senior year; and c) Write a senior thesis that is acceptable to the student’s committee. Students interested in pursuing an honors option should contact the Botany office for details.

A minor includes the following prerequisites and requirements: Prerequisites are Botany 110-120 or Biology 130-140; and Chemistry 120-130. Requirements are Biology 240 and 250; and at least 8 hours chosen from 300- and 400-level courses in Biochemistry, Cellular and Molecular Biology; Botany; Ecology and Evolutionary Biology; and Microbiology. 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 undergraduate research may be credited.

BOTANY
Professors:
E. E. Schilling (Head), Ph.D. Indiana; J. D. Caponetti (Emeritus), Ph.D. Harvard; E. E. Clebsch (Emeritus), Ph.D. Duke; H. R. DeSelm (Retired), Ph.D. Ohio State; A. M. Evans (Emeritus), Ph.D. Michigan; W. R. Herndon (Emeritus, Alumni Distinguished Service Professor), Ph.D. Vanderbilt; L. G. Hickok, Ph.D. Massachusetts; R. W. Holton (Emeritus), Ph.D., Michigan; K. W. Hughes, Ph.D. Utah; B. C. Mullin, Ph.D. North Carolina State; R. H. Petersen (Distinguished Professor), Ph.D. Columbia; O. J. Schwarz, Ph.D. North Carolina State; P. L. Walne (Emeritus), Ph.D. Texas.

Associate Professors:
C. C. Amundsen, Ph.D. Colorado; A. S. Heilman (Emeritus), Ph.D. Ohio State; M. Magiacci, Ph.D. Connecticut; D. K. Smith, Ph.D. Tennessee; B. E. Wofford (Curator of Herbarium), Ph.D. Tennessee.

Assistant Professors:
M. B. Cruzan, Ph.D. SUNY (Stony Brook); A. von Arnim, Ph.D. East Anglia, United Kingdom; R. L. Small, Ph.D. Iowa State.

Lecturer:

Students wishing to emphasize study in this area elect to major in Biology with a concentration in Plant Biology. See the description of the Biology Major under “Division of Biology” for requirements.

CHEMISTRY
Professors:
M. J. Sepaniak (Head), Ph.D. Iowa State; J. L. Adcock, Ph.D. Texas; S. D. Alexandratos, Ph.D. California (Berkeley); D. C. Baker, Ph.D. Ohio State; J. E. Bartmess, Ph.D. Northwestern; J. E. Bloor (Emeritus), Ph.D. Manchester (England); W. E. Bull (Emeritus), Ph.D. Illinois;
J. O. Chambers, Ph.D. Kansas; R.N. Compton, Ph.D. Tennessee; K.D. Cook, Ph.D. Wisconsin; J.A. Dean (Emeritus), Ph.D. Michigan; J.F. Eastham (Emeritus), Ph.D. California (Berkeley); C.S. Feigler, Ph.D. Colorado; W.H. Fitch (Emeritus), Ph.D. Minnesota; F.A. Grimm (Emeritus), Ph.D. Cornell; G.A. Guichon (Distinguished Scientist, Science Alliance Center of Excellence), Ph.D. Université de Paris (France); G.W. Kabalka (Robert H. Cole Professor, Alumni Distinguished Service Professor), Ph.D. Princeton; J.D. Kovac, Ph.D. Yale; M.H. Lietzke (Emeritus), Ph.D. Wisconsin; L.J. Magid, Ph.D. Tennessee; R.M. Magid, Ph.D. Yale; R.M. Pagni, Ph.D. Wisconsin; J.R. Peterson (Emeritus), Ph.D. California (Berkeley); G.K. Schweitzer (Alumni Distinguished Service Professor), Ph.D. Illinois; W.A. Van Hook, Ph.D. Johns Hopkins; E.L. Wehry (Emeritus), Ph.D. Purdue; T.F. Williams (Alumni Distinguished Service Professor), Ph.D. London (England); C. Woods, Ill. Ph.D. North Carolina State; B. Wunderlich (Chair, University of Science and Science Alliance Center of Excellence), Ph.D. Northwestern.

Associate Professors: C.E. Barnes, Ph.D. Stanford; M.D. Dadmun, Ph.D. Massachusetts; R.J. Hinde, Ph.D. Chicago; C.A. Lane (Emeritus), Ph.D. California (Berkeley); F.M. Schell, Ph.D. Indiana; Z.B. Xue, Ph.D. UCLA.

Assistant Professors: S.D. Gilman, Ph.D. Penn State; J.L. Musfeldt, Ph.D. Florida; J.F.C. Turner, Ph.D. Oxford; D.G. Young, Ph.D. Ohio State.

Bachelor of Science in Chemistry

Students who desire to major in chemistry may select from either of two courses of study: Bachelor of Science or Bachelor of Science in Chemistry. Only the latter program is approved by the Committee on Professional Training of the American Chemical Society. It is designed to train students to go directly into positions in the chemical industry or to enter graduate study leading to positions in research and college teaching. A student in the B.S. in Chemistry program should, at the earliest opportunity, consult the Head of the Department 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).

Honors B.S. Major

Candidates for an Honors degree in Chemistry must fulfill all of the requirements for either the B.S. in Chemistry or the regular B.S. degree and must also satisfy the following stipulations: they must complete with grades of C or better Mathematics 141-142; Physics 135-136 or 137-138, and Chemistry 473-483, 400, and 408; and they must have an overall university GPA of at least 3.0 with a GPA in chemistry courses of at least 3.3.

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. Some opportunity exists for students to enter the program later than the end of the freshman year. Interested students should make application to the head of the department at least one semester in advance of the beginning of the first work period. Further information will be supplied on request.

Placement in General Chemistry Sequences

The sequences which meet all of the requirements of a year of General Chemistry and which serve as prerequisites for upper-division courses are 120-130 and 128-138; chemistry majors are strongly urged to take the latter sequence. Courses 100 and 110 emphasize organic and biochemistry, and may not be used as prerequisite for other chemistry courses. Chemistry 150 and 160 are designed to increase the chemistry literacy and consumer knowledge of students and may not be used as prerequisites for any other chemistry course.

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 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 designated for the student 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 neces-

CURRICULUM REQUIREMENTS

<table>
<thead>
<tr>
<th>Freshman</th>
<th>Hours Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chemistry 120-130 or (preferably) 128-138 ...</td>
<td>8</td>
</tr>
<tr>
<td>Mathematics 141-142 ...</td>
<td>8</td>
</tr>
<tr>
<td>English Composition ...</td>
<td>3</td>
</tr>
<tr>
<td>*Foreign Language (intermediate level sequence) ...</td>
<td>6-10</td>
</tr>
<tr>
<td>Distribution ...</td>
<td>3</td>
</tr>
</tbody>
</table>

Sophomore

| Hours Credit |
| Chemistry 240 ... | 2 |
| Chemistry 230 ... | 2 |
| Chemistry 350-360 ... | 6 |
| Chemistry 369 ... | 3 |
| Mathematics 241 and either 231 or 251 ... | 7 |
| Physics 135-136 or 137-138 ... | 8-10 |
| Distribution ... | 3 |

Junior

| Hours Credit |
| Chemistry 310-320 ... | 6 |
| Chemistry 319-329 ... | 3 |

Senior

| Hours Credit |
| Chemistry 473-483 ... | 6 |
| Chemistry 479-489 ... | 4 |
| *Electives ... | 9 |

Total: 125-132 hours

1 Preferably chosen from German, Russian, or Japanese; the College of Arts and Sciences requires that a student demonstrate intermediate-level competence in whatever foreign language is chosen.

2 The distribution requirements of the College of Arts and Sciences 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.

3 It is recommended that a portion of these elective hours be applied to advanced courses in biochemistry and cellular and molecular biology, mathematics, physics, or chemical, metallurgical, and polymer engineering.

4 To be chosen from Chemistry 400, 401, 408, 450, and 490.

5 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. Two programs are designed for students with different career goals, the following paragraphs should be carefully considered before selecting courses. A student who decides to major in chemistry should ask the Arts and Sciences Advising Center for assignment of a faculty advisor in the Department of Chemistry. For further information, contact the Head of the Department of Chemistry, 552 Buehler Hall. For information concerning the Cooperative Program in chemistry, see description of the B.S. program below.

6 Chemistry courses of at least 3.3.
sary, 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.

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

**CHINESE**

See Interdisciplinary Programs (Modern Foreign Languages and Literatures).

**CLASSICS**

**Professors:**

G.C. Gesell (Lindsay Young Professor), Ph.D. North Carolina (Chapel Hill); H.C. Rutledge (Emeritus), Ph.D. Ohio State; D.W. Tandy (Interim Head), Ph.D. Yale.

**Associate Professors:**

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

**Assistant Professor:**

E.H. Sutherland, Ph.D. U.C. Berkeley.

The B.A. Major Concentration in Classical Civilization consists of 27 hours. The required core of the major is Classics 201 plus any 9 hours drawn from the following: Classics 221-222 (3-3), Classics 232-233 (3-3), Classics 253 (3). The remaining 15 hours may be drawn from Greek 261-264, Latin 251-252, or any Classics course numbered above 300, or from History 310, History 311, History 366, or Philosophy 320. Students are encouraged to satisfy the foreign language requirement with Greek or Latin.

A Minor Track in Classical Civilization consists of 18 hours including Classics 201 plus any 6 hours drawn from the following: Classics 221-222; 232-233; 253. The remaining 9 hours may be drawn from Greek 261-264, Latin 251-252, or any Classics course numbered above 300 or above, or from History 310, 311, 366, or Philosophy 320.

The B.A. Major Concentration in Greek consists of 27 hours including 18 hours of Greek language courses numbered above 200 plus 9 hours to be drawn from the following: any courses in the Classics Department (other than Greek 121-122, Classics 201, Classics 273) or History 310-311.

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.

The B.A. Minor Concentration in Latin consists of 27 hours including 18 hours of Latin language courses numbered above 200 plus 9 hours to be drawn from the following: any courses in the Classics Department (other than Latin 111-112, Latin 150, Classics 201, Classics 273) or History 310-311.

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.

**Placement Examination**

Students who transfer to UT 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**

**Professors:**

Robert C. Ward (Head), Ph.D. Virginia; Jack Dongarra, Ph.D. New Mexico; M.A. Langston, Ph.D. Texas A&M; J.H. Poore, Ph.D. Georgia Tech; G.R. Sherman (Emeritus), Ph.D. Purdue; Michael G. Thomason, Ph.D. Duke.

**Associate Professors:**

M.W. Berry, Ph.D. Illinois; J. Gregor, Ph.D. Aalborg (DK); B.J. MacLennan, Ph.D. Purdue; J.S. Plank, Ph.D. Princeton; Padma Raghavan, Ph.D. Pennsylvania State; M.D. Vose, Ph.D. Texas; B.T. Vander Zanden, Ph.D. Cornell.

**Assistant Professors:**

D.W. Straight, Ph.D. Texas; R. M. Wolski, Ph.D. U.C. Davis.

**Instructor:**

J. Wallace Mayo, M.S. Tennessee.

**Major**

Prerequisites to the major include Computer Science 102, 140, 160; Math 141-142; and a two semester laboratory science sequence (Physics 135-136 or Biology or Chemistry or a sequence approved by the Computer Science Department). The major consists of 302, 311, 365, and 380; two of the three courses 340, 360, and 370; Math 241, 251, and 300; English 360, and either an additional 9 hours of upper division Computer Science or an additional 6 hours of upper division Computer Science and Math 231.

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

**Minor**

An undergraduate minor consists of Computer Science 140 and 160, plus 15 hours of 300 and 400 level courses.

**Progression Standards**

Progression into the Computer Science major is based on the availability of space in the laboratories and other resources. Progression requirements are adjusted periodically and current requirements can be determined by consulting with an advisor in the Undergraduate Programs office or by contacting the Computer Science Department directly. Students who enter the College of Arts and Sciences as freshmen or sophomores are expected to apply for the major immediately after attempting 12 hours in Computer Science.

Recent progression standards were:

1. Has completed at least the following three courses at UTK with an average of 3.0 or better: CS 102, 140, and 160 for UTK students. Transfer students’ course work will be evaluated individually.

2. Has achieved an average of 2.5 or better in all Computer Science courses taken at UT 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 disciplined 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 the Undergraduate Programs Office and the Computer Science Department office, 107 Ayres Hall.

**Transfers from Other UTK Programs**

Students in other colleges or majors at UT must apply for progression to the major at the earliest possible date but ideally prior to 75 hours. As a minimum, all students must be admitted to the Computer Science major for at least the last 30 hours of work.

**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 UT 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 AND EVOLUTIONARY BIOLOGY**

**Professors:**

T.G. Hallam (Head), Ph.D. Missouri; C.R.B. Boake, Ph.D. Cornell; D.L. Bunting, II, Ph.D. Oklahoma State; G.M. Burghardt Ph.D. Chicago; H. Delcourt, Ph.D. Minnesota; P.A. Delcourt, Ph.D. Minnesota; A.C. Echternacht, Ph.D. Kansas; D.A. Etnier, Ph.D. Minnesota; N.B. Greenberg, Ph.D. Rutgers; L.J. Gross, Ph.D. Cornell; W.F. Harris, III, Ph.D. Tennessee; J.F. McCracken (Emeritus), Ph.D. Emory; G.F. McCracken, Ph.D. Cornell; M.L. Pan, Ph.D. Pennsylvania; S.E. Riechert, Ph.D. Wisconsin; G.S Sayler, Ph.D. Idaho; T.W. Schultz, Ph.D. Tennessee; D. Simberloff (Gore Hunger Chair of Excellence), Ph.D. Harvard; G. Slacey, Ph.D. Texas (Austin); G.L. Vaughan (Emeritus), Ph.D. Duke.
**ENGLISH**

**Professors:**
- D.A. Carroll (Head), Ph.D. North Carolina; P.G. Adams (Young Professor Emeritus), Ph.D. Texas; E.W. Britton (Emeritus), Ph.D. Illinois; D.R. Cox (Associate Head, Young Professor), Ph.D. Missouri; R.Y. Drake, Jr. (Emeritus), Ph.D. Yale; A.R. Dunn, Ph.D. Washington; A.R. Ensr, Ph.D. Indiana; R.J. Finneman (John C. Hodges Professor), Ph.D. North Carolina; J.H. Fisher (John C. Hodges Professor Emeritus), Ph.D. Pennsylvania; S.B. Garner, Jr., Ph.D. Princeton; J.E. Gill (Emeritus), Ph.D. North Carolina; D.F. Goslee, Ph.D. Yale; N.M. Goslee (Alumni Distinguished and Young Professor), Ph.D. Yale; J.A. Hefferman (Curry Professor), Ph.D. Cambridge; M. Kallet, Ph.D. Rutgers; M.L. Keene, Ph.D. Texas; R.M. Kelly (Young Professor), Ph.D. Duke; B.J. Leggett (Humphreys Professor), Ph.D. Florida; E.L. Leki, Ph.D. Pennsylvania; M.A. Lofaro, Ph.D. Maryland; C. Maland (Young Professor), Ph.D. Michigan; A.R. Penner (Emeritus), Ph.D. Colorado; J.E. Reese (Emeritus), Ph.D. Kentucky; N.J. Sanders (Young Professor Emeritus), Ph.D. Shakespeare Institute, Stratford-on-Avon; D.J. Schneider (J. Douglas Bruce Professor Emeritus), Ph.D. Northwestern; D.M. Scura, Ph.D. North Carolina; W.R. Shurr (Humanities Professor Emeritus), Ph.D. North Carolina; B.T. Stewart (Emeritus), Ph.D. Northwestern; R.E. Stillman, Ph.D. Pennsylvania; J.B. Trahern, Jr. (Alumni Distinguished Professor), Ph.D. Princeton; T.V. Wheeler (Emeritus), Ph.D. North Carolina; J.M. White (Young Professor Emeritus), M.A. Cambridge; N. Wright (Emerita), Ph.D. Yale; J.P. Zomchick, Ph.D. Columbia.

**Associate Professors:**

**Assistant Professors:**
- M. Anderson, Ph.D. Vanderbilt; J.L. Black, Ph.D. Toronto; J. Dickson, Ph.D. Princeton; J.O. Evely, Ph.D. Duke; D.R. Geis, Ph.D. Michigan; H. Hirschfeld, Ph.D. Duke; M. Knight, M.F.A. Virginia; K. Mostern, Ph.D. California (Berkeley); M.J. Reiff, Ph.D. Kansas.

**Instructors:**
- G. Albrighton, Ph.D. North Dakota; E. Bailey, Central Arkansas; L. Berry, M.A. Tennessee; E. Bledsoe, Ph.D. Vanderbilt; J. Burton, Ph.D. SUNY; P.A. Tschantz, M.A. New Mexico State.

**Prerequisites and Corequisites**
One two-semester sequence chosen from the following groups:
- English 201-202 (British Literature);
- 221-222 (Literature of the Western World);
- 231-232-233 (American Literature); 251-252-253 (Introduction to literary genres).

**Major Requirements**
The English major consists of ten courses at the 300-400 level in one of the following concentrations:

**Creative Writing**
- (1) a two-course sequence in creative writing; (2) two other writing courses; (3) four courses in literature, two of which must be before 1900; (4) one course in language, theory, cultural, ethnic, or gender studies.

**Literature**
- (1) English 376 (Colloquium in Literature), to be taken, if possible, near the beginning of the student’s major program; (2) four courses in literature before 1900, including at least two courses before 1800; (3) one course in American literature; (4) one course in nineteenth-century literature; (5) one course in language, theory, cultural, ethnic, or gender studies; (6) two or more courses from any of the department’s offerings, including criticism, film, folklore, language, literature, rhetoric, and writing. Courses may count in more than one category.

**Rhetoric and Writing**
- (1) a three-course package in rhetoric and writing; (2) one other course in rhetoric or writing; (3) four courses in literature, two of which must be before 1900, and at least one of those before 1800; (4) one course in language, theory, cultural, ethnic, or gender studies; (5) one course from any of the department’s offerings, including criticism, film, folklore, language, literature, rhetoric, and writing.

See departmental brochure, Undergraduate Study in English, for a list of courses that satisfy the distribution, package, and sequence requirements for the various areas.

**Individualized Program**
The Director of Undergraduate Studies is empowered to approve individualized programs developed by students in consultation with their academic advisor.

**Honors**
For students who qualify, the English Department offers specially designed courses at the freshman, sophomore, junior and senior levels. The freshman and sophomore honors courses are enriched versions of regular sections in composition, and in American and British literatures. To be given “Honors” in English on the transcript, a student must have achieved a 3.0 or better GPA, a 3.5 or better grade point in English courses, and grades of A or B in English 398 and 498.

An English Minor consists of at least 15 semester hours of English courses at the 300-400 level.

An English Minor with Technical Communication Emphasis consists of at least 15 semester hours of English courses chosen from the following: (1) at least three courses in technical communication chosen from 355, 360, 371, 372, 455, 460, 462, 466, 470, 471, 472, 484, 485, 495, 496; and (2) one other course in one of the following categories: (a) course in expository writing, argumentative writing, language, rhetoric, or technical communication; (b) one course in expository writing, argumentative writing, language, rhetoric, or technical communication.

See departmental brochure, Undergraduate Study in English, for a list of courses that satisfy the distribution, package, and sequence requirements for the various areas.

**Certification for Teaching**
Students planning to teach English in public schools should consult the Certification Clerk, Room 212, Claxton Education Building.

**Graduate Study**
Students wishing to enter a graduate program in English should address inquiries to the Dean of the Graduate School. To be accepted for graduate study in English, the student should in general have had at least eighteen semester hours 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 Modern Foreign Languages and Literatures.

GEOGRAPHY

Professor: Ph.D. Hettner, Ph.D. Washington; D. Botz, Ph.D. Harvard; G. Peck, Ph.D. California (Berkeley);


Associate Professors: M. L. McKeown, Ph.D. Tennessee; J. E. M., Ph.D. Oregon; E. V. R., Ph.D. Oregon.

Assistant Professors: L. A. Norrell (Bernadotte Schmitt Professor), Ph.D. Vanderbilt; J. G. Utley (Emeritus), Ph.D. Illinois; L. A. McKeown (Emeritus), Ph.D. Oregon.

GEOLOGICAL SCIENCES

Professors: W. M. Dunne (Head), Ph.D. Bristol; T. W. Broadhead, Ph.D. Iowa; D. W. Byerly, Ph.D. Pennsylvania; S. G. D. Brown, Ph.D. Wisconsin; R. D. Hatcher (UT Knoxville/ORNL Distinguished Scientist), Ph.D. Tennessee; O. C. Kopp (Emeritus), Ph.D. Columbia; T. C. Labotka, Ph.D. Caltech; H. Y. D. McSweeney (Distinguished Professor of Science), Ph.D. Harvard; K. C. Misra, Ph.D. Western Ontario; L. A. Taylor, Ph.D. Lehigh; K. R. Walker, Ph.D. Yale.

Associate Professors: G. M. Clark, Ph.D. Pennsylvania State; P. A. Delcourt, Ph.D. Minnesota; L. D. McKay, Ph.D. Waterloo; M. L. Kinney, Ph.D. Yale; C. L. Mora (Carden Professor), Ph.D. Wisconsin; R. T. Williams, Ph.D. V. P. I.

Assistant Professors: L. C. Kah, Ph.D. Harvard; Maria Uhle, Ph.D. Virginia.

Prerequisites to a B.S. Major are Geology 101-102; Chemistry 120-130; Mathematics 141-142 or 147-148; plus one two-semester sequence and one additional course from Physics 125-136 and Biology 130-140.

Major Requirements Geology 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 UT field camp or an 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 and 102 or 103. Geology courses: at least 16 hours of courses numbered 300 or higher, excluding 303 and 401. A maximum of 3 hours of 401 may be counted toward the minor.

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 Arts and Sciences College Distribution requirements are specified. Required coursework includes: Geology 310, 320, 330, 340, 370, 440, 450, 455, 460, 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, 532 or 533 or Environmental Engineering 535; Plant and Soil Science 210; English 481; 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.

Honors Students who have completed five 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 3 semester hours beyond the normal requirements of Geology 451, 452, 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 must be submitted to the Department of Geological Sciences. A GPA of 3.0 must be maintained throughout matriculation. Interested students should consult their advisor for details about participation.

GERMAN
See Modern Foreign Languages and Literatures.

GREEK
See Classics.

HEBREW
See Religious Studies.

HISTORY

Professors: W. B. Wheeler (Head), Ph.D. Virginia; P. H. Bergeron, Ph.D. Vanderbilt; E. V. Chmelenski (Emeritus), Ph.D. Harvard; W. Culler, Ph.D. Texas; W. W. Farris, Ph.D. Harvard; J. R. Finger (Emeritus), Ph.D. Washington; A. G. Haas, Ph.D. Chicago; Y. P. Hao (Lindsay Young Professor), Ph.D. Harvard; R. W. Haskins (Emeritus), Ph.D. California (Berkeley); M. M. Klein (Alumni Distinguished Service Professor, Lindsay Young Professor and Emeritus), Ph.D. Columbia; A. Mayhew (Interim Vice Provost), Ph.D. Texas; H. Moser, Ph.D. Wisconsin; R. J. Norrell (Bernadotte Schmitt Professor), Ph.D. Virginia; L. A. Ratner (Emeritus), Ph.D. Cornell; J. G. Utley (Emeritus), Ph.D. Illinois; L. A. McKeown (Emeritus), Ph.D. Oregon.

Associate Professors: M. L. McKeown, Ph.D. Tennessee; J. E. M., Ph.D. Oregon.

Assistant Professors: J. Appier, Ph.D. California (Riverside); K. Brosnan, Ph.D. Chicago; J. F. D. S., Ph.D. Arizona; L. Glover, Ph.D. Kentucky; V. G. Lulevsic, Ph.D. Pennsylvania; G. K. Piehler, Ph.D. Rutgers; J. Sahadeo, Ph.D. Illinois.

The department's program is designed to provide students with a knowledge of their cultural traditions and of their world, past and present, and thus to prepare them for the responsibilities of citizenship in today's complex society. Students take history courses to develop their skills in thinking, reading, writing and speaking; to understand the links between past, present and future; and to assist them in their search for personal identity.

B.A. Major Majors in history should prepare their programs in consultation with a department faculty advisor. A student may not declare a history major until he/she has completed both semesters, with a grade of C+ or better in each course, of a survey chosen from the following: 221-222, 227-228, 241-242, 247-248, 251-262; or any two one semester courses from any of these sequences. AP (with a score of 4
or 5) or transfer credit is acceptable to fulfill this requirement. History 241-242 (or honors equivalent) or 261-262 are prerequisites to a major which consists of 30 hours, including (1) 6 hours of History 221-222 (or the honors equivalent); and (2) 24 upper-division hours, including: (a) one course in European history; (b) one course in United States history; (c) two courses in the history of Latin America, Asia, or Africa, at least one of which must be in Asia or Africa; and (d) one additional course dealing predominantly with a period prior to 1750.

History 241-242 (or honors equivalents) are prerequisites to a minor which consists of 15 hours of courses numbered 200 or above, including at least: (1) 6 hours in United States history; and (2) 9 upper-division hours.

**History for Non-Majors**

The department welcomes non-majors in its courses. Few history courses have formal prerequisites.

**Honors Program**

The Department of History offers honors sections of the Western Civilization and United States history survey courses. Some entering freshmen are invited to participate; other interested students may apply. These survey courses are open to non-majors. A grade of C+ or less in any part of the freshman-sophomore honors sequence will render the student ineligible for further honors work in history. In addition, the major requires successful completion of 307 and a senior thesis (407-408) with a grade of B or above. Altogether the honors major consists of 33 hours, including 30 hours as outlined in the B.A. Major above, plus 307. All juniors who have declared history majors with an overall GPA of at least 3.0 are invited to join the Junior-Senior Honors Program. Students interested in honors work at any level should consult the department’s honors coordinator.

### INTERDISCIPLINARY PROGRAMS

**Director:** John Zomchick

**College of Arts and Sciences**

In keeping with the philosophy that integration of knowledge is as important as proficiency in a given field, the College of Arts and Sciences has combined the resources of several departments to offer a series of interdisciplinary majors and minors. These programs are as follows: African and African-American Studies, American Studies, Ancient Mediterranean Civilizations, Asian Studies, Cinema Studies, Comparative Literature, Environmental Studies, Judaic Studies, Latin American Studies, Linguistics, Medieval Studies, Urban Studies, and Women’s Studies. See individual program descriptions below for the major and/or minor requirements.

### AFRICAN AND AFRICAN-AMERICAN STUDIES

**Chair:** John O. Hodges, Religious Studies.

**Associate Professor:** Asafa Jalata, Sociology, Ph.D. State University of New York (Binghamton).

**Major Concentration** African-American Studies 201-202 are required in the concentration which consists of 24 hours from the African-American Studies curriculum. At least 15 hours must represent upper division credits. Majors are required to take AAAS 431, preferably in their senior year. A maximum of 6 hours in AAAS 492 and 493 combined can be applied toward the AAAS major. In planning their program majors must include courses from at least 2 other departments which crosslist courses with African and African-American Studies in addition to the AAAS core course offerings.

**Minor** African-American Studies 201-202 are required in the minor which consists of 15 hours at least 9 of which must be upper division credits. A maximum of 3 hours in AAAS 492 and 493 combined can be applied to a minor. In planning their programs minors must include courses from at least 2 other departments which crosslist courses with African and African-American Studies in addition to the AAAS core course offerings.

### AMERICAN STUDIES

**Chair:** Benita J. Howell, Anthropology.

**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, and nine additional hours from at least two different disciplines.

### ASIAN STUDIES

**Chairs:** Rosalind Gwynne, Religious Studies; Yang Zhong, Political Science.

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 (Islamic 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:** Christine Holmlund, Modern Foreign Languages and Literatures.

The **Cinema Studies Minor** consists of 15 hours, including Cinema Studies 281; 3 hours chosen from Cinema Studies 235, 236, or Broadcasting 330; and 9 additional hours from any courses in Cinema Studies, courses cross-listed with Cinema Studies, or from the following list of approved courses: Broadcasting 275 Introduction to Broadcasting (3); Broadcasting 330 Audio/Video Production (3); Broadcasting 430 Electronic Field Production (3). It is strongly recommended that Cinema Studies 281 Introduction to Film Studies be taken before any other courses in the minor.

For further information about the minor, consult the chairperson of the Cinema Studies Program. Courses related to Cinema Studies and not listed above may be applied to the minor with the approval of the chair of the program.

### COMPARATIVE LITERATURE

**Chair:** Carolyn R. Hodges, Modern Foreign Languages and Literatures.

A **Major Concentration in Comparative Literature** consists of 27 hours including Comparative Literature 202 and 401-402, and 9 hours of literature in a foreign language in courses numbered 300 or above. 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, Modern Foreign Languages and Literature, and Religious Studies. Certain courses in Philosophy, Theatre, and Interdisciplinary Programs 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 202 and either Comparative Literature 401 or 402, 6 hours of literature in a foreign language in courses numbered 300 or above, and 6 hours of literature courses numbered 300 or above in a different department. These 6 hours may be either in English or in a foreign language and should be chosen from the following departments: English, Modern Foreign Languages and Literatures, and Religious...
Studies. Certain courses in Philosophy, Theatre, and Interdisciplinary Programs may be substituted with the approval of the chairperson of the Comparative Literature Program. Minors in comparative literature are strongly encouraged to continue study in a foreign language beyond the minimum requirement.

**ENVIRONMENTAL STUDIES**

*Chair: Michael McKinney, Geological Sciences.*

The **Major Concentration** in Environmental Studies provides sound scientific, socio-economic, and philosophical background for understanding the earth’s environment with an opportunity to minor in one of the many environmentally related curricula offered by the various colleges within the University.

**Prerequisites to a B.A. Major** in Environmental Studies are: Biology 130-140; or Botany 110-120; Chemistry 120-130; Geology 101; Geography 131; Mathematics 123-125 or 141-142 or 151-152; and Economics 201.

The **Major Concentration** consists of a core and a specialty. The core includes: Biology 250; Sociology 360; Philosophy 346; Economics 462; Agriculture 333; History 373; Geography 436; or Plant and Soil Science 432. The specialty is satisfied by meeting the course requirements listed for a minor in any one of the environmentally related curricula offered by the various colleges of the University with a grade of “C” or better. The specialty will require 15-18 hours as specified by the chosen department. Curricula that would be suited for an Environmental Studies major include, but are not limited to: Plant and Soil Sciences, Wildlife and Fisheries Science, Forestry, Chemistry, Geography, Geology, Biology, Sociology, Economics, Political Science, Communications, or Business Administration.

**JUDAIC STUDIES**

*Chair: Gilya Gerda Schmidt, Religious Studies.*

The **Major Concentration** in Judaic Studies offers a course of study that treats Judaism as a historically evolving and culturally specific enterprise. The concentration explores Jewish culture, religion and heritage through literature, philosophy and history. A multi-disciplinary combination of courses permits critical reflection about topics and issues in a world civilization and cross-cultural context.

A major concentration consists of at least 27 hours at the 300 level or above, distributed as follows: (a) Religious Studies 381, History 370, and 12 hours from Religious Studies 311, 312, 320, 385, 386, 405; (b) 9 hours selected from Art History 425, 431, 475; German 350; History 369, 395; Philosophy 322. Students should contact the program advisor early in planning a Judaic Studies major.

The **Judaic Studies Minor** consists of Religious Studies 381, History 370, and 9 hours selected from the Judaic Studies Major Concentration. It is recommended that students minoring in Judaic Studies discuss their program with a member of the Judaic Studies Committee.

**LANGUAGE AND WORLD BUSINESS**

For a complete list of requirements, see Modern Foreign Languages and Literatures.

**LATIN-AMERICAN STUDIES**

*Chair: Todd Diacson, History.*

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 language/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’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.

For further information, consult the Chairperson of the Latin American Studies Program.

**LEGAL STUDIES**

*Chair: James A. Black, Sociology.*

The major in Legal Studies places the study of law within the context of a liberal arts education. This major offers a course of study that treats law as a historically evolving and culturally specific enterprise. The concentration seeks to attract students interested in exploring the ways in which law and legal institutions shape and are shaped by values, behavior, communication patterns, and organization of social, economic, and political systems. A multidisciplinary combination of courses permits critical reflection on how law and social life are interconnected historically and culturally. The program is designed to provide education about law and legal culture. It should not be viewed as a preferred avenue for admission to law school.

Specific objectives of the program are to:
1. Foster an appreciation for the larger context within which law-based phenomena are developed and nourished.
2. Comprehend the connections between law and other components of society.
3. Promote an interest in studying how law shapes, and is shaped by the larger social, behavioral, political, historical, and cultural context.
4. Present an interdisciplinary program that speaks to the need to address problems about law that will face us in the next century.
5. Offer an integrated program drawn from existing curriculum and faculty.

The concentration consists of 27 hours, including Sociology 455 Society and Law and 24 hours of upper division courses distributed among five categories: (1) analysis—3 hours from Communications 300, English 496, Sociology 331; (2) processes—Sociology 451, and 3 hours from Political Science 430,442; (3) perspectives—3 hours from English 490, Political Science 330, Psychology 424; (4) historical and global dynamics—3 hours from Classics 362, Political Science 470; (5) issues—6 hours from Communications 400, Philosophy 344, Political Science 431, Speech Communication 469, Women’s Studies 340. The remaining three hours are to be chosen from one of the five categories or an approved elective.

Students should consult program advisors early in planning a Legal Studies major. It is strongly recommended that Sociology 455 Society and Law, be taken before selecting electives. Other law-related courses consistent with the purposes and objectives of the major may be approved through consultation with the Chair of the Legal Studies Committee.

**LINGUISTICS**

*Chair: Bethany K. Dumas, English.*

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 possibility 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. Audiol- ogy 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 (5.5) (Japanese); Religious Studies 309-310 (3.3) (Hebrew); and five hours of non-Indo-European language sequences approved by the Linguistics Committee (required).

**Concentration** 30 hours distributed as follows: (a) 21 hours composed of Audiology and Speech Pathology 305, English 371, 372, and 471; French, German, Russian or Spanish
MEDIEVAL STUDIES

Chair:
Laura L. Howes, English.

A Major Concentration in Medieval Studies consists of Medieval Studies 201 and 403 and 21 hours of upper-division courses concerned primarily with the medieval experience, divided among the following three categories: (1) history, philosophy, political science, and religious studies; (2) language and literature; and (3) the arts: history of art, architecture, music, and speech and theatre. Courses should either be related in a particular 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 of art and 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 on to graduate school are strongly advised to supplement their Medieval Studies concentration with extensive work in one of the traditional disciplines.

A Minor in Medieval Studies consists of Medieval Studies 201 and 403 and 12 additional hours distributed among the categories listed above for the major. Each student’s program, major or minor, must be approved in advance by the Medieval Studies Coordinating Committee chairperson.

Category #1 History, Philosophy, and Political Science: History 312 Medieval History: 300-1100 (3); History 313 Medieval History: 1100-1400 (3); History 330 History of England to 1688 (3); History 334 History of Germany to 1815 (3); History 369 History of the Middle East (3); History 474 Studies in Medieval and Early European History (3); 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 History 425 Early Christian and Byzantine Art to 1350 (3); Art 441 Northern European Painting, 1350-1600 (3); Art History 431 Medieval Art of the West, 1000-1450 (3); Art History 451 The Art of Italy, 1250-1400 (3); and Music History 210 History of Music to 1750 (3).

URBAN STUDIES

Chair:
James A. Spencer, Urban and Regional Planning

Urban studies involves the interdisciplinary study of cities and their regions. Faculty from Planning, Architecture, Geography, History, Political Science, Sociology, History, Business participate in the program which has variable emphases from the relationship of the individual to the environment, the process of problem solving in an urban context, or the nature of current urban issues.

Prerequisites to the program are Economics 201 or 207, Political Science 101 or 102 or 117, and Sociology 110 or 120. Courses required for the major are Urban Studies 250, 350 and 460, plus 3 hours from each of these groups:

Group 1—History and Theory: Architecture 410, Urban Studies 363, 401, 454

Group 2—Physical Issues and Design: Urban Studies 323, 441, 464

Group 3—Planning and Policy: Planning 446, Urban Studies 321, 402

To complete the 30 hours required for the major, an additional 12 hours should be completed from any of the three groups or from the following list of approved courses: African and African-American Studies 480; Architecture 403, 404, 405; Classics 334; Economics 323, 361, 462, 471, 472; Geography 310, 411, 412, 449; Logistics and Transportation 302; Marketing 310, 320; Political Science 340; Sociology 340, 343, 344, 345, 360, 442, 462; Speech Communication 420; Statistics 201; Urban Studies 450, 481, 482, 493.

A Minor in Urban Studies consists of 18 semester hours, including Urban Studies 250 and 350, plus additional semester hours from Group 1, 2, 3 or 4 above. For more information contact the chairperson of Urban Studies.

WOMEN’S STUDIES

Chair:
Nancy Goslee, English.

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 Arts and Sciences 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 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 (220), Emergence of the Modern American Woman (310), at least three hours of Independent Study (493), and at least one course from each of the three major areas: Women’s Heritage (383, 432, 453, 466, 483), Contemporary Issues (375, 382, 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 (220), and an additional 12 hours of upper-division Women’s Studies courses. Approved special topics courses related to Women’s Studies may also be applied toward a major or a minor.

ITALIAN

See Modern Foreign Languages and Literatures.

JAPANESE

See Modern Foreign Languages and Literatures.

JUDAIC STUDIES

See Interdisciplinary Programs.

LATIN

See Classics.

LATIN AMERICAN STUDIES

See Interdisciplinary Programs.

LEGAL STUDIES

See Interdisciplinary Programs.

LINGUISTICS

See Interdisciplinary Programs.
MATHEMATICS

Professors: J.B. Conway (Head), Ph.D. Louisiana State; V. Alexiades, Ph.D. Delaware; D.F. Anderson, Ph.D. Chicago; J.S. Bradley (Emeritus), Ph.D. Iowa; R.J. Daverman, Ph.D. Wisconsin; D.E. Dobbs, Ph.D. Cornell; G. Dydak, Ph.D. D. 1972 (Poland); H. Frandsen (Emeritus), Ph.D. Illinois; L.J. Gross, Ph.D. Cornell; T.G. Hallam, Ph.D. Missouri; D.B. Hinton, Ph.D. Tennessee; L.S. Husch, Ph.D. Florida State; K. Johansson, Ph.D. Bielefeld, Germany; G. Samuel Jordan, Ph.D. Wisconsin; Ohaness Karakashian, Ph.D. Harvard; B.S. Kuperschmidt (UTSI), Ph.D. M.I.T.; Suzanne Lenhart, Ph.D. Kentucky, Robert M. McConnel, Ph.D. Duke; Balram S Rajput, Ph.D. Illinois; S. Mulay, Ph.D. Purdue; S. Richter, Ph.D. Michigan; K.C. Reddy (Space Institute, Tullahoma), Ph.D. Indian Institute of Technology; J. Rosinski, Ph.D. Wroclaw University; P.W. Schafer, Ph.D. Maryland; S.M. Serbin, Ph.D. Cornell; Henry Simpson, Ph.D. California Institute of Technology; R.P. Soni, Ph.D. Oregon State; W.R. Wade, Ph.D. California (Riverside); C.G. Wagner, Ph.D. Duke.

Associate Professors: C. Collins, Ph.D. Minnesota; X. Feng, Ph.D. Purdue; A. Freire, Ph.D. Princeton; S. Gavrilets, Ph.D. Moscow State; Bo Guan, Ph.D. Massachusetts; K. R. Kimble (Space Institute, Tullahoma), Ph.D. Ohio State; Y. Kuo, Ph.D. Cincinnati; C. P. Plaut, Ph.D. Maryland; D.A. Polignone, Ph.D. Virginia; J. Smith, Ph.D. California (Berkeley); B. K. Soni (Space Institute, Tullahoma), Ph.D. Texas; J. Xiong, Ph.D. North Carolina, Chapel Hill.

Assistant Professors: X. Chen, Ph.D. Case Western Reserve; R. Davis, Ph.D. Tennessee; J. Dwyer, Ph.D. Ireland; Y. Kachi, Ph.D. Tokyo; G. Matthews, Ph.D. Louisiana State; T. Schulze, Ph.D. Northwestern; P. Tzermias, Ph.D. California (Berkeley).


All entering freshman and all other students who have not completed a college level mathematics course, except students who have received AP calculus credit, must take the UT mathematics placement exam before enrolling in a mathematics course. Placement in the appropriate course will be determined by the score on the exam. Ordinarily a student will not be allowed to enroll in a course at a level above that determined by his or her placement exam score. In exceptional circumstances, 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 The undergraduate Mathematics major is designed to provide a broad introduction to mathematics which serves as preparation for a wide variety of careers. The requirements below, which provide a solid introduction to four of the core components of mathematics, should be regarded as minimal preparation for careers in mathematics or closely related mathematical fields. Students with special interests and talents are encouraged to take as many other mathematics courses as their schedule permits.

Prerequisites to the Major are Mathematics 141-142 (or Honors version: 147-148) and 171 and 173 or 177.

Major Requirements consists of 37 semester hours of mathematics courses including(1) Math 231, 241, or (247), 251 (257), 300, and (2) eight additional courses at the 300-400 level. Students who have received AP calculus credit, must take the UT mathematics course, except students who have received AP calculus credit. The grade in each of these courses must be at least C. It is recommended that students enroll in courses at the 300-400 level.

Total: 124 minimum hours

SEnior
Mathematics 445-46 (or 447-48) and 455-55 (or 457-58) .......................... 12
Upper Level Distribution Requirement (may include Math 400 or 411) .......................... 6
Electives (must include at least 7 upper division hours) .................................................. 11

Total: 124 minimum hours

SECONDARY EDUCATION

Freshman
Mathematics 141-142 (or 147-148) and 171 .......................... 11
English Composition ................................................. 6
Foreign Language (beginning level, preferably French, German, or Russian) .................. 6-8
Lab Science Distribution Requirement .................................................. 6

Sophomore
Mathematics 231, 241 (or 247), 251 or (257), and 300 .................................................. 13
Non-US History Distribution Requirement .................................................. 6
Social Science Distribution Requirement .................................................. 6
Foreign Language (completion of secondary level) .................................................. 6-8
Elective ............................................................. 3
Junior
Mathematics 323, 351, 341, 371 .................................................. 12
Humanities Distribution Requirement .................................................. 6
Social Science Distribution Requirement .................................................. 6
Psychocultural Studies .................................................. 6

Honors B.S. Major Candidates for an honors degree in Mathematics must fulfill all of the requirements for the B.S. degree in Mathematics, but take nine courses (rather than eight) at the 300-400 level and take two 400 level two-semester sequences (rather than one). The grade point average computed on the nine 300-400 level courses mentioned above will determine the honors category: GPA at least 3.4—Honors; GPA at least 3.6—High Honors; GPA at least 3.8—Highest Honors.

Students with more than nine courses at the 300-400 level may designate which courses will be used to compute these GPAs.

Minor Prerequisite to a minor is Mathematics 141-142 (or 147-148). The minor consists of (1) Math 231, 241, 251, 300 and (2) nine additional hours at the 300-400 level (except 399, 401, 405, and 490). CS 370 may be substituted for three of those hours. The grade in each of these courses must be at least C.

Preparations for Graduate School

Freshman
Mathematics 141-142 (or 147-148) and 171 .......................... 11
English Composition ................................................. 6
Foreign Language (beginning level, preferably French, German, or Russian) .................. 6-8
Lab Science Distribution Requirement .................................................. 6

Sophomore
Mathematics 231, 241 (or 247), 251 or (257), and 300 .................................................. 13
Non-US History Distribution Requirement .................................................. 6
Social Science Distribution Requirement .................................................. 6
Foreign Language (completion of secondary level) .................................................. 6-8
Elective ............................................................. 3

Junior
Mathematics 323 (or 423), 431 (or 421), 371, 435 (or 461) .................................................. 12
Humanities Distribution Requirement .................................................. 6
Social Science Distribution Requirement .................................................. 6

Total: 124 minimum hours

Preparation for Graduate School

Freshman
Mathematics 141-142 (or 147-148) and 171 .......................... 11
English Composition ................................................. 6
Foreign Language (beginning level, preferably French, German, or Russian) .................. 6-8
Lab Science Distribution Requirement .................................................. 6

Sophomore
Mathematics 231, 241 (or 247), 251 or (257), and 300 .................................................. 13
Non-US History Distribution Requirement .................................................. 6
Social Science Distribution Requirement .................................................. 6
Foreign Language (completion of secondary level) .................................................. 6-8
Elective ............................................................. 3

Junior
Mathematics 323 (or 423), 413 (or 421), 371, 435 (or 461) .................................................. 12
Humanities Distribution Requirement .................................................. 6
Social Science Distribution Requirement .................................................. 6

Total: 124 minimum hours

Preparation for Graduate School

Honors B.S. Major Candidates for an honors degree in Mathematics must fulfill all of the requirements for the B.S. degree in Mathematics, but take nine courses (rather than eight) at the 300-400 level and take two 400 level two-semester sequences (rather than one). The grade point average computed on the nine 300-400 level courses mentioned above will determine the honors category: GPA at least 3.4—Honors; GPA at least 3.6—High Honors; GPA at least 3.8—Highest Honors.

Students with more than nine courses at the 300-400 level may designate which courses will be used to compute these GPAs.

Minor Prerequisite to a minor is Mathematics 141-142 (or 147-148). The minor consists of (1) Math 231, 241, 251, 300 and (2) nine additional hours at the 300-400 level (except 399, 401, 405, and 490). CS 370 may be substituted for three of those hours. The grade in each of these 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.

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:
R.N. Moore (Head), Ph.D. Texas (Austin);
R.W. Beck (Emeritus), Ph.D. Wisconsin; J.M. Becker, Ph.D. Cincinnati; D. Bemis, Ph.D. Cornell; D.A. Brian, Ph.D. D.V.M. Michigan State; T.C. Montle, Ph.D. Maryland; W.S. Rigsby, Ph.D. Yale; B.T. Rouse; Ph.D. Guelph (Canada); B.V.Sc., Bristol (England); Dwayne C. Savage, Ph.D. California (Berkeley); G.S. Sayler, Ph.D. Idaho; Gary Stacey, Ph.D. Texas (Austin); D.C. White (Distinguished Scientist), M.D. Tufts, Ph.D. Rockefeller; J.M. Woodward (Emeritus), Ph.D. Kansas.

Associate Professors:
D.L. Hacker, Ph.D. Michigan State; Pam Small, Ph.D. Stanford; H. Zaghrouni, Ph.D. University of Paris.

Assistant Professors:
E. Urbach, Ph.D. M.I.T.; S. Wilhelm, Ph.D. University of Western Ontario.

Students wishing to emphasize study in this area elect to major in Biology with a concentration in Microbiology. See the description of the Biology Major under “Division of Biology” for requirements.

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 Arts and Sciences curricula section of this catalog, and who have been approved by the Medical Technology Admissions Committee.

MODERN FOREIGN LANGUAGES AND LITERATURES

Professors:
C. R. Hodges (Head), Ph.D. Chicago;
P.E. Barrette, Ph.D. California (Berkeley);
P. Brady (Shumway Chair of Excellence), Ph.D. Universite de Paris (Sorbonne);
E.J. Campion, Ph.D. Yale; C.W. Cobb (Emeritus), Ph.D. Tulane; J.C. Elliott (Emeritus), M.A. Illinois; J.E. Fallen (Emeritus), Ph.D. Pennsylvania; D.M. Fieno (Emeritus), Ph.D. Indiana; M.H. Handelman, Ph.D. Florida; W.H. Hefflin, Ph.D. Florida State; T.B. Irving (Emeritus), Ph.D. Princeton;
H. Krazt (Emeritus), Ph.D. Ohio State;
K.D. Levy, Ph.D. Kentucky; F.D. Maurino (Emeritus), Ph.D. Columbia; C. J. Mellor, Ph.D. Chicago; J.C. Osborne (Emeritus), Ph.D. Northwestern; C. Pirsky (Emeritus), Ph.D. California (Berkeley); U.C. Ritzenhof (Emerita), Ph.D. Connecticut; Oscar Rivera-Rodas, Ph.D. California; J.B. ROMEISER (Emeritus), Ph.D. Vanderbilt; A.M. Vazquez-Bigi (Emerita), Ph.D. Minnesota; A.H. Wallace (Emeritus), Ph.D. North Carolina; Yulan Washburn, Ph.D. North Carolina.

Associate Professors:
M. Beauvois, Ph.D. Duke; E. F. Brizio-Skow, Ph.D. Washington; B. Creel, Ph.D. California; S. DiMaria, Ph.D. Wisconsin; C.K. Duncan, Ph.D. Illinois; C. Holmlund, Ph.D. Wisconsin; J. LaCure, Ph.D. Indiana; N.A. Laquen, Ph.D. Wisconsin; D. Lee, Ph.D. Stanford; C. Nakuma, Ph.D. Universite de Paris (Sorbonne); N. Peruvukhina, Ph.D. Bryn Mawr; D.J. Young, Ph.D. Texas.

Assistant Professors:
A. Ayo, Ph.D. Arizona; S. Blackwell, Ph.D. Indiana; N. Cruz-Camara, Ph.D. SUNY (Buffalo); C. Cox (Emerita), M. A. Pennsylvania; L. Essil Ph.D. Brown; P. Hoeyng, Ph.D. Wisconsin; E. Johnson, Ph.D. Tennessee; G. Kaplan, Ph.D. Pennsylvania; H. Maxim, Ph.D. Texas; M. McAlpin, Ph.D. Columbia; S. Onhansorg, Ph.D. McGill; E. Silva Filho, Ph.D. North Carolina; J. Williams, Ph.D. Ohio State; P. Wilson (Emerita), M.A. Tufts; Chi-Hung Yim, Ph.D. Yale.

The French Major consists of 30 hours in courses numbered 333 and above. (French 300 does not count toward the major, but is recommended for students needing grammar review). All majors must have the following courses (or their equivalent with consent of the department): 333-334, 351-352, 421, 422, 440. Literature concentration students must also have 6 hours of literature at the 400 level, plus a 3-hour language-oriented or civilization course. Language concentration students must also have 6 hours of language-oriented or civilization course, plus a 3-hour literature course at the 400 level. Exceptional students may substitute a 400-level course for either 333 or 334, with consent of the department.

German Major

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 30 hours of German in 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 241-242 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.

B.A. Honors in German

The Honors B.A. consists of at least 32 hours of German in courses numbered above 300, including completion of German 477 or 478 with a grade of A or B+. To be admitted to the Honors Program, students must present a cumulative grade point average in German major courses of at least 3.5 and have an overall GPA of not less than 3.2. Students should apply for admission to the B.A. Honors Program at the end of their junior year. Application forms are available in the department office. Since courses taken abroad are not calculated in the overall average, the department reserves the right to make a judgment on the appropriateness of a study-abroad curriculum for acceptance as honors work and to require other 400-level courses as a condition for the degree.

The Italian Major consists of 30 hours in courses numbered 311 and above. The Russian Major has two options, a traditional major with a literary emphasis and an area studies major. Russian 201-202 is a prerequisite for both. Majors should prepare their programs in consultation with the departmental faculty advisor. Both options consist of 30 hours of courses, and both require Russian 311-312 and 401-402. The major with literary emphasis also requires Russian 301-302, 451-452, and 6 hours from Russian 221, 222, 320, 371, 372, or other courses numbered above 300. The additional requirements for the area studies major are Russian 371-372; 3 or more credits chosen from Russian and East European Studies 410 or Russian 221, 222, and Russian courses numbered 300 and above; and 6 or more credits chosen from Geography 375, History 340-341, Philosophy 393, and Political Science 459.

The Spanish Major consists of 30 hours in courses numbered 323 and above in one of two concentrations. All majors must have the following courses: 323, 330 and 331. Literature concentration: (1) 332, 333, 334; (2) additional 400-level courses, at least two of which must be in literature. Hispanic Studies concentration: (1) one course from 332, 333 or 334; (2) additional courses in language, literature or culture, at least 4 of which must be from the 400 level. Students whose level of proficiency in Spanish is superior as defined by the ACTFL Proficiency Guidelines may substitute a 400-level course for 323 with consent of the department.

Major in French, German, Italian, Russian, or Spanish with a Concentration in Language and World Business or a Major Concentration in Language and World Business with Chinese, Japanese, or Portuguese

Students who wish to prepare for careers in international business may complete (a) a special major in Chinese, French, German, Italian, Japanese, Portuguese, Russian, or Spanish; (b) a professional emphasis in International Business, International Retail Merchandising, or International Agricultural Economics, and (c) some form of practical experience related to the concentration. Admission is by permission of the program director.
A. LANGUAGE REQUIREMENTS

1. The Chinese Concentration consists of 30 hours. The following are required: Chinese 231, 232, 331, 332, three hours of 490 or 491, and 9 hours of courses from the following: Art 306, Asian Studies 102, History 362, 365, 364, 476, Political Science 454, Religious Studies/Philosophy 376, 379 (or other course approved by the Asian Studies Advisor).

2. The French Major consists of 33 hours. The following are required: French 333, 345, 351, 352, 400, 422, 432, 440, 445, a 400-level literature elective, and three hours of 491, 490 or 493.

3. The German Major consists of 30 hours. The following are required: German 301-302, 311-312, 323 or 363, 485, three credit hours of 490, 491 or 493, and three courses numbered 320 or above.

4. The Italian Major consists of 30 hours. The following are required: Italian 314, 341, 342, 401, 490 or 491, and 12 hours of any 400-level literature courses.

5. The Japanese Concentration consists of 30 hours. The following are required: Japanese 251, 252, 351, 352, three hours of 490 or 491, and 9 hours of courses from the following: Art 386, Asian Studies 102 or 471 (if related to Japan), History 365, Japanese 313 or 314, Religious Studies 383.

6. The Portuguese Concentration consists of 33 hours. The following are required: Portuguese 301, 302, 309, 315, 316, 409, 431, six hours of 490 or 491 as approved by the director of the program, History 360 or 361, three hours of an approved Latin American Studies course.

7. The Russian Major consists of 30 hours. The following are required: Russian 301-302, 311-312, 401-402, 451-452, 490 or 491, and 3 hours from the following: 221, 222, 320, 371, 372, or any 400-level courses.

8. The Spanish Major consists of 33 hours. The following are required: 323, 330, 331, 345, 346, at least one 300-level literature survey course, three hours of 490 or 491, and any four courses in language, literature or culture, at least two of which must be from the 400 level while the remaining two may be selected from courses numbered above 300. Students whose level of proficiency in Spanish is superior as defined by ACTFL Proficiency Guidelines may substitute a 400-level course for 323 with consent of the department.

B. PROFESSIONAL EMPHASIS

1. International Business students will take 24 hours. The following are required: Accounting 201, 202, Marketing 301, Management 301, and Finance 301. Students then choose three courses from the following general business courses: Logistics and Transportation 301, 302, Business Law 301, Management 471, Marketing 440, Logistics and Transportation 441, Economics 321, or Business Administration 311.

2. International Retail Merchandising Students will take 25 hours. The following are required: Accounting 201, 202, Marketing 301, Retail and Consumer Sciences 210, 310, 321, 421, and three additional credit hours from the following: Retail and Consumer Sciences 350, 410, 411, 412, 415, 450, or 493.

3. International Cultural Economics students will complete 24 hours. The following are required: Accounting 201, Agricultural Economics 210, 320, 342, 350, 420, 430, and three credit hours from the following: Marketing 301, Management 301, Finance 301, Logistics and Transportation 301 or 302.

C. PRACTICAL EXPERIENCE

Through Asian Languages 490, French 490, German 490, Italian 490, Portuguese 490, Russian 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 9 hours (included in major requirements).

Additionally, Language and World Business students must consult an advisor in the Department in selecting relevant courses under the Basic Skills and Distribution requirements for the Concentration.

Students interested in the Language and World Business Program should contact the Director for advising as early as possible in their college careers. 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 Arts and Sciences in Basic Skills and Distribution and in the Language and World Business plan of studies, and a 3.0 average in language courses. Course substitutes for the program include Asian Languages, French, German, Italian, Portuguese, Russian, or Spanish 199, Economics 201 (under Social Sciences electives) and Math 125 and Statistics 201 (under Part II of the Natural Science electives). Progression is based on availability of space in the program. Program standards are adjusted periodically, and current requirements are available from the Director of the Language and World Business Program.

For further information, inquire in 701 McClung Tower.

Placement Examination

Students who have had previous work (either two or more years in high school or one year in college) in Chinese, French, German, Italian, Japanese, Portuguese, Russian, or Spanish should take a placement test to determine the appropriate level course for which to register. Placement tests are given for incoming students during summer orientation and throughout the year. Please contact the department for further details.

Proficiency Examinations

Students who have acquired a knowledge of French, German, Italian, Russian, or Spanish should request a proficiency test. A student earning a grade of C or better will receive credit for an appropriate number of courses. Superior students are encouraged to proceed as rapidly as their achievement permits.

Study Abroad

Five summer study abroad opportunities are available to students through the Department. The department sponsors programs in Brazil, France, Italy, Mexico, and Spain. Students can earn 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 Modern Foreign Languages and Literatures, 701 McClung Tower.

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

The Chinese Minor consists of Asian Languages 231-232 or its equivalent is a prerequisite to the minor. The minor shall consist of at least 17 hours of Chinese courses, including 18 hours from Asian Languages 311-312 or other Chinese courses above 300.

The French Minor consists of 18 hours 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).

The German Minor consists of 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).

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

The Japanese Minor consists of Asian Languages 251-252 or its equivalent is a prerequisite to the minor. The minor shall consist of at least 17 hours of Japanese courses, including 18 hours from Asian Languages 351-352; 451; and 6 hours from Asian Languages 313-314 or other Japanese courses above 300.

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

The Russian Minor 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.

The Spanish Minor consists of 18 hours in courses numbered 323 or above, distributed as follows: 323, 330 and 331; one course from 332, 333 or 334; two additional courses. Students pursuing a minor are strongly advised to consult with a departmental advisor.
MUSIC


Assistant Professors: A.L. Batey, D.M.A. South Carolina; W. Baldwin, D.M.A. Maryland; C. Freeman, M.P.A. Oklahoma City; W.W. Hawthorne, Ph.D. Cincinnati; E. Keathley, Ph.D. SUNY (Stonybrook); E. Powell, M.M. Cincinnati; J. Richter, M.M. Andrews University; D.M. Ryder, D.M.A. Iowa; C. Walters, D.M. Florida State; A.N. Wentzel, M.M. Southern California.

BACHELOR OF MUSIC DEGREE

The School of Music offers curricula leading to the Bachelor of Music degree with concentrations in music theory/composition, music education, and applied music (voice; piano; organ; saxophone; brass or woodwind; strings; percussion instruments; studio music and jazz). 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 music performance will complete one year each of two languages chosen from French, German and Italian.

PROGRESSION REQUIREMENTS

All new music students (freshman and transfer) must perform an audition in applied music and take a music theory examination, the results of which will determine his or her placement in applied music and theory. Both the audition and theory exam should be completed during a visit to the University prior to final arrival to begin classes. Applicants are urged to contact the School to schedule an audition and entrance examination have been successfully completed.

MINIMUM PERFORMANCE STANDARDS

Potential performance and music education majors not meeting minimum performance standards, but showing potential, will be allowed to register for applied music (Music 140—Fundamentals of Performance) in order to attain the desired level. Such students are normally expected to demonstrate sufficient progress by the end of the first academic year to perform on a level commensurate with a freshman student. Transfer students with permission reserved by the School. The addition of the extra semesters of study usually results in lengthening the period needed to satisfy requirements for advanced standing (300 level).

Students entering any one of the three emphases in music education and applied music must complete the same audition procedures as those of performance majors. At the end of the second year or after having completed the required courses, students will participate in an interview with an appointed Admissions Board. Upon receiving the positive recommendation from this board, students are admitted to the teacher education program and permitted to take required upper division education courses.

Students who pursue the music education curriculum are subject to all rules and regulations of the Teacher Education Program, which is housed in the College of Education. Notwithstanding the fact that their degree will be awarded from the College of Arts and Sciences.

ENSEMBLES

Ensemble participation during each semester of residence is required of all students studying applied music. Students are required to participate in ensembles appropriate to their specific degree program as approved by the faculty of the department. Ensemble requirements vary among concentrations and are listed in the School of Music Undergraduate Handbook, which is available in Room 211, Music Building.

APPLIED MUSIC

Applied study is classified as Principle or Secondary.

Students studying their principle (major) instrument register for credit appropriate to their program, 2-4 credit hours; students studying a secondary instrument register for 1 hour of credit. Study at the principal level receives one hour of private instruction per week and is 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.

Area study guides for all sections of the examination are available in the Music Office.

All music majors are required to study for Music General 200—Solo Class every fall and spring semester with the exception of the semester in which they are student teaching. The requirements for this course are to attend scheduled concerts, recitals, master classes, repertoire, and solo classes, and to perform at least once each semester as partial fulfillment of applied music credit requirements.

Applied Music Fees: $60 per semester for half-hour lesson (1 credit hour) $120 per semester for hour lesson (2-4 credit hours).

Computer registration and applied music fee payment must be verified in the School 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 in any music study.

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

KEYBOARD SKILLS PROFICIENCY EXAMINATION

Proficiency in keyboard skills is required of all music majors and is usually acquired in the four-semester series of Class Piano I, II, III, IV (Mus Kbd 110, 120, 210, 220). Students who already possess keyboard skills may pass a proficiency examination in lieu of these courses.

RECIDAL ATTENDANCE POLICY

The faculty of the School of Music believes that exposure to a variety of live musical performances is an important part of the education of students studying music at the University level. As a result, the faculty has put in place a recital attendance requirement for undergraduate music students. Regular recital attendance helps students become acquainted with accepted norms of recital presentation, furnishes them with opportunities to get to know and respect the talents of other students and faculty in the School of Music, and helps them establish the habit of attending musical performances after graduation. Specific recital attendance requirements are listed in the School of Music Undergraduate Student Handbook.

BACHELOR OF MUSIC IN MUSIC EDUCATION

Students seeking licensure to teach music in the public schools should pursue one of the options within this degree program. Four-year and five-year options are available to prepare teachers for instrumental teaching or for the teaching of vocal and general music. The four year program leads to the degree and to teaching licensure. The five year program provides for the granting of the degree at the end of four years, with teacher licensure being awarded after a fifth-year, graduate level internship. Students choosing the five year program earn twenty-four hours which may be applied to the Master's degree.

BACHELOR OF ARTS DEGREE

The School of Music offers curricula leading to the Bachelor of Arts degree with a major and 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 The Bachelor of Arts Degree—Music Major Music Course Requirements Prerequisites: Music Theory 110, 120 (F); Music Theory 130, 140 (S); Music Performance 100 Level (2). Courses toward the major: Music Theory 210, 220 (6); Music Theory 230, 240 (2); Music History 200 (3); Music History 210, 220 (6); Music Performance 200 level or above (four semester minimum) (8); Music General 200 (four semester minimum) (0); Music Ensemble (4); Music Theory 310 (3) 3 hours selected from: Music History 350, 380, 390. Music electives (0-3 hours) selected from: Music History 460 (3); Music General 301 (0); Music Theory 493 (3) or Music History 493 (2); Music General 411 (0). Total of 45-48 hours.

1. Students must complete a minimum of four semesters of Music Performance, major instrument/voice at the 200 level or above.

2. Music General 200 must be completed a minimum of four semesters.

Degree requires a total of 124 hours. Remaining hours of credit are structured per requirements as outlined in the catalog section.
"Requirements for Degrees" in the general section of the College of Arts and Sciences catalog entry.

**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 Music Education—Wind/Percussion Emphasis (5-year option)**

<table>
<thead>
<tr>
<th>Hours Credit</th>
<th>Freshman</th>
<th>Hours Credit</th>
<th>Junior</th>
</tr>
</thead>
<tbody>
<tr>
<td>Music Theory 110, 120</td>
<td>6</td>
<td>Music Theory 110, 120</td>
<td>6</td>
</tr>
<tr>
<td>Music Theory 130, 140</td>
<td>6</td>
<td>Music Theory 130, 140</td>
<td>6</td>
</tr>
<tr>
<td>Music Performance (major instrument)</td>
<td>2</td>
<td>Music Performance (major instrument)</td>
<td>2.2</td>
</tr>
<tr>
<td>Music Ensemble</td>
<td>1.1</td>
<td>Music Ensemble</td>
<td>1.1</td>
</tr>
<tr>
<td>Music General 200</td>
<td>0.0</td>
<td>Music General 200</td>
<td>0.0</td>
</tr>
<tr>
<td>Music Education 230</td>
<td>1</td>
<td>Music Education 230</td>
<td>1</td>
</tr>
<tr>
<td>Music History 200</td>
<td>3</td>
<td>Music History 200</td>
<td>3</td>
</tr>
<tr>
<td>Music Keyboard 110, 120</td>
<td>1.1</td>
<td>Music Keyboard 110, 120</td>
<td>1.1</td>
</tr>
<tr>
<td>Social Science</td>
<td>3</td>
<td>Social Science</td>
<td>3</td>
</tr>
<tr>
<td><strong>Sophomore</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Music Theory 210, 220</td>
<td>6</td>
<td>Music Theory 210, 220</td>
<td>6</td>
</tr>
<tr>
<td>Music Theory 230, 240</td>
<td>2</td>
<td>Music Theory 230, 240</td>
<td>2</td>
</tr>
<tr>
<td>Music Performance (major instrument)</td>
<td>2.2</td>
<td>Music Performance (major instrument)</td>
<td>2.2</td>
</tr>
<tr>
<td>Music General 200</td>
<td>0.0</td>
<td>Music General 200</td>
<td>0.0</td>
</tr>
<tr>
<td>Music History 210, 220</td>
<td>6</td>
<td>Music History 210, 220</td>
<td>6</td>
</tr>
<tr>
<td>Music Education 210</td>
<td>1</td>
<td>Music Education 210</td>
<td>1</td>
</tr>
<tr>
<td>Music Education 211</td>
<td>1</td>
<td>Music Education 211</td>
<td>1</td>
</tr>
<tr>
<td>Music Education 220</td>
<td>1</td>
<td>Music Education 220</td>
<td>1</td>
</tr>
<tr>
<td>Music Education 221</td>
<td>1</td>
<td>Music Education 221</td>
<td>1</td>
</tr>
<tr>
<td>Music Ensemble</td>
<td>1.1</td>
<td>Music Ensemble</td>
<td>1.1</td>
</tr>
<tr>
<td>Psychoeducational Studies 210</td>
<td>3</td>
<td>Psychoeducational Studies 210</td>
<td>3</td>
</tr>
<tr>
<td>Math 115</td>
<td>3</td>
<td>Math 115</td>
<td>3</td>
</tr>
<tr>
<td><strong>Junior</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Music Theory 310</td>
<td>3</td>
<td>Music Theory 310</td>
<td>3</td>
</tr>
<tr>
<td>Music Theory 320</td>
<td>2</td>
<td>Music Theory 320</td>
<td>2</td>
</tr>
<tr>
<td>Music Performance (major instrument)</td>
<td>2.2</td>
<td>Music Performance (major instrument)</td>
<td>2.2</td>
</tr>
<tr>
<td>Music General 200</td>
<td>0.0</td>
<td>Music General 200</td>
<td>0.0</td>
</tr>
<tr>
<td>Music Education 300</td>
<td>3</td>
<td>Music Education 300</td>
<td>3</td>
</tr>
<tr>
<td>Music History 380</td>
<td>3</td>
<td>Music History 380</td>
<td>3</td>
</tr>
<tr>
<td>Music Ensemble</td>
<td>1.1</td>
<td>Music Ensemble</td>
<td>1.1</td>
</tr>
<tr>
<td>Music Education 200</td>
<td>1</td>
<td>Music Education 200</td>
<td>1</td>
</tr>
<tr>
<td>Music 310, 320</td>
<td>5</td>
<td>Music 310, 320</td>
<td>5</td>
</tr>
<tr>
<td>Music Education 210</td>
<td>1</td>
<td>Music Education 210</td>
<td>1</td>
</tr>
<tr>
<td>Music Education 220</td>
<td>1</td>
<td>Music Education 220</td>
<td>1</td>
</tr>
<tr>
<td>Music Education 240</td>
<td>1</td>
<td>Music Education 240</td>
<td>1</td>
</tr>
<tr>
<td>Music Performance (major instrument)</td>
<td>2.2</td>
<td>Music Performance (major instrument)</td>
<td>2.2</td>
</tr>
<tr>
<td>Music History 210, 220</td>
<td>6</td>
<td>Music History 210, 220</td>
<td>6</td>
</tr>
<tr>
<td>Music Education 210</td>
<td>1</td>
<td>Music Education 210</td>
<td>1</td>
</tr>
<tr>
<td>Music Education 220</td>
<td>1</td>
<td>Music Education 220</td>
<td>1</td>
</tr>
<tr>
<td>Music Education 360</td>
<td>1</td>
<td>Music Education 360</td>
<td>1</td>
</tr>
<tr>
<td>Non-US History</td>
<td>3</td>
<td>Non-US History</td>
<td>3</td>
</tr>
</tbody>
</table>

Total: 124 hours plus 24 graduate hours

**B.M. Curriculum in Music Education—Wind/Percussion Emphasis (4-year alternative)**

<table>
<thead>
<tr>
<th>Hours Credit</th>
<th>Freshman</th>
<th>Hours Credit</th>
<th>Junior</th>
</tr>
</thead>
<tbody>
<tr>
<td>Music Theory 110, 120</td>
<td>6</td>
<td>Music Theory 110, 120</td>
<td>6</td>
</tr>
<tr>
<td>Music Theory 130, 140</td>
<td>2</td>
<td>Music Theory 130, 140</td>
<td>2</td>
</tr>
<tr>
<td>Music Performance (major instrument)</td>
<td>2</td>
<td>Music Performance (major instrument)</td>
<td>2.2</td>
</tr>
<tr>
<td>Music Ensemble</td>
<td>1.1</td>
<td>Music Ensemble</td>
<td>1.1</td>
</tr>
<tr>
<td>Music General 200</td>
<td>0.0</td>
<td>Music General 200</td>
<td>0.0</td>
</tr>
<tr>
<td>Music History 200</td>
<td>3</td>
<td>Music History 200</td>
<td>3</td>
</tr>
<tr>
<td>Music Keyboard 110, 120</td>
<td>1.1</td>
<td>Music Keyboard 110, 120</td>
<td>1.1</td>
</tr>
<tr>
<td>Foreign Language</td>
<td>6</td>
<td>Foreign Language</td>
<td>6</td>
</tr>
<tr>
<td><strong>Sophomore</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Music Theory 210, 220</td>
<td>6</td>
<td>Music Theory 210, 220</td>
<td>6</td>
</tr>
<tr>
<td>Music Theory 230, 240</td>
<td>2</td>
<td>Music Theory 230, 240</td>
<td>2</td>
</tr>
<tr>
<td>Music Performance (major instrument)</td>
<td>2.2</td>
<td>Music Performance (major instrument)</td>
<td>2.2</td>
</tr>
<tr>
<td>Music General 200</td>
<td>0.0</td>
<td>Music General 200</td>
<td>0.0</td>
</tr>
<tr>
<td>Music History 210, 220</td>
<td>6</td>
<td>Music History 210, 220</td>
<td>6</td>
</tr>
<tr>
<td>Music Education 210</td>
<td>1</td>
<td>Music Education 210</td>
<td>1</td>
</tr>
<tr>
<td>Music Education 220</td>
<td>1</td>
<td>Music Education 220</td>
<td>1</td>
</tr>
<tr>
<td>Music Education 240</td>
<td>1</td>
<td>Music Education 240</td>
<td>1</td>
</tr>
<tr>
<td>Music Ensemble</td>
<td>1.1</td>
<td>Music Ensemble</td>
<td>1.1</td>
</tr>
<tr>
<td>Chamber Ensemble</td>
<td>1.1</td>
<td>Chamber Ensemble</td>
<td>1.1</td>
</tr>
</tbody>
</table>

Total: 124 hours plus 24 graduate hours

**B.M. Curriculum in Music Education—String Emphasis (4-year alternative)**

<table>
<thead>
<tr>
<th>Hours Credit</th>
<th>Freshman</th>
<th>Hours Credit</th>
<th>Junior</th>
</tr>
</thead>
<tbody>
<tr>
<td>Math 115</td>
<td>3</td>
<td>Math 115</td>
<td>3</td>
</tr>
<tr>
<td>Music Theory 310</td>
<td>3</td>
<td>Music Theory 310</td>
<td>3</td>
</tr>
<tr>
<td>Music Theory 320</td>
<td>2</td>
<td>Music Theory 320</td>
<td>2</td>
</tr>
<tr>
<td>Music Performance (major instrument)</td>
<td>2.2</td>
<td>Music Performance (major instrument)</td>
<td>2.2</td>
</tr>
<tr>
<td>Music General 200</td>
<td>0.0</td>
<td>Music General 200</td>
<td>0.0</td>
</tr>
<tr>
<td>Music Education 350</td>
<td>2</td>
<td>Music Education 350</td>
<td>2</td>
</tr>
<tr>
<td>Music History 380</td>
<td>3</td>
<td>Music History 380</td>
<td>3</td>
</tr>
<tr>
<td>Music Ensemble</td>
<td>1.1</td>
<td>Music Ensemble</td>
<td>1.1</td>
</tr>
<tr>
<td>Music Education 200</td>
<td>1</td>
<td>Music Education 200</td>
<td>1</td>
</tr>
<tr>
<td>Music Education 220</td>
<td>1</td>
<td>Music Education 220</td>
<td>1</td>
</tr>
<tr>
<td>Music Education 360</td>
<td>1</td>
<td>Music Education 360</td>
<td>1</td>
</tr>
<tr>
<td>Non-US History</td>
<td>3</td>
<td>Non-US History</td>
<td>3</td>
</tr>
<tr>
<td><strong>Sophomore</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Music Theory 210, 220</td>
<td>6</td>
<td>Music Theory 210, 220</td>
<td>6</td>
</tr>
<tr>
<td>Music Theory 230, 240</td>
<td>2</td>
<td>Music Theory 230, 240</td>
<td>2</td>
</tr>
<tr>
<td>Music Performance (major instrument)</td>
<td>2.2</td>
<td>Music Performance (major instrument)</td>
<td>2.2</td>
</tr>
<tr>
<td>Music General 200</td>
<td>0.0</td>
<td>Music General 200</td>
<td>0.0</td>
</tr>
<tr>
<td>Music History 210, 220</td>
<td>6</td>
<td>Music History 210, 220</td>
<td>6</td>
</tr>
<tr>
<td>Music Education 210</td>
<td>1</td>
<td>Music Education 210</td>
<td>1</td>
</tr>
<tr>
<td>Music Education 220</td>
<td>1</td>
<td>Music Education 220</td>
<td>1</td>
</tr>
<tr>
<td>Music Education 360</td>
<td>1</td>
<td>Music Education 360</td>
<td>1</td>
</tr>
<tr>
<td>Non-US History</td>
<td>3</td>
<td>Non-US History</td>
<td>3</td>
</tr>
</tbody>
</table>

Total: 124 hours plus 24 graduate hours
### B.M. Curriculum in Music Education—Vocal/General Concentration/Vocal Emphasis (5-year option)

#### Hours Credit

**Freshman**
- English 101, 102 ............................................. 6
- Music Theory 110, 120 ........................................ 6
- Music Theory 130, 140 ...................................... 6
- Music Performance (keyboard) ......................... 2
- Music Performance (voice) .............................. 2
- Music Theory 210, 220 .................................... 6
- Music Theory 230, 240 .................................... 6
- Music Performance (keyboard) ......................... 2
- Music Performance (voice) .............................. 2
- Music Theory 320 .......................................... 2
- Music Theory 330 .......................................... 3
- Music Theory 340 .......................................... 3
- Music History 210 .......................................... 6
- Music History 220 .......................................... 6
- Music History 230 .......................................... 6
- Music History 240 .......................................... 6
- Music History 320 .......................................... 6
- Music History 330 .......................................... 6
- Music History 340 .......................................... 6
- Music History 350 .......................................... 6
- Music History 360 .......................................... 6
- Music History 370 .......................................... 6
- Music History 380 .......................................... 6
- Music History 390 .......................................... 6
- Music History 400 .......................................... 6
- *Optional Full Recital with approval of major area*

**Sophomore Year**
- English 101, 102 ............................................. 6
- Music Theory 110, 120 ........................................ 6
- Music Theory 130, 140 ...................................... 6
- Music Performance (keyboard) ......................... 2
- Music Performance (voice) .............................. 2
- Music Theory 210, 220 .................................... 6
- Music Theory 230, 240 .................................... 6
- Music Performance (keyboard) ......................... 2
- Music Performance (voice) .............................. 2
- Music Theory 320 .......................................... 2
- Music Theory 330 .......................................... 3
- Music Theory 340 .......................................... 3
- Music History 210 .......................................... 6
- Music History 220 .......................................... 6
- Music History 230 .......................................... 6
- Music History 240 .......................................... 6
- Music History 320 .......................................... 6
- Music History 330 .......................................... 6
- Music History 340 .......................................... 6
- Music History 350 .......................................... 6
- Music History 360 .......................................... 6
- Music History 370 .......................................... 6
- Music History 380 .......................................... 6
- Music History 390 .......................................... 6
- Music History 400 .......................................... 6
- *Optional Full Recital with approval of major area*

**Junior Year**
- English 101, 102 ............................................. 6
- Music Theory 110, 120 ........................................ 6
- Music Theory 130, 140 ...................................... 6
- Music Performance (keyboard) ......................... 2
- Music Performance (voice) .............................. 2
- Music Theory 210, 220 .................................... 6
- Music Theory 230, 240 .................................... 6
- Music Performance (keyboard) ......................... 2
- Music Performance (voice) .............................. 2
- Music Theory 320 .......................................... 2
- Music Theory 330 .......................................... 3
- Music Theory 340 .......................................... 3
- Music History 210 .......................................... 6
- Music History 220 .......................................... 6
- Music History 230 .......................................... 6
- Music History 240 .......................................... 6
- Music History 320 .......................................... 6
- Music History 330 .......................................... 6
- Music History 340 .......................................... 6
- Music History 350 .......................................... 6
- Music History 360 .......................................... 6
- Music History 370 .......................................... 6
- Music History 380 .......................................... 6
- Music History 390 .......................................... 6
- Music History 400 .......................................... 6
- *Optional Full Recital with approval of major area*

**Senior Year**
- English 101, 102 ............................................. 6
- Music Theory 110, 120 ........................................ 6
- Music Theory 130, 140 ...................................... 6
- Music Performance (keyboard) ......................... 2
- Music Performance (voice) .............................. 2
- Music Theory 210, 220 .................................... 6
- Music Theory 230, 240 .................................... 6
- Music Performance (keyboard) ......................... 2
- Music Performance (voice) .............................. 2
- Music Theory 320 .......................................... 2
- Music Theory 330 .......................................... 3
- Music Theory 340 .......................................... 3
- Music History 210 .......................................... 6
- Music History 220 .......................................... 6
- Music History 230 .......................................... 6
- Music History 240 .......................................... 6
- Music History 320 .......................................... 6
- Music History 330 .......................................... 6
- Music History 340 .......................................... 6
- Music History 350 .......................................... 6
- Music History 360 .......................................... 6
- Music History 370 .......................................... 6
- Music History 380 .......................................... 6
- Music History 390 .......................................... 6
- Music History 400 .......................................... 6
- *Optional Full Recital with approval of major area*

**Total: 134 hours**
### B.M. Curriculum in Organ

<table>
<thead>
<tr>
<th>Hours Credit</th>
<th>Course</th>
</tr>
</thead>
<tbody>
<tr>
<td>Freshman</td>
<td>English 101, 102                                                        6</td>
</tr>
<tr>
<td></td>
<td>Music Theory 110, 120                                                  6</td>
</tr>
<tr>
<td></td>
<td>Music Theory 130, 140                                                  2</td>
</tr>
<tr>
<td></td>
<td>Music History 210, 220                                                 2</td>
</tr>
<tr>
<td></td>
<td>Music Performance 290                                                 4,4</td>
</tr>
<tr>
<td></td>
<td>Electives                                                              3</td>
</tr>
<tr>
<td>Sophomore</td>
<td>Music Theory 210, 220                                                  6</td>
</tr>
<tr>
<td></td>
<td>Music Theory 230                                                      2</td>
</tr>
<tr>
<td></td>
<td>Music Performance 290                                                 2</td>
</tr>
<tr>
<td></td>
<td>Electives                                                              3</td>
</tr>
<tr>
<td>Senior</td>
<td>Music Theory 430                                                      3</td>
</tr>
<tr>
<td></td>
<td>Music Ensemble                                                        1,1</td>
</tr>
<tr>
<td></td>
<td>Music General 301                                                     0</td>
</tr>
<tr>
<td></td>
<td>Music Performance 380                                                 3</td>
</tr>
<tr>
<td></td>
<td>Electives                                                              3</td>
</tr>
</tbody>
</table>

Total: 129 hours

### B.M. Curriculum in Piano Pedagogy and Literature

<table>
<thead>
<tr>
<th>Hours Credit</th>
<th>Course</th>
</tr>
</thead>
<tbody>
<tr>
<td>Freshman</td>
<td>English 101, 102                                                        6</td>
</tr>
<tr>
<td></td>
<td>Music Theory 110, 120                                                  6</td>
</tr>
<tr>
<td></td>
<td>Music Theory 130, 140                                                  2</td>
</tr>
<tr>
<td></td>
<td>Music Performance 130                                                 3,3</td>
</tr>
<tr>
<td></td>
<td>Music Ensemble                                                        1,1</td>
</tr>
<tr>
<td></td>
<td>Music General 301                                                     0</td>
</tr>
<tr>
<td></td>
<td>Music Performance 380                                                 3</td>
</tr>
<tr>
<td></td>
<td>Electives                                                              3</td>
</tr>
<tr>
<td>Sophomore</td>
<td>Music Theory 210, 220                                                  6</td>
</tr>
<tr>
<td></td>
<td>Music Theory 230                                                      2</td>
</tr>
<tr>
<td></td>
<td>Music Performance 290                                                 2</td>
</tr>
<tr>
<td></td>
<td>Electives                                                              3</td>
</tr>
<tr>
<td>Senior</td>
<td>Music History 380                                                      3</td>
</tr>
<tr>
<td></td>
<td>Music Ensemble                                                        1,1</td>
</tr>
<tr>
<td></td>
<td>Music General 301                                                     0</td>
</tr>
<tr>
<td></td>
<td>Music Performance 380                                                 3</td>
</tr>
<tr>
<td></td>
<td>Electives                                                              3</td>
</tr>
</tbody>
</table>

Total: 130 hours

### B.M. Curriculum in Sacred Music

<table>
<thead>
<tr>
<th>Hours Credit</th>
<th>Course</th>
</tr>
</thead>
<tbody>
<tr>
<td>Freshman</td>
<td>English 101, 102                                                        6</td>
</tr>
<tr>
<td></td>
<td>Music Theory 110, 120                                                  6</td>
</tr>
<tr>
<td></td>
<td>Music Theory 130, 140                                                  2</td>
</tr>
<tr>
<td></td>
<td>Music Performance 130                                                 3,3</td>
</tr>
<tr>
<td></td>
<td>Music Ensemble                                                        1,1</td>
</tr>
<tr>
<td></td>
<td>Music General 301                                                     0</td>
</tr>
<tr>
<td></td>
<td>Music Performance 380                                                 3</td>
</tr>
<tr>
<td></td>
<td>Electives                                                              3</td>
</tr>
<tr>
<td>Sophomore</td>
<td>Music Theory 210, 220                                                  6</td>
</tr>
<tr>
<td></td>
<td>Music Theory 230                                                      2</td>
</tr>
<tr>
<td></td>
<td>Music Performance 290                                                 2</td>
</tr>
<tr>
<td></td>
<td>Electives                                                              3</td>
</tr>
<tr>
<td>Senior</td>
<td>Music History 380                                                      3</td>
</tr>
<tr>
<td></td>
<td>Music Ensemble                                                        1,1</td>
</tr>
<tr>
<td></td>
<td>Music General 301                                                     0</td>
</tr>
<tr>
<td></td>
<td>Music Performance 380                                                 3</td>
</tr>
<tr>
<td></td>
<td>Electives                                                              3</td>
</tr>
</tbody>
</table>

Total: 130 hours
**B.M. Curriculum in Studio Music and Jazz**

<table>
<thead>
<tr>
<th>Freshman</th>
<th>Hours</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>English 101, 102</td>
<td>6</td>
<td>6</td>
</tr>
<tr>
<td>Music Theory 110, 120</td>
<td>6</td>
<td>6</td>
</tr>
<tr>
<td>Music Theory 130, 140</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Music Performance</td>
<td>6</td>
<td>6</td>
</tr>
<tr>
<td>Music Jazz 110</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>Music Ensemble</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Music General 200</td>
<td>0,0</td>
<td>0,0</td>
</tr>
<tr>
<td>Music History 200</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>Music History 350</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Music Jazz 130, 140</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Music Jazz 210, 220</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>Music Performance</td>
<td>6</td>
<td>6</td>
</tr>
<tr>
<td>Music General 200</td>
<td>0,0</td>
<td>0,0</td>
</tr>
<tr>
<td>Music History 210, 220</td>
<td>6</td>
<td>6</td>
</tr>
<tr>
<td>Music Ensemble</td>
<td>1,1</td>
<td>1,1</td>
</tr>
<tr>
<td>Social Science Electives</td>
<td>6</td>
<td>6</td>
</tr>
<tr>
<td>Music General 410</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Music Ensemble</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Natural Science</td>
<td>6</td>
<td>6</td>
</tr>
<tr>
<td>Foreign Language</td>
<td>6</td>
<td>6</td>
</tr>
<tr>
<td>Senior</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Music Jazz 410</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>Music Jazz 420</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Music Technology 290 or 340</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>Music Performance</td>
<td>6</td>
<td>6</td>
</tr>
<tr>
<td>Music Ensemble</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Music General 200</td>
<td>0,0</td>
<td>0,0</td>
</tr>
<tr>
<td>Music General 401</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Non-US History</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>Electives</td>
<td>12</td>
<td>12</td>
</tr>
</tbody>
</table>

Total: 131 hours

**B.M. Curriculum in Voice**

<table>
<thead>
<tr>
<th>Freshman</th>
<th>Hours</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>English 101, 102</td>
<td>6</td>
<td>6</td>
</tr>
<tr>
<td>Music Theory 110, 120</td>
<td>6</td>
<td>6</td>
</tr>
<tr>
<td>Music Theory 130, 140</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Music History 200</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>Music General 200</td>
<td>0,0</td>
<td>0,0</td>
</tr>
<tr>
<td>Music Performance</td>
<td>6</td>
<td>6</td>
</tr>
<tr>
<td>Music General 200</td>
<td>0,0</td>
<td>0,0</td>
</tr>
<tr>
<td>Music History 210, 220</td>
<td>6</td>
<td>6</td>
</tr>
<tr>
<td>Music Ensemble</td>
<td>1,1</td>
<td>1,1</td>
</tr>
<tr>
<td>Social Science Electives</td>
<td>6</td>
<td>6</td>
</tr>
<tr>
<td>Music General 410</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Music General 401</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Non-US History</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>Electives</td>
<td>12</td>
<td>12</td>
</tr>
</tbody>
</table>

Total: 127 hours

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

<table>
<thead>
<tr>
<th>Freshman</th>
<th>Hours</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>English 101, 102</td>
<td>6</td>
<td>6</td>
</tr>
<tr>
<td>Music Theory 110, 120</td>
<td>6</td>
<td>6</td>
</tr>
<tr>
<td>Music Theory 130, 140</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Music History 200</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>Music General 200</td>
<td>1,1</td>
<td>1,1</td>
</tr>
<tr>
<td>Music General 401</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Music Performance</td>
<td>6</td>
<td>6</td>
</tr>
<tr>
<td>Music General 401</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Lunch</td>
<td>6</td>
<td>6</td>
</tr>
<tr>
<td>Arts and Sciences Electives</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>Junior</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Music Theory 210, 220</td>
<td>6</td>
<td>6</td>
</tr>
<tr>
<td>Music Theory 230, 240</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Music Performance</td>
<td>2,2</td>
<td>2,2</td>
</tr>
<tr>
<td>Music Technology 290</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>Music Performance</td>
<td>5,5</td>
<td>5,5</td>
</tr>
<tr>
<td>Music Ensemble</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Music General 200</td>
<td>0,0</td>
<td>0,0</td>
</tr>
<tr>
<td>Music General 401</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Non-US History</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>Electives</td>
<td>12</td>
<td>12</td>
</tr>
</tbody>
</table>

Total: 132 hours

1Must take 1 year of two languages from French, German or Italian.
2Humanities-Arts (Non-Music) Literature, Philosophical Perspectives, Interdisciplinary Studies.

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

<table>
<thead>
<tr>
<th>Freshman</th>
<th>Hours</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>English 101, 102</td>
<td>6</td>
<td>6</td>
</tr>
<tr>
<td>Music Theory 110, 120</td>
<td>6</td>
<td>6</td>
</tr>
<tr>
<td>Music Theory 130, 140</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Music History 200</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>Music General 200</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Music Performance</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>Music General 200</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Electives</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Natural Science</td>
<td>6</td>
<td>6</td>
</tr>
<tr>
<td>Senior</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Music Theory 430, 440</td>
<td>6</td>
<td>6</td>
</tr>
<tr>
<td>Music Performance</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Area Study</td>
<td>6</td>
<td>6</td>
</tr>
<tr>
<td>Music Ensemble</td>
<td>1,1</td>
<td>1,1</td>
</tr>
</tbody>
</table>

**Areas of Study**

Option A: Composition: Music Performance 394, Music Performance 494, Lecture Recital Music General 411
Option B: Electronic Composition: Music Performance 395, Music Performance 495, Lecture Recital Music General 411
Option C: Music Theory: Music Performance 394 or 395, Independent Study in Music Theory 493, Music History Elective (300 level and above).

***Humanities-Arts (Non-Music), Literature, Philosophical Perspectives, Interdisciplinary Studies***

**PHILOSOPHY**

**Professors:**
J.R. Hardwig (Head), Ph.D. Texas; R.E. Aquila, Ph.D. Northwestern; L.B. Cebik (Emeritus), Ph.D. Nebraska; S.M. Cohen, Ph.D. Northwestern; J.W. Davis (Emeritus), Ph.D. Emory; R.B. Edwards (Emeritus), Ph.D. Emory; G.C. Graber, Ph.D. Michigan; J.E. Noël, Ph.D. Ohio State; B.C. Postow, Ph.D. Yale; D. Van de Vate (Emeritus), Ph.D. Yale.

**Associate Professors:**
K.A. Bohstedt, Ph.D. Ohio State; J.O. Bennett, Ph.D. Tulane; H.P. Hamlin, Ph.D. Georgia; M.L. Osborne (Emeritus), Ph.D. Tennessee.

**Assistant Professors:**
J.M. Kaplan, Ph.D., Stanford; C.W. McLeod, Ph.D. Dalhousie; D.A. Reidy, Ph.D. Kansas.

**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 programs with a member of the Philosophy faculty.

The **minor** consists of 18 hours in courses numbered 200 or above. Minors should discuss their program with a member of the Philosophy faculty.
**PHYSICS AND ASTRONOMY**

**Professors:**
S.P. Sorensen (Head), Ph.D. Copenhagen (Denmark); F.E. Barnes (Collaborating Scientist), Ph.D. California; C.R. Bingham, Ph.D. Tennessee; W.E. Blais, Ph.D. Michigan State; M.J. Breining, Ph.D. Oregon; W.B. Bugg, Ph.D. Tennessee; J. Burdoofer (Distinguished Professor), Ph.D. Freie Universität Berlin; T.A. Callcott, Ph.D. Purdue; R.W. Childers, Ph.D. Vanderbilt; H.W. Crater (UTSI), Ph.D. Yale; K.E. Duckett, Ph.D. Tennessee; A.G. Egiluz, Ph.D. Brown; S.B. Elston, Ph.D. University of Massachusetts; S. Georgihoiu, Ph.D. Manchester (England); M.W. Guidry, Ph.D. Tennessee; T. Handler, Ph.D. Rutgers; E.L. Hart, Ph.D. Cornell; I. Kamyshov, Ph.D. ITEP (Russia); J.W.L. Lewis (Distinguished Professor, UTSI), Ph.D. Mississippi; Ph.D. Michigan; J. Macek (Distinguished Scientist), Ph.D. Rensselaer Polytechnic Institute; A. Mahan (Distinguished Scientist), Ph.D. University of California (Berkeley); W. Nazarewicz, Ph.D. Warsaw; L.R. Painter, Ph.D. Tennessee; D.J. Pegg, Ph.D. New Hampshire; E.W. Plummer (Distinguished Scientist), Ph.D. Cornell; J.J. Quinn (Lincoln Chair), Ph.D. Maryland; L.L. Riedinger, Ph.D. Vanderbilt; C.C. Shih (Liason), Cornell; M.R. Strayer, Ph.D. Massachusetts Institute of Technology; J.R. Thompson, Ph.D. Duke; B.F.L. Ward, Ph.D. Princeton.

**Associate Professors:**
G. Canright, Ph.D. Tennessee; L. Davis (UTSI), Ph.D. Auckand; T.L. Ferrell, Ph.D. Clemson; J.C. Levin, Ph.D. Oregon; C. Parigger (UTSI), Ph.D. New Zealand; F.R. Read (Collaborating Scientist), Ph.D. Cornell; S.Y. Shieh, Ph.D. Maryland; G. Siopsis, Ph.D. California Institute of Technology; H.H. Weitering, Ph.D. Groningen.

**Assistant Professors:**
S.J. Daunt, Ph.D. Queens (Kingston, Ontario, Canada); D.J. Dean (Collaborating Scientist), Ph.D. Vanderbilt; A.J. Sanders, Ph.D. Tufts.

**Research Professors:**
H.O. Cohn, Ph.D. Indiana; L.A. Pinnaduwage, Ph.D. Pittsburgh; N. Thonnard, Ph.D. Kentucy; J. Zhang, Ph.D. Lanzhou.

**Research Associate Professors:**
P.E. Datkos, Ph.D. Tennessee; D.L. McCorkle, Ph.D. Tennessee.

**Research Assistant Professors:**
Y.Y. Efremeno, Ph.D. ITEP (Russia); S.A. Yost, Ph.D. Princeton.

**Director of Undergraduate Laboratories:**
J.E. Parks, Ph.D. Kentucky.

**Instructor:**
T. Riedinger, M.S. Vanderbilt.

**PHYSICS**

**B. S. Major**
The undergraduate physics major provides a thorough introduction to all of the core areas of physics. At the same time it allows students with special interests to pursue different concentrations.

The Department offers three concentrations: Academic, Applied, and General. The Academic Concentration is intended for students interested in professional employment or graduate work in physics or closely related fields such as astronomy, engineering, laser technology, or computational science. The Applied Concentration introduces students to the physics and technology of today and tomorrow. Such a broad physics background is increasingly useful in technological and industrial fields outside of physics. The General Concentration is intended for students who wish to apply a substantial knowledge of physics to fields such as secondary education, medicine, law, journalism, business, or any field of their choice.

**Prerequisites of the Major**


**Major with a General Concentration** consists of Mathematics 241 and 242; Physics 240, 311, 321, and 361, one lab course, chosen from 421, 435, and 461, and three core courses, chosen from 312, 411, 412, 431, 432, 441, 442. In addition, 12 coordinated hours in an area of the student’s special interest are to be chosen by the student in consultation with a departmental advisor. Total Major hours: 40-41 including 28-29 in physics and 12 in chosen concentration.

**A Physics Minor** consists of Physics 137-138, 240, or 135-136, 240 and 12 hours from Physics and Astronomy courses numbered 300 and above.

An **Astronomy Minor** consists of one year of introductory astronomy, Astronomy 411, 490 (3), Physics 311-12, and 421.

**POLITICAL SCIENCE**

**Professors:**
Patricia K. Freeland (Head), Ph.D. Wisconsin; Robert B. Cunningham, Ph.D. Indiana; Michael M. Gant, Ph.D. Michigan State; Michael R. Fitzgerald, Ph.D. Oklahoma; Robert Gorman, Ph.D. New York; William Lyons, Ph.D. Oklahoma; Hyrum Plass, Ph.D. Utah; John M. Scheb, Ph.D. Florida; Thomas A. Smith, Ph.D. Ohio State; Otis H. Stephens, Jr. (Alumni Distinguished Service Professor), Ph.D. Johns Hopkins; Thomas D. Unger (Emeritus), Ph.D. Iowa.

**Associate Professors:**
David H. Foy, Ph.D. Tennessee; Janet Kelly, Ph.D. Wayne State; Anthony J. Nownes, Ph.D. Kansas; David J. Houston, Ph.D. SUNY: Binghamton; Robert L. Peterson, Ph.D. Yale; Lilliard E. Richardson, Ph.D. Texas; Yang Zhong, Ph.D. Kentucky.

**Assistant Professor:**
Donna Van Cott, Ph.D. Georgetown.

**B.A. Major**
Political Science 101 or 107, and 102 are prerequisites to the major.

The major consists of 24 hours of courses numbered 300 or above. These 24 hours must include at least one course in each of the four areas of the discipline:

- United States Government and Politics
- Public Administration

**Comparative Government and Politics**
350, 355, 361, 452, 454, 459, 461, 463.

**International Relations**
365, 366, 470, 471, and 472.

**Political Theory**
300, 374, 475 and 476.

**Minor Prerequisites:**
Political Science 101 or 102 and 102 are prerequisites to the major. The major consists of 15 hours of 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 102, and 102 are prerequisites to the major. The major consists of 27 hours of courses numbered 300 or above, including 387, 388, 487, and 488. These 27 hours must include at least one course in each of the four areas of the discipline: 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 Public Administration. Political Science 101 or 107, 102 and Economics 201 are prerequisites to the major in Political Science with a concentration in Public Administration. The concentration consists of course work in Political Science, Economics, and Accounting. Students must complete Political Science 340, 401, two of the following: Political Science 440, 441 or 442; and two of the following: Economics 471, 472 or Accounting 201. Students must also include one course in each of the three remaining fields of Political Science: Comparative Government and Politics, International Relations, and Political Theory.

**PSYCHOLOGY**

**Professors:**
James E. Lawler (Head), Ph.D. North Carolina; G.M. Burghardt (Alumni Distinguished Professor), Ph.D. Colorado; W.H. Calhoun, Ph.D. California (Berkeley); H.J. Fine (Emeritus), Ph.D. Syracuse; S.J. Handel, Ph.D. Johns Hopkins; L. Handler, Ph.D. Michigan State; Warren H. Jones, Ph.D. Oklahoma State University; K.A. Lawer, Ph.D. North Carolina; J.W. Lounsbury, Ph.D. Michigan State; J.F. Lubar, Ph.D. Chicago; J.C. Malone, Ph.D. Duke; K.R. Newton (Emeritus), Ph.D. Tennessee; H.R. Polio (Alumni Distinguished Service Professor), Ph.D. Michigan; F. Samejima, Ph.D. Kejo (Japan); R.A. Saudargas, Ph.D. Florida State; R.S. Shadrer (Emeritus), Ph.D. Pennsylvania; E.D. Sundstrom, Ph.D. Utah; G.B. Travis, Ph.D. California (Davis); R.G. Wahler, Ph.D. Washington; J.A. Wiberly (Emeritus), Ph.D. Syracuse.

**Associate Professors:**
D.Baldwin, Ph.D. Kent State; M.G. Johnson, Ph.D. Johns Hopkins; A. McIntyre, Ph.D. Yale; W.G. Morgan, Jr., Ph.D. Tennessee; M.R. Nash, Ph.D. Ohio; Deborah P. Welsh, Ph.D. University of Massachusetts.

**Assistant Professor:**
Kristina Gordon, Ph.D. University of North Carolina.
Major  Prerequisites are: one year of a biological science (e.g. Biology 101-102), Psychology 110 with a grade of C or better, and a GPA of at least 2.00. The major requires 24 Psychology hours at the 200 level or higher: (1) Either Psychology 302 or Statistics 203 and 21 additional hours in Psychology or Math 115 and 24 additional hours in Psychology; (2) Three courses from Psychology 216, 220, 300, 310, 320, 330, 360, 370; (3) Two additional Psychology courses at the 300 level or higher; (4) Two additional Psychology courses at the 400 level.  NOTE: No more than six hours of 399, 499, 491, 492, 493 may be used in this major.  Continuation in the Psychology Major requires maintenance of a GPA of 2.00.  Students placed on Academic Review will be informed in writing that they are on probation and their records will be reviewed.  Students who continue on Academic Review will be dropped from the major.

Minor  Consists of 110 or equivalent; and 15 additional hours at the 300 level and above.  NOTE: 399, 489, 491, 492, 493 cannot be used in this minor.

Honors Program  The Psychology Department offers an Honors Concentration that is a specially designed individualized mentorship program.  University Honors students and psychology majors with ACT scores of 29 or higher (or SAT equivalent) may apply.  Admission to the program will be based on the basis of the review of the candidate’s application and interview by the Psychology Honors Faculty, normally in the student’s second year.  Any semester with a GPA below 3.2 will lead to consideration of a student’s dismissal from the program by the program faculty.  The honors concentration includes all the requirements of the Psychology Major and at least ten hours of upper division psychology honors courses including at least four hours of Psychology 347 (continuous registration is preferred), three hours of Psychology 367 and three hours of Psychology 467.

RELIGIOUS STUDIES


Associate Professors:  J.L. Fitzgerald, Ph.D. Chicago; R.W. Gwynne, Ph.D. Washington; J.O. Hodges, Ph.D. Calvin College; Mark Hulsether, Ph.D. Minnesota; M.L. Levering, Ph.D. Harvard.


Major  The basic concentration consists of at least 27 hours, all of which must be at the 300 level or above, including one course from each of the first six categories and two courses from category seven, one of which must be RS 351.  Majors are strongly urged to take RS 300, and to do so as soon as possible after declaring their major.  The remaining three hours, which complete this major, shall not include related language courses.

SOCIOLEGY

Professors:  M.L. Benson, Ph.D. Illinois; J.A. Black, Ph.D. Iowa; D.W. Hastings, Ph.D. Massachusetts; T.C. Hood, Ph.D. Duke; R.G. Perrin, Ph.D. British Columbia; N.E. Shover, Ph.D. Illinois (Urbana); S.E. Wallace, Ph.D. Minnesota.

Associate Professor:  S. Kurth, Ph.D. Illinois (Chicago); S. Cable, Ph.D. Pennsylvania State; A. Jalata, Ph.D. SUNY-Binghamton; R.E. Jones, Ph.D. Washington State.

Assistant Professors:  J. Shefner, Ph.D. California (Davis).

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

Major  Before applying to the Sociology Department for admission to the major a student must complete either Sociology 110 or 120 with a grade of C+ or above.  Upon granting admission to the major, the department will assign the student an academic advisor who will help the student plan a program of study for the major.  The major consists of 24 upper-division hours in sociology and must include 321 and 331.  Students should complete 321 and 331 by the end of their junior year.

Minor  The minor consists of 15 upper-division hours in Sociology and must include 321 and 331.  Prerequisite to the minor is three lower-division hours in Sociology (either 110 or 120).

RUSSIAN

See Modern Foreign Languages and Literatures.

SPANISH

See Modern Foreign Languages and Literatures.

STATISTICS

See faculty list in the College of Business Administration.

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 courses following Sociology 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.  The Concentration in Environment and Society consists of Sociology 321 and 331 and eighteen hours of upper-division sociology courses as follows: 360, 464, either 344 or 345, either 442 or 446, and two courses selected in consultation with advisor.

Minor with Concentration in Environment and Society  The minor consists of Sociology 321, 331, 360 and two courses from 344, 345, 442, 446, and 464.  Prerequisites to the minor either Sociology 110 or 120.

COLLEGE SCHOLARS HONORS

Director:  David Tandy, Professor of Classics.

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.
Minor The minor consists of Statistics 201 or Statistics 251; an additional 12 hours from Statistics 320, 330, 365, 471, 472, 473, 475; and Math 423, 424, 425.

THEATRE

Professors:

Associate Professors:
E. Craven, M.A. Tennessee; L.J. DeCuir, M.F.A. Tulane; B.K.A. Gould, M.F.A. Catholic.

Assistant Professor:

Major Theatre 100 is a prerequisite to a major which consists of 200, 220, 300, 411, 412, 430, 1 from 340, 345, 350, 355, 360, and 12 additional hours of Theatre courses numbered 200 and above, 3 of which may be in cognate areas approved by the Department.

Minor Theatre 100 is a prerequisite to a minor which consists of 15 hours of Theatre courses, 6 of which must be in upper division. General requirements for the master’s degree are given in the Graduate Catalog.

URBAN AND REGIONAL PLANNING

Professors:
C.W. Minkel (Head) Ph.D. Cornell; D.A. Johnson (Emeritus), Ph.D. Cornell; K.B. Kenney (Emeritus), Ph.D. North Carolina; J.M. Prochaska (Emeritus), M.U.P. Michigan State; W.L. Shouse (Emeritus), M.C.P. Harvard; J.A. Spencer, M.C.P. Ohio State.

Associate Professors:
G.E. Bowen, M.A. George Washington; B.E. Tonn, Ph.D. Northwestern.

Assistant Professors:
T. Shupp, M.S.P. Tennessee; C. Zanetta, Ph.D. Ohio State.

Urban and Regional Planning offers a program of studies leading to the professional degree of Master of Science in Planning. For complete information, refer to the Graduate Catalog.

The Department also directs the Urban Studies program in the College of Arts and Sciences.

URBAN STUDIES

See Interdisciplinary Programs.

WOMEN’S STUDIES

See Interdisciplinary Programs.