College of Liberal Arts

Lorman Ratner, Dean
Charles O. Jackson, Associate Dean
Jack Armistead, Associate Dean for Academic Programs
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Lee Magid, Associate Dean for Research.

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

The faculty of the College are committed to providing both comprehensive general education and concentrated study in a particular field to all students enrolled at The University of Tennessee, Knoxville. General education offers opportunities to master the basic learning skills necessary to understand a specialized area of study and is essential for the continuation of learning throughout life. Liberal Arts faculty are also committed to educating students in a discipline. Education with a disciplinary focus prepares students for further study at the graduate level and for careers in business, public service, or any other endeavor. As our world becomes both more specialized and more changeable, the need to find the right balance between general and specialized knowledge becomes essential.

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

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

The faculty of the College of Liberal Arts provide to all students a general education and to thousands of students a year a more specialized education in any one of twenty-six disciplines and a dozen or more interdisciplinary 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 Colleges of Liberal Arts faculty in a research University.

PROGRAMS OF STUDY

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

DEGREES OFFERED

(1) BACHELOR OF ARTS

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

Basic Program - The program appropriate for most B.A. students is developed around the basic skills and distribution requirements plus intensive study in one or more of the specified departmental or inter-departmental 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 one of the cooperative 3+1 curricula in the health sciences (medicine, dentistry, pharmacy, veterinary medicine, or medical technology) or in the 3+2 program in business and liberal arts. Students taking one of the health sciences curricula proceed directly to specialized training in the chosen area after the third year of liberal arts study and complete the first year of professional study in lieu of satisfying the requirements for the B.A. degree with a major concentration in the college. Students in the 3+2 business and liberal arts program take three years of coursework leading to a B.A. in Liberal Arts, followed by two years of study in the College of Business leading to the M.B.A.

(2) BACHELOR OF SCIENCE

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

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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 science.

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

(3) BACHELOR OF FINE ARTS
(See Department of Art.)

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

REQUIREMENTS FOR DEGREES

Bachelor of Arts and Bachelor of Science Basic Programs

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

1. All University degree requirements as stated in the front section of the Undergraduate Catalog.
2. A minimum of 124 credit hours;
3. At least 40 credit hours in courses numbered 300 or above;
4. Appropriate work to satisfy basic skills and distribution requirements, counting no course in more than one area (not required in the College Scholars Program);
5. Completion of at least one major (24-40 credits at 200 level or above for B. S. majors and 24-37 credits at 200 level or above for B. A. majors) (up to 6 hours in the major may also be used, where listed, to satisfy basic skills or distribution requirements);
6. Students may choose to develop one or more minors (minimum 15 hours at the 200 level and above); and
7. Students may take up to 20 hours of courses graded Satisfactory/No Credit in any area outside the major or minor, basic skills or distribution requirements.

PROGRAMS LEADING TO BACHELOR OF ARTS AND BACHELOR OF SCIENCE DEGREES

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

BASIC SKILLS

English Composition

Purpose:
1. To gain and improve the skills necessary to write English expository prose coherently and convincingly.
2. To improve reading skills.
3. To enhance critical and analytical abilities as applied to key issues and texts.

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

- 1. By completing six credits in English writing courses in one of the following series:
   (a) English 101 and 102 (English Composition).
   (b) English 118 (Honors: English Composition) and English 102 (English Composition).
   Students who obtain a grade of A or B in 118 will complete their freshman requirement by choosing 102, a sophomore literature course in the English Department, or English 355 Advanced Expository Writing. If the sophomore literature course appears on the list for Humanities distribution requirements, it may also be counted toward those requirements.

- 2. By acquiring an appreciation for the richness of the past as a statement of human capability, aspiration, and achievement.
- 3. To acquire the skills that will aid in the process of critical analysis, problem solving, and decision making.
- 4. To develop insight into the phenomenon of language.

In addition to the above requirement, students who complete a two-course mathematics package under Divisional Distribution, Mathematics 110 Algebraic Reasoning; 130 Precalculus; 100 Philosophy 130 Critical Thinking; 135 Formal Logic.

DISTRIBUTION

1. Divisional Distribution

a. Non-United States History

Purpose:
- a. To acquire an appreciation for the
- b. To develop a historical perspective on a civilization that differs from or serves as the foundation for studying one's own.
- c. To be able to use the tools (i.e. mathematics, inductive or deductive reasoning, or computing) involved in mathematics, inductive or deductive reasoning, or computing.
- d. To learn the basic discoveries and their

b. Natural Science

Purpose:
- a. To know and understand the basic vocabulary of at least one scientific discipline.
- b. To learn the basic discoveries and their importance in one scientific discipline.
- c. To be able to use the tools (i.e. mathe-

Writing Emphasis Courses shall require out-of-class writing assignments of at least 3000 words plus at least one in-class essay examination.
b. To develop a critical understanding of one or more approaches, perspectives, or methodologies used in the social sciences.

c. To develop analytical skills relevant to current social, economic, or political problems, their origins in society and individuals, and possible perspectives for their resolution.

Requirement:

a. Bachelor of Arts students must complete a minimum of 12 credits from at least two departments or programmatic areas indicated below.

b. Bachelor of Science students must complete a minimum of 6 credits from at least two departments or programmatic areas indicated below.

Afro-American Studies 201-202 Introduction to Afro-American Studies.

Anthropology 120 Prehistoric Archaeology; 130 Cultural Anthropology; 230 American Cultures; 382 Principles of Archeology.

Botany 305 Socio-Economic Impact of Plants.

Economics 100 Survey of Economic Ideas; 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 Afro-American Music (Same as Afro-American Studies 310); 390 World Music.

Political Science 101 United States Government and Politics; 102 Introduction to Political Science; 310 Political Community; 107 Honors: United States Government Politics.

Psychology 110 General Psychology; 117 Honors: General Psychology; 220 Behavior and Experience: Humanistic Psychology.

Religious Studies 232 Varieties of Religious Community (Same as Sociology 232); 301 Religious Myth, Symbol, and Ritual.

Sociology 100 General Sociology; 110 Social Problems and Social Change; 344 Power in Society; 370 Social Psychology.

Speech Communication 100 Introduction to Speech Communication; 220 Interpersonal Communication; 300 Nonverbal Communication; 330 Group Communication.

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

d. Humanities Purpose:

a. To learn to appreciate and interpret significant literary, philosophical, or religious texts by study and application of selected methods or traditions of thought.

b. To develop further abilities to reason critically, to construct arguments, to think creatively, to analyze objectively, to assess evidence, to test assumptions, and to respond to and appreciate values.

c. To develop further writing skills.

d. To learn to manipulate symbols (i.e. words, sounds, images, body movements) in a variety of ways and to employ these symbols critically, affectively, and evocatively.

e. To develop abilities to participate as an enlightened observer or as an artist in a discipline within the visual, spatial, musical, theatrical, rhetorical, or written arts.

Requirement:

a. Bachelor of Arts students:

1. Part I: Literature or Philosophical Perspectives. A two-semester course package in either literature or a philosophical perspective.

2. Part II: Arts, Literature or Philosophical Perspectives. Either one course in the study or practice of the arts, or one course in literature if a philosophical perspectives package is chosen to meet Part I, or on course in a philosophical perspective if a literature package is chosen for Part I. Writing Emphasis Courses, except for hands-on practice of the arts courses.

b. Bachelor of Science students must complete a minimum of 6 credits from the courses listed below; not more than 3 credits may be taken in the Arts.

1. The following course packages are designated literature packages:

- Classics 283-284 Greek and Roman Literature in English Translation.
- Comparative Literature 202-203 Cross-cultural Perspectives in World Literature.
- English 201 British Literature I: Beowulf through Johnson; 202 British Literature II: Wordsworth to the Present; 221 Literature of the Western World I: Ancient, Medieval and Renaissance; 222 Literature of the Western World II: Enlightenment, Romantic and Modern.
- (two of three) 231 American Literature I: Colonial Era to the Civil War; 232 American Literature II: Civil War to the Present; 233 Major Writers.
- (two of three) 251 Introduction to Poetry; 252 Introduction to Drama; 253 Introduction to Fiction.
- Franc 291-292 French Literature in English Translation.
- German 321 Works of Dostoeyevsky in English Translation; 322 Works of Tolstoy in English Translation; 325 Modern German Novel in English Translation; 326 German Drama in English Translation.
- Medieval Studies 261 Medieval Culture: Readings from the Early Middle Ages, 500-1000; 262 Medieval Culture: Readings from the Later Middle Ages, 1000-1500.
- Russian 221-222 Russian Literature in English Translation.
- Spanish 291 Spanish Literature in English Translation; 292 Spanish American Literature in English Translation.

2. The following course packages are designated philosophical perspectives packages:

- Classics 221 Early Greek Mythology; 222 Classical Greek and Roman Mythology.
- Philosophy 110 The Human Condition:

*Writing Emphasis Courses shall require out-of-class writing assignments of at least 3000 words plus at least one in-class essay examination.
Value and Reality; 111 The Human Condition: Knowledge and Reality; 120 Foundations of Western Thought: Antiquity through 1500; 121 Foundations of Western Thought: 1500 through Early Twentieth Century; 240 Ethics; 344 Professional Responsibility (Same as Religion 344); 380 The Concept of Woman (Same as Women's Studies 380); 382 Philosophy of Feminism (Same as Women's Studies 382).

Religious Studies 101 World Religions in History; 102 The Comparison of World Religions.


English 263 Introduction to Creative Writing; German 323 German Film; Music General 100 Fundamentals of Music; 130 Music Performance; Speech Communication 280 Introduction to Oral Interpretation; 380 Oral Interpretation of Prose Literature; 385 Oral Interpretation of Poetry.

Theatre 220-221 Acting; 260 Fundamentals of Lighting and Sound Production.

4. The following courses are designated Study of the Arts courses:
   c. To develop a critical understanding of the
   d. To develop an understanding of the rela-
   tionship between individual and societal beha-

   e. To further develop writing skills.

   The following courses are designated United States Studies courses:

   Writing Emphasis Courses shall require out-of-class writing assignments of at least 3000 words plus at least one in-class essay examination.

   Afro-American Studies 364 Contemporary Issues in Afro-American Education (Same as Ed. C&I 364); 429 History and Philosophy of Afro-American Education (Same as Ed. C&I 429); 480 Black Communities in Urban America; 483 Afro-American Women in American Society (Same as Women's Studies 483); American Studies 310 Introduction to American Studies.

   Anthropology 310 North American Indians; 312 Appalachian Culture; 315 Afro-American Anthropology (Same as American Studies 315); 360 North American Prehistory.

   Economics 331 Government and Business; English 332 Women in American Literature (Same as Women's Studies 332); 333 Black Atlantic Literature and Aesthetics; 334 Film and American Culture (Same as American Studies 334).

   Geography 361 Regional Geography of the United States and Canada; 363 Geography of the American South; 365 Geography of Appalachia; 425 Historical Geography of the United States.


   Philosophy 380 Philosophical Foundations of Democracy; 425 American Philosophy.

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

   Religious Studies 344); Society (Same as Women's Studies 344); 345 Black Atlantic Literature and Aesthetics; 346 Film and American Culture (Same as American Studies 346).

   Sociology 310 American Society; 340 Class Structure; 343 Race and Ethnicity (Same as Afro-American Studies 343); 455 Society and Law.

   Speech Communication 466 Rhetoric of the Women's Rights Movement (Same as Women's Studies 466).

   Theatre 312-313 History of the American Theatre.

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

b. Foreign Studies

   Purpose: a. To develop an appreciation and knowl-

   ledge of a foreign culture and civilization.

   b. To provide a basis from which a student can an-

   alyze her or his own culture.

   c. To develop a critical understanding of the

   sources of values and traditions that constitute a

   foreign culture and civilization.

   d. To develop an understanding of the rela-

   tionship between individual and societal be-

   havior.

   e. To further develop writing skills.

   The following courses are designated Foreign Studies courses:

   NOTE: If Western Civilization is taken to

   satisfy the non United States History require-

   ment under Divisional Distribution, the

   European concentration may not be elected

   here. This option may also be satisfied by

   literature courses in Arabic, Chinese, French,

   German, Greek, Hebrew, Italian, Japanese,

   Latin, Portuguese, Russian, Sanskrit, or

   Spanish. (Literature courses in English

   translation will not meet this requirement.)

   Africa

   Afro-American Studies 421 Comparative

   Studies in African and Afro-American Societies.

   Anthropology 314 Peoples and Cultures of

   Africa (Same as Afro-American Studies 314).

   Geography 379 Geography of Africa (Same

   as Afro-American Studies 379).

   Political Science 454 Government and

   Politics of China and Japan.

   Religious Studies 378 Philosophy and

   Religion in India (Same as Philosophy 378);

   379 Religion and Philosophy of China (Same

   as Philosophy 379); 383 Religion in Japan.

   Europe

   and the Soviet Union

   Anthropology 462 Early European Pre-

   history.

   Classics 331 Archaeology of the Aegean

   Bronze Age and Early Greece; 334 Cities and

   Sanctuaries of the Ancient Greek World; 381

   Greek Civilization: 382 Roman Civilization; 383

   Women in the Greek and Roman World (Same

   as Women's Studies 383).

   Economics 325 Economic History of the

   North Atlantic Community.

   English 301 British Culture to 1660; 302

   British Culture: 1660 to Present; 401 Medieval

   Literature.

   French 420 French Cinema; 431 Highlights

   of French Civilization; 324 Women in France.

   History 319 Modern Europe, 1750-1914;

   320 Contemporary Europe, 1900-present; 432

   Women in European History (Same as

   Women's Studies 432).

   Medieval Studies 403 Seminar in Medieval

   Studies.

   Philosophy 320 Ancient Western Philosoph-

   y; 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

   the Soviet Union; 468 Soviet Foreign Policy,

   Russian 371-372 Background and Main

   Currents of Russian Culture.

   Russian and East European Studies 410

   Selected Topics in Russian and East European

   Studies.

   Spanish 431 Spanish Civilization.

   Latin America

   Anthropology 313 Peoples and Cultures of

   Mesoamerica (Same as Latin American

   Studies 313).

   Economics 424 Political Economy of World

   Development (when topic is Latin American).
Music History 460 Music Aesthetics.
   Physics and Background of Physics; 402
   Forefront of Physics.
   Psychology 496 Senior Seminar: Great
   Ideas in Psychology.
   Spanish 459 Capstone Colloquio in
   Spanish; 460 Seminar in Latin American
   Urban Studies; 460 Senior Seminar.
   Zoology 409 Perspectives in Zoology.

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 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 the second half of their 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 Knoxville in each major awarded on this program. Students may elect as many courses as desired in any department or program. In lieu of a major, students may develop an Individualized Program (described below). Majors available in the Basic Program for a B.A. or B.S. include: Anthropology, Art, Art History, Audiology, Biochemistry, Biology, Botany, Chemistry, Classics, Computer Science, Economics, English, French, Geography, Geology, German, History, Human Services, Interdisciplinary Studies, Italian, Mathematics, Microbiology, Music, Musicology, Physics, Political Science, Psychology, Religious Studies, Russian, Sociology, Spanish, Speech Communication, Statistics, and Zoology.

(2) Optional Multiple Majors

After the general requirements of basic skills, distribution and a major have been satisfied, additional majors may be recorded on the transcript without regard to course overlap among majors or among the additional majors and Basic Skills and Distribution requirements. Students developing multiple majors must declare this intent at the time of application for admission. Majors available in the Basic Program for a B.A. or B.S. include: Anthropology, Art, Art History, Audiology, Biochemistry, Biology, Botany, Chemistry, Classics, Computer Science, Economics, English, French, Geography, Geology, German, History, Human Services, Interdisciplinary Studies, Italian, Mathematics, Microbiology, Music, Musicology, Physics, Political Science, Psychology, Religious Studies, Russian, Sociology, Spanish, Speech Communication, Statistics, and Zoology.

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

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

(4) Supplementary Elective Courses

At least one-fourth of each student's curriculum in the Basic Program will be made up of courses selected according to the individual's interests to supplement and support the work being done in the major and Basic Skills and Distribution requirements. This dimension of the student's experience in the University represents that freedom within which total education may be rounded out and enriched. Elective courses 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.

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

COLLEGE SCHOLARS PROGRAM

A limited number of freshmen, entering transfer students with fewer than 42 credit hours, and resident students with fewer than 62 on ditto sets is listed each year to enter this distinguished honors curriculum. Selection is based on previous academic record, test scores, recommendations, a written essay, and a personal interview. Admission is provisional for two semesters; continuation depends upon maintenance of a satisfactory record (normally 3.25 or above) and evidence of ongoing motivation and interest.

The College Scholars Program affords the highest degree of freedom to the student in developing a meaningful curriculum. Each program is worked out individually with a special advisor (tutor) who under ordinary circumstances continues to advise the student throughout the college career. Together they determine what kinds of course work and/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 program requirements for additional majors or minors, these will be recorded on the Scholars' transcripts. Scholars will not be required to meet Basic Skills or Distribution requirements in order to have such majors or minor officially recognized.

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

PRE-DENTAL PROGRAM

The college offers both a three-year program leading to a Bachelor of Arts degree and a four-year program leading to a Bachelor of Arts or Science degree for students preparing for the study of dentistry. Both programs are based upon the curriculum outlined below. In the three-year program the student must complete at least 93 credit hours while enrolled in the college, and the B.S. degree is granted upon satisfactory completion of the first year of study at UT-Memphis. In the four-year program the degree is granted upon completion of 124 or more credit hours while enrolled in the college, including a major of 24-27 hours in addition to the courses listed below. The requirement for a major is waived for those completing their fourth year at UT-Memphis. Students in either the three- or four-year program must complete the last 30 hours of credit in residence at The University of Tennessee, Knoxville, before entering UT-Memphis. Although the B.A. or B.S. degree is not required for admission to the College of Dentistry at Memphis, most of the students accepted into the study of dentistry have the baccalaureate degree before admission. Therefore, pre-dental students are encouraged to plan to complete all requirements for the B.A. or B.S. degree before enrolling in the College of Dentistry.

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<table>
<thead>
<tr>
<th>Hours</th>
<th>Credit</th>
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<tbody>
<tr>
<td>6</td>
<td>English 101, 102 or equivalent</td>
</tr>
<tr>
<td>6</td>
<td>Biology 110-120 or Zoology 117-127</td>
</tr>
<tr>
<td>5</td>
<td>Chemistry 120-130</td>
</tr>
<tr>
<td>6</td>
<td>&quot;Mathematics&quot;</td>
</tr>
<tr>
<td>6</td>
<td>&quot;Electives&quot;</td>
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</tbody>
</table>

PRE-MBA PROGRAM

The college offers a joint B.A./M.B.A. program with the College of Business Administration. Admission requirements are higher than those normally expected of M.B.A. applicants. Desired qualifications include a minimum of 3.4 GPA and a Graduate Management Admission Test Score of 600 or higher.

Students in this program take their first three years of coursework in Liberal Arts, and their last two years in the College of Business Administration. Within their first three years, students will fulfill all general education requirements for the B.A. degree, both upper and lower division, along with a minor offered by one of the Liberal Arts departments. They may use one Economics course only to fulfill distribution requirements, and they are required to take a year of calculus as the only pre-requisite to the M.B.A.

Students interested in the Dual B.A. / M.B.A. program are counseled initially in the Liberal Arts Advising Center regarding admission standards and Liberal Arts requirements. At the end of their second year, they will have a conference with the Associate Dean for Graduate Business Programs and be advised of their prospects for formal admission. If the student is a likely candidate, he/she will be advised to take the G.M.A.T. in October of the third year and to submit an application to the M.B.A. program. The admission decision will be made by January of the fourth year.

Upon admission, students will begin M.B.A. coursework in the fourth year and be awarded a B.A. degree at the end of that year. Students will take 3 hours of coursework during their senior year under the senior privilege rule, which requires them to notify the Graduate School in advance of the course for graduate credit. Upon successful completion of the fifth year the student will receive the M.B.A. degree.
### Medical Technology Curriculum

**Sophomore**
- Chemistry 350, 360, 369: 8
- Physics 221, 222: 8
- Divisional Distribution (D) Humanities Part I: 3
- Divisional Distribution (A) Non-U.S. History: 6
- Electives: 18

**Junior**
- Divisional Distribution (D) Humanities Part II: 3
- Divisional Distribution (C) Social Sciences: 6
- Upper Level Distribution (A.U.S. Studies in): 1
- Foreign Studies or (C) Capstone Experience: 6
- Electives: 18

**Senior**
- Completion of major program and B.A./B.S. requirements or completion of one year at UT-Memphis.

Total: 124 Minimum hours

**Medical schools require 8 hours of General Biology. If a student elects a course 150 (5 hours), it is recommended that he/she take Biology 210 (3 hours) to total 8 hours.**

- Math placement depends on high school courses and grades, ACT scores, and BA/BS requirements. A math placement handout is available in the Liberal Arts Advising Center, 220 Ayres Hall. Mathematics 141-142, 121-122 or 151-152 are prerequisites to Physics. All students must complete the Math Basic Skills requirements as outlined in the Liberal Arts curriculum.

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

- BA students must complete a minimum of 12 credits from at least two areas; BS students must complete a minimum of 6 credits from at least two areas for the Social Science requirement.

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

- Depending upon course selection, a student may require less than the listed elective hours to reach the total minimum of 83 hours. Although not specifically required by the College, the Health Professions Advisory Committee strongly recommends that students include additional work in the Social, Biological, and Behavioral Sciences.

<table>
<thead>
<tr>
<th>Year</th>
<th>Hours Credit</th>
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<tbody>
<tr>
<td>Freshman</td>
<td>1989-90</td>
</tr>
<tr>
<td>English 101-102</td>
<td>6</td>
</tr>
<tr>
<td>Biology 110-120 or Zoology 117-127</td>
<td>8</td>
</tr>
<tr>
<td>Chemistry 120-130</td>
<td>4</td>
</tr>
<tr>
<td>Basic Skills (B) Foreign Language (Intermediate Level Sequence)</td>
<td>6</td>
</tr>
</tbody>
</table>

**Sophomore**
- Chemistry 110 | 4 |
- Zoology 230 | 4 |
- Biology 210-220 | 8 |
- Microbiology 310-319 | 4 |
- Divisional Distribution (D) Humanities Part I | 3 |
- Divisional Distribution (A) Non-U.S. History | 6 |

**Junior**
- Microbiology 420-429 | 3 |
- Chemistry 310-319 and Biochemistry 310 | 7 |
- Microbiology 430 | 2 |
- Divisional Distribution Humanities Part II | 3 |
- Divisional Distribution Social Sciences | 6 |
- Upper Level Distribution (A.U.S. Studies in) (B) Foreign Studies or (C) Capstone Experience | 6 |

**Senior**
- Total: 92 hours
- Medical Technology course of study at UTMRCCH in Knoxville (12 month program)

<table>
<thead>
<tr>
<th>Hours Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Freshman</td>
</tr>
<tr>
<td>English 101-102; or equivalent</td>
</tr>
<tr>
<td>Chemistry 120-130</td>
</tr>
<tr>
<td>Basic Skills Foreign Language (Intermediate Level Sequence)</td>
</tr>
<tr>
<td>Mathematics</td>
</tr>
<tr>
<td>Divisional Distribution (A) Non-U.S. History</td>
</tr>
<tr>
<td>Sophomore</td>
</tr>
<tr>
<td>Biology 110-120 or Zoology 117-127</td>
</tr>
<tr>
<td>Chemistry 350, 360, 369</td>
</tr>
<tr>
<td>Spokane in the Liberal Arts curriculum</td>
</tr>
<tr>
<td>Divisional Distribution (D) Humanities Part I</td>
</tr>
<tr>
<td>Divisional Distribution (C) Social Sciences</td>
</tr>
<tr>
<td>Electives</td>
</tr>
<tr>
<td>Psychology 110</td>
</tr>
</tbody>
</table>

**Junior**
- Accounting 201 | 3 |
- Physics 221-222 | 3 |
- Divisional Distribution (D) Humanities Part II | 3 |
- Divisional Distribution (C) Social Sciences | 3 |
- Upper Level Distribution (A.U.S. Studies in) (B) Foreign Studies or (C) Capstone Experience | 6 |
- Electives | 7 |

**Senior**
- Completion of major program and B.A./B.S. requirements or completion of one year at UT-Memphis.

Total: 124 Minimum hours

**Or equivalent honors courses.**

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

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

**Science-Medical Technology Curriculum**

Students who complete the Science-Medical Technology Curriculum receive the B.S. degree with a major in medical technology from the College of Liberal Arts. The curriculum requires a minimum of 92 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 Memorial Research Center and Hospital in Knoxville (UTMRCH). After completion of the course of study at UTMRCCH, a Certificate of Laboratory Training is awarded by UTMRCCH. Students are then eligible for examination by the Board of Registration of the Tennessee State Board of Medical Examiners in order to be certified as registered medical technologists.

### Pre-Pharmacy Programs

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

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

The three-year program prepares students for admission to Pharmacy upon completion of a B.S. degree and the four-year program leading to either a B.A. or B.S. degree. The remaining two areas. BS students must complete a minimum of 6 credits in two of the three areas.

- Depending upon course selection, a student may require less than the listed elective hours to reach the
minimum total of 93 hours. Recommended electives include courses in computer science, and business administration, particularly accounting, economics, and marketing.

**PRE-VETERINARY MEDICINE PROGRAM**

The following program is designed for students who wish to pursue a Liberal Arts degree while preparing for the study of Veterinary Medicine. Students in this program must complete at least 53 credit hours while enrolled in the College of Liberal Arts, must satisfy the Basic Skills and Distribution requirements, and must complete the last 30 hours in residence at UT, Knoxville before enrolling in the College of Veterinary Medicine. A departmental major is not required. Upon successful completion of the first two years (two semesters) of the professional veterinary medicine curriculum, the Bachelor of Science degree will be conferred by the College of Liberal Arts.

A student must complete a minimum of 6 credits from the four lists under the Humanities requirement, not more than 3 credits may be taken in the Arts.

B.A. students must complete a minimum of 6 credits in one of the remaining two areas. B.S. students must complete a minimum of 6 credits in two of the three areas.

*Depending upon major selection, a student may require less than the listed elective hours to reach the minimum total of 93 hours.*

**PREPARATION FOR OTHER PROFESSIONS**

**LIBRARY SCIENCE**

Certain courses in the Graduate School of Library and Information Science are open to students in the College of Liberal Arts interested in beginning positions in a library or in preparation for future graduate study in professional librarianship. For further information, contact the School of Library and Information Science.

**PLANNING**

Students who wish to consider a career in city and regional planning or a related field will find a brief description of the program of the Graduate School of Planning on page 126. Students are accepted into planning from a broad variety of undergraduate backgrounds. Detailed information on the planning profession, admission requirements, and the program of study may be obtained from the Graduate School of Planning.

**TEACHING**

Students in the College of Liberal Arts who wish to be certified for secondary school teaching must satisfy certification requirements, as well as all major requirements of the College of Liberal Arts and must be recommended for certification by the College of Education. The College of Education is approved by the National Council for Accreditation of Teacher Education (NCATE) for recommendation by the college, therefore, in effect certifies the student in 30 states.

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

**COURSE LOAD**

The average course load in the college for any semester is 15-16 credit hours. The University defines full-time undergraduate students as those who register for a minimum of 12 hours. The minimum number of hours which may be taken by liberal arts students is 18, exclusive of elective work in ensemble music and physical education. Exceptions to this rule will require approval by the Associate Dean for Student Academic Affairs (229 Ayres).

**LOWER DIVISION—UPPER DIVISION**

Courses numbered at the 100 and 200 levels are considered lower division and are normally taken by students in the freshman and sophomore years. Courses numbered 300 and above are upper division and are designed for students at the junior and senior levels.

**Satisfactory/No Credit**

A few courses in the college are offered only on a Satisfactory/No Credit (S/NC) basis and students may elect to take others on this basis, except in areas where the option is specifically prohibited. Such courses, if successfully completed, will count as hours for graduation although the S/NC grades will be calculated in the student's grade point average. Satisfactory is defined as C or better work on the traditional grading scale and No Credit is defined as less than C. The following regulations apply:

1. S/NC courses, except those offered only on this basis, may not count for Basic Skills or Distribution requirements or major and minor requirements unless specifically permitted by petition. The petition must apply to major or minor prerequisites or corequisites.

2. The maximum number of S/NC elective hours which may be counted toward graduation is 20, exclusive of courses offered only S/NC, physical education courses, and/or satisfactory hours earned by examination, military service, etc.

3. A student who desires to take a course S/NC should indicate that intention at the time of registration. A change from S/NC grading to regular grading or from regular grading to S/NC will not be permitted beyond the add deadline in each semester. (Exception: Students who register for a course S/NC in a restricted area will be required to change to regular grading when the error is discovered.)

4. A transfer student who has more than 20 S/NC or equivalent hours earned prior to admission to The University of Tennessee, Knoxville, may count all of these hours toward graduation but may not elect additional S/NC hours.

5. A transfer student with S/NC or equivalent credit must petition for admission to The University of Tennessee, Knoxville, 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 to motivate 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 undertaken only with prior approval of the faculty member and the department concerned. It may include certain kinds of work experiences, community involvements, working in political campaigns, etc. Credit per semester will vary from 1-15 hours. Up to 21 hours of credit earned in this way may be applied toward a degree in the college, although individual departments may
limit the number of hours which may be applied toward a specific major.

INDEPENDENT STUDY

Certain educational goals may best be met through independent study done by an individual under the direction of a faculty member. Students who wish to do such independent work should obtain the approval of the faculty member and the departments concerned prior to embarking upon their study. Credit per semester will vary from 1-15 hours. Up to 21 hours of credit earned in this way may be applied toward a degree in the college, although individual departments may limit the number of hours which may be applied toward a specific major.

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

AFRO-AMERICAN STUDIES

See Interdisciplinary Programs.

AMERICAN STUDIES

See Interdisciplinary Programs.

ANCIENT MEDITERRANEAN CIVILIZATIONS

See Interdisciplinary Programs.

ANTHROPOLOGY

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

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

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

Assistant Professors:
M.A. Bass, Ph.D., Kansas State (part-time); A. Galloway, Ph.D., Arizona.

Research Assistant Professor:
S. Tardiff, Ph.D., Michigan State.

Anthropology 110, 120, and 130 are prerequisites to a B.A. major in anthropology, which consists of Anthropology 450 and 27 additional hours of upper division course work in Anthropology. This course work shall be distributed as follows:
(1) one course from categories (a), (b), (c), and (d); and two courses from category (e).
(a) archaeological method and theory: 361, 362, 440, 464.
(b) archaeological area: 360, 461, 462, 463.
(c) cultural area: 310, 311, 312, 313, 314, 315.
(d) cultural and method and theory: 410, 411, 412, 413.
(e) biological anthropology: 480, 490, 494, 495, 496.

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

Students with senior standing are encouraged to substitute appropriate 500 level courses (with permission of the instructor of the course and approval of the Department Head) for any portion of (1) or (2) above. Anthropology 110, 120, 130 are prerequisites to a minor in anthropology, which consists of 15 hours of upper division Anthropology courses, chosen in consultation with an Anthropology advisor.

ART

Professors:

Associate Professors:

Texas A&M; M.C. Wheeler (Emerita), Ph.D., Yale.

Assistant Professors:

B. F. A. in Studio Art

The B.F.A. in Studio Art is a professionally oriented degree designed principally for those students planning careers or graduate study in the visual arts. Majors must pass a portfolio review, usually at the end of the sophomore year in order to be admitted into upper division courses and concentrations. 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.

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

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

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

Basic Requirements

<table>
<thead>
<tr>
<th>Hours Credit</th>
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</thead>
<tbody>
<tr>
<td>Core</td>
</tr>
<tr>
<td>Art History 171, 172, 173</td>
</tr>
<tr>
<td>Additional hours</td>
</tr>
<tr>
<td>Studio 101, 103</td>
</tr>
<tr>
<td>Studio 295</td>
</tr>
<tr>
<td>Studio 211 Painting I</td>
</tr>
<tr>
<td>6 hours for the following: Filmic Art (203 or 203 or 203 or 204); 224 Life Modeling; 110 Metal Design; 231 Photography; 222 Film Design; 221 Ceramics</td>
</tr>
<tr>
<td>Total: 46</td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th>Hours Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Core</td>
</tr>
<tr>
<td>200 level</td>
</tr>
<tr>
<td>Portfolio Review (Pre-requisite to 300 and 400 courses) (SNC)</td>
</tr>
<tr>
<td>300 and 400 level</td>
</tr>
</tbody>
</table>

*Approved Studio Electives for Concentration | 9 |

Total: 32

Studio Electives

Additional hours in studio course electives to be completed in the Art Department or at our 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, Broadcast Journalism, Computer Science, Vocational Technical Education, Interior Design or Theatre. Students electing a joint Art/Art Education degree (B.F.A./B.S.) may take 15 hours in Art Education courses.

<table>
<thead>
<tr>
<th>Hours Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Core</td>
</tr>
<tr>
<td>General Curriculum</td>
</tr>
<tr>
<td>English Composition</td>
</tr>
<tr>
<td>Non-U.S. History/Social Science</td>
</tr>
</tbody>
</table>

Total: 15 hours
Design and Professional Electives
Art 259, 292, 231, 355, 392, 396, 404, 405, 450, 491, 492, 496; Advertising 250, 350, 490;
Marketing 301

Professional Electives
Advertising 250, 350; Broadcasting 330;
Marketing 301

ILLUSTRATION CONCENTRATION

Art Core
Art 171, 172, 173
Art History electives
Art 101, 103
Art 295, 211, 219 (or 215)

Illustration
Art 350 (S/NC) electives
Art 212, 9 hours of electives
Art 231
Art 151, 251, 252, 351, 355, 455 in sequence
Art 358
Art 353, 354, 453, 454 in sequence

Total: 28

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

Total: 44

B.A. Major in Art History

Prerequisite: Art 101, 295, 103

Hours Credit
Major: Art History courses numbered 200 and above (May include Greek and Roman Art and Archeology, Department of Classics)

Total: 39 hours

B.A. Major in Studio

Prerequisite: Art 101, 295, 103

Hours Credit
Major: Art History courses numbered 200 and above

Total: 40 hours

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

B.A. Minor in Art History

Prerequisite: Art 172, 173

Minor: Art History courses numbered 200 and above

Total: 21 hours

B.A. Minor in Studio

Prerequisites: Art 101, 103, 295

Hours Credit
Minor: Art History courses numbered 200 and above

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 Department 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, Department of Art. Facilities include well equipped studios, on campus book and supply store, a large auditorium, art library, and resident accommodations. The Arrowmont Gallery presents changing juried, invitational, theme or media oriented exhibitions. The Gallery and Library are open to the public Monday-Saturday, 8:30 a.m. - 5:30 p.m. Arrowmont receives financial support from the University and the Department of Art.
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.

AUDIOLINGUISTIC AND SPEECH PATHOLOGY

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

Associate Professors:

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

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

The Department of Audiology and Speech Pathology offers course work in the scientific study of human communication sciences and disorders. The two undergraduate majors (audiology and speech pathology) are preparatory to graduate work and to professional certification in some aspect of speech, language and hearing disorders. The master's degree is required for most professional certificates and employment positions.

Information about the audiology and speech pathology programs may be obtained from the departmental office, 457 South Stadium Hall, and students are strongly encouraged to consult with the undergraduate advisors in the department as early as possible in their programs. Suggested elective courses for students not majoring in Audiology and Speech Pathology include 304, 305, 320, 371, 465 and 473; 430, 440, 445, 461, 494, and 495.

The B.A. major in speech pathology consists of Audiology and Speech Pathology 304, 305, 306, 320, 331, 401, 404, 433, 445, 461, 473, and 494 plus not fewer than 3 nor more than 6 hours from the following: 434, 435, 446, 455, 463, 494.

The B.A. major in audiology consists of Audiology and Speech Pathology 304, 305, 306, 320, 331, 404, 433, 445, 461, 473, and 494 plus not fewer than 3 nor more than 6 hours from the following: 434, 435, 446.

Additional recommended courses for audiology and speech pathology majors include appropriate coursework from: Anthropology, Biology, Curriculum and Instruction, Educational Psychology, Psychology, Physics, Special Education and Child and Family Studies. Students majoring in Audiology and Speech Pathology are strongly encouraged to consult frequently with their advisors before selecting additional recommended courses.

BACTERIOLOGY
See Microbiology.

BIOCHEMISTRY

Professors:
W.D. Wicks, Ph.D. Harvard (Head); J.E. Churchich, Ph.D. Sheffield (England); L. Huasheng; Ph.D. Michigan State; J.G. Joshi, Ph.D. Poona (India); K.J. Monty, Ph.D. Rochester.

Associate Professors:
J. Koontz, Ph.D. Kentucky.

Assistant Professors:
E. Howell, Ph.D. Lehigh; D. Roberts, Ph.D. California (Davis); E. Serperu, Ph.D. Hacettepe (Turkey).

The B.S. major in Biochemistry consists of Biology 210-220, Chemistry 350-360, 369, Physics 221-222, Biochemistry 410, 419, 420, 471, 481, and 3 hours chosen from: Biochemistry 452; Botany 321; Microbiology 310, 319, 410, 430, 439, 440, Zoology 330, 350, 410, 430, 439-440, 440-449, Zoology 330-331, 350, 360, 400, 403, 404, 410, 420, 440, 445, 449, 460, 465, 490. Not more than 8 hours may be selected from one department. No more than 3 credits of research courses may be counted toward the major.

BIOLOGY CONSORTIUM

Director:
R.W. Beck, Ph.D. Microbiology.

Basic Faculty:

The B.S. major in Biology may be obtained by completing one of three concentrations: Cell Biology and Organismal Biology, Ecology, or Microbiology. Prerequisites for all three concentrations are Biology 150 or 110-120, or Botany 110-120 or 118-126, or Zoology 117-118, and Chemistry 120-130. At least 12 hours of upper division courses. Upper division courses must be selected from Biochemistry 419, 420, 430, 440, 452; Botany 310-320, 321, 412, 441, 451; Microbiology 310-319, 410, 419, 430-439, 440-449, Zoology 330-331, 350, 360, 400, 403, 404, 410, 420, 440, 445, 449, 460, 465, 490. Not more than 12 hours may be selected from one department. No more than 3 credits of research courses may be counted toward the major.

Concentration in Organismal and Systems Biology consists of Biology 210, 220, 230, Chemistry 350, 360, 369, and 18 hours of upper division courses. Prerequisites for all three concentrations are Biology 150 or 110-120, or Botany 110-120 or 118-126, or Zoology 117-118, and Chemistry 120-130. At least 12 hours of upper division courses. Upper division courses must be selected from Biochemistry 419, 420, 430, 440, 452; Botany, any 300- or 400-level courses but not more than one course from 305, 306, or 309; Microbiology, any 300- or 400-level courses; Zoology, any 300- or 400-level courses. At least 6 hours must be at the 400 level. Not more than 12 hours may be selected from one department. No more than 3 credits of research courses may be counted toward the major.

Concentration in Ecology consists of Biology 210, 220, 230, Chemistry 350, 360, 369, one course from among Botany 431, Zoology 450 or 460; either Zoology 470 or Botany 345; and one course from among Zoology, Forestry, Wildlife and Fisheries Science 311, 315 or Wildlife and Fisheries Science 443, 444, or 445. An additional 9 hours must be chosen from among these courses: Either Biochemistry 419-420; Botany 321, 330, 401, 402, 403, 431; one course from among Geography 413, 433, or 434; Microbiology 470, 479; Zoology 445, 450, 459, 460, 470.

A Minor consists of Biology 210, 220, and 230 and 8 hours of upper division courses chosen from the list below. Biochemistry 410-419; Botany, any 300- or 400-level courses; Microbiology, any 300- or 400-level courses; Zoology, any 300- or 400-level courses. (In meeting the upper division minimum requirement, not more than 6 hours may be credited from any one biological science department, and not more than 3 hours of research courses may be credited.) Prerequisites to the minor are introductory biology courses (Biology 110-120 or Botany 118-128 or Zoology 117-118) and Chemistry 120-130.

BOTANY

Professors:
K.W. Hughes (Head), Ph.D. Utah; J.D. Caponetti, Ph.D. Harvard; E.E.C. Clebsch, Ph.D. Duke; H.R. DeSelm, Ph.D. Ohio State; A.M. Evans, Ph.D. Michigan; W.R. Herndon (Alumni Distinguished Service Professor); Ph.D. Vanderbilt; L.G. Hickok, Ph.D. Massachusetts; R.W. Holton, Ph.D. Michigan; L.W. Jones, Ph.D. Texas; J.F. McCormick, Ph.D. Emory; B.C. Mullin, Ph.D. North Carolina
CHEMISTRY

Professors: G. Mamantov (Head and Alumni Distinguished Service Professor), Ph.D. Louisiana State; J.E. Bloo, Ph.D. Manchester (England); N.S. Bowman (Emeritus), Ph.D. Princeton; W.E. Bull, Ph.D. Illinois; J. C. Chambers, Ph.D. Kansas; J.A. Dean (Emeritus), Ph.D. Michigan; J.F. Eastham, Ph.D. California (Berkeley); W.H. Fletcher (Emeritus), Ph.D. Minnesota; F.A. Grimm, Ph.D. Cornell; G.A. Guichon (Distinguished Scientist, Science Alliance Center of Excellence), Ph.D. Universite de Paris (France); G.W. Kabalka, Ph.D. Purdue; D.C. Kleinfelder, Ph.D. Princeton; M.H. Lietzke, Ph.D. Wisconsin; L.J. Magid (Associate Dean), Ph.D. Tennessee; R.M. Magid, Ph.D. Yale; R.M. Pagen, Ph.D. Wisconsin; J.R. Peterson, Ph.D. California (Berkeley); G.K. Schweitzer (Alumni Distinguished Service Professor), Ph.D. Illinois; W.T. Smith (Emeritus), Ph.D. Ohio State; W.A. Van Hook, Ph.D. Johns Hopkins; J.E. Bartmess, Ph.D. Northwestern.

Associate Professors: J.L. Adamson, Ph.D. Texas; S.D. Alexandratos, Ph.D. California (Berkeley); J.E. Bartmess, Ph.D. Northwestern; K.D. Cook, Ph.D. Wisconsin; J.D. Kovac, Ph.D. Yale; C.A. Lane, Ph.D. California (Berkeley); F.M. Schell, Ph.D. Indiana; M.J. Sepaniak, Ph.D. Colorado; A.S. Woods, Ph.D. Iowa State; G. Mamantov (Head and Alumni Distinguished Service Professor), Ph.D. Louisiana State; J.H. Shibata, Ph.D. Illinois; W.T. Smith (Emeritus), Ph.D. Ohio State; H.K. Schweitzer (Alumni Distinguished Service Professor), Ph.D. California (Berkeley); G.K. Schweitzer (Alumni Distinguished Service Professor), Ph.D. Minnesota; J.F. Eastham, Ph.D. Louisiana State; J.H. Shibata, Ph.D. Illinois; W.T. Smith (Emeritus), Ph.D. Ohio State; J.H. Shibata, Ph.D. Illinois; W.T. Smith (Emeritus), Ph.D. Ohio State.

Assistant Professors: C.E. Barnes, Ph.D. Stanford; C.S. Felger, Ph.D. Colorado; J.H. Shibata, Ph.D. Washington.

Bachelor of Science in Chemistry

Students who desire to major in chemistry may select 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, ask the Liberal Arts Advising Center for assignment of a faculty advisor in the Department of Chemistry. For further information, contact the Head of the Department of Chemistry, 575 Buehler Hall.

The major consists of Chemistry 310, 319, 350-360, 369, 471-481 or 473-483, 479, and 10 hours of additional work in chemistry that includes at least one laboratory course or lecture/laboratory course: up to 6 hours of Biochemistry 410-420 or Geology 460 may be applied to the 10-hour requirement.

B.S. Degree and Chemistry Major

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

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

Prerequisites to the major are Chemistry 120-130 or (preferably) 121-131 or 128-138, Chemistry 140, and Mathematics 141-142 or 151-152. Corequisite to the major is Physics 210-220 or 211-231.

The major consists of Chemistry 310, 319, 350-360, 369, 471-481 or 473-483, 479, and 10 hours of additional work in chemistry that includes at least one laboratory course or lecture/laboratory course: up to 6 hours of Biochemistry 410-420 or Geology 460 may be applied to the 10-hour requirement.

CURRICULUM REQUIREMENTS:

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours Credit</th>
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<tbody>
<tr>
<td>Chemistry 120-130 or (preferably)</td>
<td>121-131 or</td>
</tr>
<tr>
<td>(or 128-138)</td>
<td>128-138</td>
</tr>
<tr>
<td>Mathematics 141-142</td>
<td>8</td>
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<tr>
<td>English Composition</td>
<td>6</td>
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<tr>
<td>Foreign Language (intermediate level sequence)</td>
<td>6</td>
</tr>
<tr>
<td>Distribution</td>
<td>3</td>
</tr>
<tr>
<td>Chemistry 140</td>
<td>2</td>
</tr>
</tbody>
</table>

For students planning careers in chemistry, the recommended courses (from the list above) are Mathematics 141-142, Physics 131-231, and Chemistry 473-483; although not required, certain additional courses are strongly suggested for students planning to become chemists: Mathematics 241-251 and Chemistry 231-232 and 401. Because professional chemists need a reading knowledge of foreign languages, intermediate level competency should be acquired in German, French, or Russian. Students who are undecided about their career goals may consult a chemistry faculty advisor at the earliest opportunity. Unlike the Bachelor of Science in Chemistry, the regular B.S. degree is not approved by the Committee on Professional Training of the American Chemical Society.

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

Cooperative Program
A cooperative program is available to students who are chemistry majors. After the freshman year, the student alternates a semester in school with a semester in a job in the chemical industry. The program normally requires five years and involves a total of four work semesters and eight school semesters. Students are required to have at least a 2.5 average to enter and remain in the program. Some interested students may 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 requirements of a year of general chemistry and which serve as prerequisites for upper-division courses are 120-130, 121-131, and 128-138; chemistry majors are strongly encouraged to take either of the latter sequences. Courses 100 and 110 emphasize laboratory techniques in chemistry, and may be used as prerequisite only for 431.

It is possible to move from one sequence to another if permission for substitution is obtained in advance. For example, a student who finds a need to complete the 120-130 series after having completed 100 may substitute 100 for 120 with approval of the Department of Chemistry and may then take 130. Credit may be received for only one of the courses 100, 120, 121, or 128.

In any chemistry course above the freshman level which has Chemistry 130 as a prerequisite, 110 may be used as a prerequisite with approval of the Department of Chemistry.

Chemistry 128-138 is an honors course designed for 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 necessary, performance on a placement examination to be given during the first class meeting. A student receiving a passing grade below B in 128 will complete the year's work by taking 130 or 131.

Beginning students who have had high school chemistry and who have had additional experience (e.g., summer institute study, special research projects, 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 sequences of general chemistry. If a satisfactory grade is made on the examination, credit will be allowed for the semester (or course) for which the exam was taken. The Department of Chemistry gives credit in general chemistry to students who present satisfactory scores on the Chemistry Advanced Placement Examination.

CHINESE
See Interdisciplinary Programs (Asian Studies).

CLASSICS

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

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

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

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

The Greek minor consists of 18 hours including 12 hours of Greek language courses numbered above 200, and 6 hours chosen from Classics 221-222, 331, 334, 491. The student minoring in Greek is encouraged to take Classics 422 (capstone).

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

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

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

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

COMPARATIVE LITERATURE
See Interdisciplinary Programs.

COMPUTER SCIENCE

Professors:
J.H. Poore (Head), Ph.D. Georgia Tech; Jack Douglass, Ph.D. New Mexico; R.C. Gonzalez (ECE), Ph.D. Florida; G.R. Sherman, Ph.D. Purdue; M.G. Thomason, Ph.D. Duke.

Associate Professors:
J.D. Case, Ph.D. Illinois; B.W. Char, Ph.D. Berkeley, M.A. Langston, Ph.D. Texas A&M; B.J. MacLennan, Ph.D. Purdue.

Assistant Professors:
J.R.S. Blair, Ph.D. Pittsburgh; D.C. Mutchler, Ph.D. Duke; D.W. Straight, Ph.D. Texas; M.D. Voser, Ph.D. Texas; M. Zemankova, Ph.D. Florida State.

Instructor:
J.W. Mayo, M.S. Tennessee.

The undergraduate major in computer science contains five areas of concentration: Computer Systems, Information Systems, Scientific Computing, Theory of Computation, and Machine Intelligence. Some courses are applicable to more than one concentration; consult the Department for details.

100 or 102 and 111, 112 are prerequisite to a major in computer science which consists of 219, 311, four out of 320, 340, 360, 380, Mathematics 371, plus fifteen hours at the 300 and 400 level. All students must take at least 9 of the 15 hours in one of the concentration areas and must also meet the requirements for the concentration as specified by the Undergraduate Committee.

Mathematics 141-142, 221-222, Physics 151-152 and English 456 or 459 are also required. Students must elect a two-semester lab science sequence in either Biology or Chemistry, or a sequence approved by the Computer Science Department.

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

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

Progression to the Major:
A student may progress to the major or minor program only after completing courses specified by the department. These courses are listed in the Undergraduate Handbook available in the department. Students who
have completed the specified courses with a minimum GPA of 3.0 and to the major or minor program must apply to the departmental office. This should be done as soon as the stated requirements are met so that a decision can be reached prior to the registration deadline for the next semester. Those who are not accepted into the Computer Science degree program will be counseled and advised of educational alternatives.

For undergraduate Computer Science majors who have taken at least three computer science courses at UT, Knoxville, grades in all computer science courses from UT, Knoxville, excluding service courses, will be averaged. If a course is repeated, all grades received for the course will be counted.

A student must have a Computer Science grade point average (as described above) of 2.50 or better in order to be retained in the major. If a student's Computer Science grade point average drops below 2.50, the student will be given a warning. If after one more semester's grades have been received, the student's Computer Science average has not risen to 2.50, the student will be dropped as a major in Computer Science.

A student who desires to be readmitted after being withdrawn as described above must attain an average in Computer Science courses (computed as described above) of at least 2.70.

**ECOLOGY**

Director:
Dewey L. Bunting

Basic Faculty:

**ECONOMICS**

See faculty listing the College of Business Administration.

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

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

**Requirements for a B.A. major in economics consist of:** (1) Economics 201 or equivalent honors courses as a prerequisite to the major and (2) Economics 311 and 313 plus 21 additional hours in upper division economics courses. Majors are encouraged to satisfy Part II of the Natural Science Distribution Requirement with one of the mathematics packages.

**Minor consists of:** (1) Economics 201; and (2) 9 additional hours in economics at the upper-division level. Minors are encouraged to include Economics 311 and 313.

In addition, certification to teach economics in secondary schools is available. Students with such interest should consult the Certification Clerk, Room 212, Claxton Education Building as early in their program as possible to determine the appropriate requirements.
Major Requirements: At least 36 semester hours of course work in the English Department, 30 of which must be at the 300 or 400 level. For all English Majors: (1) English 201-202 (British Literature), 221-222 (Literature of the Western World), or any two of 231-232-233 (American Literature). This requirement should be satisfied if possible, before the student takes courses at the 300-400 level; and (2) English 371 or 372 (study of the English language).

Concentration in Literature: Nine English courses at the 300-400 level, including: (1) English 376 (Colloquium in Literature), to be taken, if possible, near the beginning of the student's major program; (2) at least four courses in literature before 1900, including at least two before 1800 (see departmental brochure, Undergraduate Study in English, for a course list); and (3) four other courses, at least one of which is based on an approach to literature other than literary history (see departmental brochure, Undergraduate Study in English, for a course list).

Concentration in Writing: Nine courses at the 300-400 level, including: (1) a two-course sequence in expository, technical, or creative writing; (2) three other courses in writing; and (3) four other courses, at least three of which must be literature courses selected in consultation with the advisor.

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

Honors: For students who qualify, the English Department offers 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, in introduction to the various genres, and in American, British, and world 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 scores, and grades of A or B in English 368 and 488.

A B.A. major in Geography Geography 131 and 132 are prerequisite to a major in Geography, which consists of Geography 310, 320, 330, 340, 415 and 495, along with an additional 18 hours selected from geography courses at the 300 and 400 levels. At least one course must be chosen from among Geography 361, 363, 365, 372, 373, 375, and 379, and at least nine of the 18 additional hours must be at the 400 level.

Minor: Courses numbered 131 and 132 are prerequisite to a minor in Geography, which consists of Geography 310, 320, 330, 340, and six additional hours of upper division work in geography, including at least three hours at the 400 level.

FRENCH

See Romance Languages.

GEOGRAPHY

Professors: S.R. Jumper (Head), Ph.D. Tennessee; C.S. Alken, Ph.D. Georgia; T.L. Bell, Ph.D. Iowa; J.R. Carter (Associate Director, UT Computing Center), Ph.D. Georgia; E.H. Hammond (Emeritus), Ph.D. California (Berkeley); R.G. Long (Emeritus), Ph.D. Northwestern; C.W. Minkel (Vice Provost and Dean for Graduate Studies), Ph.D. Syracuse; C.T. Patuldan, Ph.D. Colorado; B.A. Raulston, Ph.D. Northwestern; T.H. Schmude, Ph.D. Wisconsin; T.J. Wilbanks (Adjunct), Ph.D. Syracuse.

Associate Professors: T.J. Blasing (Adjunct), Ph.D. Wisconsin; L.W. Brouns (Adjunct), Ph.D. Ohio State; R.A. Foresta, Ph.D. Rutgers; L.M. Pulipher, Ph.D. Southern Illinois; J.B. Rehder, Ph.D. Louisiana State.

Assistant Professors: C.P. Harden, Ph.D. Colorado (Boulder); S.P. Horn, Ph.D. California (Berkeley).

A B.A. major in Geography Geography 131 and 132 are prerequisite to a major in Geography, which consists of Geography 310, 320, 330, 340, 415 and 495, along with an additional 18 hours selected from geography courses at the 300 and 400 levels. At least one course must be chosen from among Geography 361, 363, 365, 372, 373, 375, and 379, and at least nine of the 18 additional hours must be at the 400 level.

Minor: Courses numbered 131 and 132 are prerequisite to a minor in Geography, which consists of Geography 310, 320, 330, 340, and six additional hours of upper division work in geography, including at least three hours at the 400 level. Students who have successfully completed Geography 131-132 are considered to have satisfied this course requirement in the geography major or minor.

GEOLOGICAL SCIENCES

Professors: H.Y. McSween (Head), Ph.D. Harvard; R.D. Hatcher (UT, Knoxville/ORNL Distinguished Scientist), Ph.D. Tennessee; H.J. Kleioper (Emeritus), Ph.D. Ohio State; O.C. Kopp, Ph.D. Columbia; K.C. Misra, Ph.D. Western Ontario; R.E. McLoughlin (Emeritus), Ph.D. Tennessee; L.A. Taylor, Ph.D. Lehigh; K.R. Walker (Carden Professor), Ph.D. Yale; J.G. Walls (Emeritus), Ph.D. North Carolina.

Associate Professors: D.W. Byerly, Ph.D. Tennessee; T.W. Broadhead, Ph.D. Iowa; M. Clark, Ph.D. Pennsylvania State; P.A. Delcourt, Ph.D. Minnesota; S.G. Driese, Ph.D. Wisconsin; W.M. Dunne, Ph.D. Bristol; T.C. Labotka, Ph.D. Caltech; R.T. Williams, Ph.D. V.P.I.

Assistant Professor: Hazel R. Waage, Ph.D. Minnesota; W.M. Dunne, Ph.D. Bristol; Claudia I. Mora, Ph.D. Wisconsin.

Prerequisites to a B.S. major are: Geology 101-102, Chemistry 120-130, Mathematics 141-142; three semesters from Physics 131-132; Biology 110-120. This requirement includes a two semester sequence in one area plus a single semester in the other; the single semester may be satisfied by high school course work in that area.

Major requirement consists of: Geology 310, 320, 330, 340, 370 (16 hours); 3 courses from: Geology 410, 420, 440, 450, 460, 470, 480; and 6 hours of geology courses numbered 300 or above. Geology 440 (field camp) is strongly recommended for students planning a career in geology.

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

GERMANIC AND SLAVIC LANGUAGES

Professors: James E. Falen, Ph.D. Pennsylvania; Donald M. Fiene, Ph.D. Indiana; H.W. Fuller (Emeritus), Ph.D. Wisconsin; Henry Kratz, Ph.D. Ohio State; John C. Osborne, Ph.D. Northwestern; Martin P. Rice, Ph.D. Vanderbilt; Ursula C. Ritzenhoff, Ph.D. Connecticut.

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

Assistant Professor: Jerzy J. Kolodziej, Ph.D. Indiana.


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

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

Foreign Study: Students are encouraged to study abroad, particularly through participation in the University's International Student Exchange Program (ISEP). The department is also prepared to recommend summer study programs and year abroad programs for students who are interested in foreign study. Credits from recognized foreign study programs can readily be transferred to UT, Knoxville. For qualified students, the department also offers German 491 Foreign Study and Russian 491 Foreign Study. Students
should consult the department before registering for the foreign study course.

B.A. Major in Russian: Majors in Russian should carefully prepare their programs in consultation with a departmental faculty advisor. German 201-202 or the equivalent is a prerequisite to the major. The major shall consist of at least 24 hours of German in courses numbered above 300, including German 363 and usually including German 301-302. Courses in English translation or German 207 do not count toward the major. In order to graduate, majors will be required to take a proficiency test in German. It is recommended that German majors also take History 151-152 or 334-335 and 6 hours of 200 level English courses. Majors are also strongly urged to consider a minor in some other area of the humanities.

Minor in German: German 201-202 or its equivalent is a prerequisite to the minor. The minor in German 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). Majors in German may complete (a) a special major in International Business or International Logistics and Transportation, and (c) some form of practical experience related to the concentration. Admission is with the permission of the department faculty advisor. For more information contact the departmental office, 701 McClung Tower, or the program office, 601 McClung Tower.

B.A. Major in Russian: Russian 201-202 is a prerequisite to the major. The minor in Russian shall consist of at least 18 hours of Russian courses, including Russian 301-302; 311-312; 401-402; 451-452; and 6 hours from Russian 221, 222, 226, 321, 322, 326, 371, 372, or other courses numbered above 400. It is recommended that majors also take Russian History 340-341 and 6 hours of sophomore English. Majors are urged to consider a minor in some other area of the humanities.

Minor in Russian: Russian 201-202 is a prerequisite to the minor. The minor in Russian shall consist of at least 15 hours of Russian courses, including Russian 301-302; 311-312; and 6 hours from Russian 221-222 or other Russian courses numbered above 300.

GREEK
See Classics.

HEBREW
See Religious Studies.

HISTORY

Professors:
P.H. Bergeron, Ph.D. Vanderbilt; E.V. Chmielewski, Ph.D. Harvard; J.C. Cobb (Bernadotte Schmidt Professor), Ph.D. Georgia; J.R. Finger, Ph.D. Washington; L.P. Graf (Benwood Distinguished Service Professor and Emeritus), Ph.D. Harvard; Y.P. Hao (Lindsay Young Professor), Ph.D. Harvard; A.G. Haas, Ph.D. Chicago; R.W. Haskins (Emeritus); Ph.D. California (Berkeley); C.O. Jackson (Associate Dean, Liberal Arts College), Ph.D. Emory; M.M. Klein (Alumni Distinguished Service Professor), Lindsay Young Professor and Emeritus), Ph.D. Columbia; M.J. McDonald, Ph.D. Pennsylvania; L.A. Rutner (Dean, Liberal Arts), Ph.D. Cornell; W.B. Wheeler, Ph.D. Virginia.

Associate Professors:

Assistant Professors:
P.H. Brummett, Ph.D. Chicago; T.A. Diacon, Ph.D. Wisconsin; W.W. Farrier, Ph.D. Harvard; P.R. Gavitt, Ph.D. Michigan; C.L. Lansing, Ph.D. Michigan; B.L. Plummer, Ph.D. Maryland; C.D. Matson, Ph.D. Columbia.

The department's program is designed to provide students with a knowledge of their cultural traditions and of 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 in History: Majors in history should prepare their programs in consultation with the departmental faculty advisor. The major in Russian shall consist of at least 30 hours of Russian courses, including Russian 301-302; 311-312; 401-402; 451-452; and 6 hours from Russian 221, 222, 226, 321, 322, 326, 371, 372, or other courses numbered above 400. It is recommended that majors also take Russian History 340-341 and 6 hours of sophomore English. Majors are urged to consider a minor in some other area of the humanities.

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

INTERNATIONAL PROGRAMS

Director:
Jack Armistead (College of Liberal Arts)

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

AFRO-AMERICAN STUDIES

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

Assistant Professor:
Dr. Margaret P. Hartsell

The Afro-American Studies Program offers both a major concentration and a minor in Afro-American Studies. AAS courses are offered not only by the program itself but also by numerous departments within the College of Liberal Arts and some other colleges as well. This diversified sponsorship of AAS courses
enables the University to offer a particularly varied range of courses in the field of Afro-American Studies.

**Major concentration:** Afro-American Studies 201-202 are required in the concentration which consists of 24 hours from the Afro-American Studies curriculum. At least 15 hours must represent upper division credits. Majors are required to take AAS 431, preferably in their senior year. A maximum of 6 hours in AAS 402 and 403 combined can be applied toward the AAS major. In planning their program, majors must include courses from at least two other departments which crosslist courses with Afro-American Studies in addition to the AAS core offerings.

**Minor:** Afro-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 AAS 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 Afro-American Studies in addition to the AAS core offerings.

**AMERICAN STUDIES**

**Chair:**
Dr. George B. Hutchinson (English)

**Major concentration:** English 231 and either 232 or 233 are prerequisite to a major concentration in American Studies which consists of 27 upper-division semester hours including American Studies 310 and 440; at least one approved American History course besides History 460; and six hours of approved courses chosen from the following disciplines: anthropology, economics, political science, or sociology. Additional 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 (9 semester hours) help the student achieve a focus within the field. At least 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.

**ANCIENT MEDITERRANEAN CIVILIZATIONS**

**Chair:**
Dr. David W. Tandy (Classics)

**Co-chair:**
Dr. W.L. Humphreys (Religious Studies)

The major concentration in Ancient Mediterranean Civilizations consists of Classics 381 and 382, History 366, and 18 additional hours from the following list; distributed in such a way that no more than 12 hours are in any one of the three divisions: (a) Ancient Near Eastern Cultures: Religious Studies 311, 312, 326; (b) Greek Culture: Classics 221, 222, 223, 233, 331, 334, 383; History 310; Philosophy 120, 320; Political Science 475; Religious Studies 321, 322, 326; and (c) Roman Culture: Classics 222, 233, 254, 383, 462; History 311; Philosophy 120, 320; Political Science 475; Religious Studies 321, 322, 326, 416.

A minor in Ancient Mediterranean Civilizations consists of 18 hours, including at least two of the three core courses (Classics 381, 382; History 366). No more than nine of the remaining hours can come from one division. Courses of variable content, topics courses, reading and research, off-campus, or foreign study in the Departments of Art, Classics, History, Philosophy, or Religious Studies can be applied to the three divisions as approved. Students are encouraged to satisfy the foreign language requirement with Greek, Latin, or Classical Hebrew.

**ASIATIC STUDIES**

**Chair:**
Dr. Walter C. Neale (Economics)

The Asiatic 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. Corequisites to the major concentration are 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 Asiatic Studies minor consists of Asian Studies 101-102 and 15 credit hours at the 200 level and above. Twelve credit hours must be taken from courses within one of the four geographical-cultural areas. Six credit hours must come from Subdivision A and 6 from Subdivision B. Three hours must be taken from courses in another geographical-cultural area.

**CINEMA STUDIES**

**Chair:**
Dr. Charles Maland (English)

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

For further information consult the chairman of the Cinema Studies Program. Charles Maland, English Department. Other related courses in such departments as history, philosophy, and anthropology are approved through consultation with Dr. Maland.

**COMPARATIVE LITERATURE**

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

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

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

**LATIN-AMERICAN STUDIES**

**Chair:**
Dr. Michael H. Handelsman (Spanish)

The major concentration consists of 27 hours including Latin American Studies 401 and 402, three hours of either History 360 or 361, three hours of an approved Spanish or Portuguese literature/culture course at either the 300 or 400 level, and fifteen additional hours selected from courses offered by three different participating departments. 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 acquired independently is a prerequisite for majors and minors. All students are strongly encouraged to earn credit hours through UT, Knoxville's Latin American Studies Abroad Program at the Federal University of Ceará in Fortaleza, Brazil. Other foreign study programs are also available for Brazil and Spanish-speaking Latin America.

For further information, consult with Dr. Michael Handelsman (501 McClung Tower), Chairperson of the Latin American Studies Program.

LINGUISTICS

Chair:
Dr. Bethany K. Dumas (English)
Dr. Henry Kratz (German)

This major concentration offers a broad exposure to the various fields of linguistics (including historical, descriptive, theoretical, and applied linguistics) along with an opportunity to study areas where linguistics overlaps with other disciplines such as psycholinguistics, sociolinguistics, and speech pathology. The program of study is designed to prepare a student for graduate work in linguistics or related areas or to serve as a general survey of language and linguistics. The program of study provides the additional 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. Audiology and Speech Pathology 305 should be taken as soon as possible. Other 300-level courses should, if possible, be completed before 400-level courses are begun.

Corequisites: (a) Students must complete 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 (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); other non-Indo-European language sequences approved by the Linguistics Committee (required).

The concentration shall consist of 30 hours distributed as follows: (a) 24 hours composed of Audiology and Speech Pathology 305 (3); English 371, 372, and 471 (3,3,3); French, German, Russian or Spanish 425-426 (3.3); and Linguistics 420-430 (3.3); and (b) 6 hours of the following, selected in consultation with the Linguistics Coordinator: Anthropology 411 (3); Audiology and Speech Pathology 320, 465, 579, (3,3,3); Educational Curriculum and Instruction 457 (3); Special Education and Rehabilitation 522 (3), 532-533 (3.3); English 371, 372, 472, 475, 485, 508-509, 580 (3 hours each); French 421, 422, 521-522 (3 hours each); German 435-436 (3.3), 571-572 (3.3); Linguistics 400 (3); Philosophy 479 (3); Psychology 450, 482, 543, (3 hours each); Spanish 421, 422, 531-532 (2,3,3,3), Theatre 426 (4). Other hours may be substituted in (b) by approval of the Linguistics Committee.

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

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

MEDIEVAL STUDIES

Chair:
Dr. Paul Barrette (French)

A major concentration in Medieval Studies consists of Medieval Studies 201 and 403 and 21 hours of upper-division courses concerned primarily with the medieval experience, divided among the following three categories: (1) history, philosophy, political science, and religious studies; (2) language and literature; (3) the arts: history of art, architecture, music, and theater.

Courses should either form a related pattern (for example, courses in the literature and history of Medieval England or Italy), or should revolve around a particular discipline or two closely related disciplines (for example, courses in the history 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, as 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 planning a minor, major or minor, must be approved in advance by the Medieval Studies Coordinating Committee, chairperson Dr. Paul Barrette.

Category #1—History, Philosophy, and Political Science: History 312 Medieval History: 300-1100 (3); History 313 Medieval History: 1100-1400 (3); History 330 History of England from 1668 (3); History 334 History of Germany to 1815 (3); History 389 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 371 Early Christian and Byzantine Art to 1350 (3); Art 372 Northern European Painting, 1350-1600 (3); Art 381 Medieval Art of the West, 800-1450 (3); Art 382 The Art of Italy, 1250-1400 (3), and Music History 210 History of the Music to 1750 (3).

RUSSIAN AND EAST EUROPEAN STUDIES

Chair:
Dr. William Fierman (Political Science)

The major concentration consists of 30 hours from the following: Geography 376, five hours from History 340-341, Philosophy 393; Political Science 459 and four additional hours from Political Science 467, 574; Russian 311-312; Russian and East European Studies 410; and additional hours in courses numbered 301 and above offered by the Russian section of the Department of Germanic and Slavic Languages. Recommended prerequisites to the major concentration are the completion of Russian 201-202 and Russian Culture 371-372.

URBAN STUDIES

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

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

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

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

Approved Courses in other departments:
Geography 365 Geography of Appalachia;
Rural Sociology 380 Rural Sociology;

WOMEN'S STUDIES

Chair:
Dr. Martha L. Osborne (Philosophy)

Women's Studies encourages inquiry into the full range of the human experience by raising new questions and opening new areas of research concerning women. The discipline enriches the traditional liberal arts curriculum.
by adding new perspectives on women’s lives and accomplishments. Women’s Studies can broaden the education of both male and female students by helping them to understand the limits imposed on both sexes by narrowly defined sex roles. Wherever there is a need to understand women and an interest in the new role they are playing in society, Women’s Studies can enhance a student’s career preparation and opportunities.

The Women’s Studies Program offers a wide variety of courses, some interdisciplinary in nature and others originating in supporting departments throughout the university. These courses may be taken as electives, they may be used to satisfy requirements in various colleges, or they may serve as a concentration in Women’s Studies within an Interdisciplinary Program major or minor.

The major concentration in Women’s Studies consists of 30 semester hours including one of the Images of Women in Literature courses (either 210 or 215), Women in Society (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 (324, 360, 383, 432, 453, 461, 469), 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 Romance Languages.

JAPANESE
See Interdisciplinary Programs (Asian Studies).

LATIN
See Classics.

LATIN AMERICAN STUDIES
See Interdisciplinary Programs.

LINGUISTICS
See Interdisciplinary Programs.

MATHEMATICS

Professors: G.S. Gordon (Acting Head), Ph.D. Wisconsin; G.E. Albert (Emeritus), Ph.D. Wisconsin; D.F. Anderson, Ph.D. Chicago; G.A. Baker, Ph.D. Cornell; J.S. Bradley, Ph.D. Iowa; J.H. Carruth, Ph.D. Louisiana State; C.E. Clark, Ph.D.

Louisiana State; R.J. Daverman, Ph.D. Wisconsin; D.J. Dessart, Ph.D. Maryland; D.E. Dobbs, Ph.D. Cornell; E.D. Eaves (Emeritus), Ph.D. Texas; H. Frandsen, Ph.D. Illinois; T.G. Hallam, Ph.D. Missouri; D.B. Hinton, Ph.D. Tennessee; A.S. Householder (Emeritus), Ph.D. Chicago; L.S. Husch, Ph.D. Florida State; K. Johansson, Ph.D. Bielefeld, West Germany; G.S. Jordan, Ph.D. Wisconsin; B.A. Kupershmidt (Space Institute, Tullahoma), Ph.D. Massachusetts Institute Technology; H.T. Mathews, Ph.D. Tulane; R.M. McConnel, Ph.D. Duke; D.D. Miller (Emeritus), Ph.D. Michigan; B.S. Rajput, Ph.D. Illinois; K.C. Reddy (Space Institute, Tullahoma), Ph.D. Indian Institute of Technology; P.W. Schaefer, Ph.D. Maryland; S.M. Serbin, Ph.D. Cornell; K. Soni, Ph.D. Oregon State; F.W. Stailmann (Emeritus), Ph.D. Illinois; G.K. Stephenson, Ph.D. Wisconsin; E. Wachspress, Ph.D. Rensselaer Polytechnic Institute; W.R. Wade, Ph.D. California (Riverside); C.G. Wagner, Ph.D. Duke; S. Richter, Ph.D. Michigan.

Associate Professors: V. Alexiades, Ph.D. Delaware; N. Alilkosas, Ph.D. Brown; J. Dydak, Ph.D. Warsaw (Poland); L. Correll, O. Karakashian, Ph.D. Harvard; K. R. Kimble (Space Institute, Tullahoma), Ph.D. Ohio State; Y. Kuo, Ph.D. Cincinnati; S. Lenhart, Ph.D. Kentucky; J. Rosinski, Ph.D. Wroclaw University; H. Row, Jr., Ph.D. Wisconsin, H. Simpson, Ph.D. California Institute of Technology; J. Smith, Ph.D. California (Berkeley); B.K. Soni (Space Institute, Tulahoma), Ph.D. Texas; P. P. Soni, Ph.D. Oregon State; C. Sundberg, Ph.D. Wisconsin; M. Thistethwaite, Ph.D. Univ. Manchester (England).


Instructor: C.G. Doss, M.A. Tennessee.

B.S. Major: Mathematics 141-142 (or the Honors version, 147-148) is prerequisite to a minor in Mathematics. Majors must also have computer programming skills sufficient to take 371; students without other computing experience should take Computer Science 100, 101, or 102. The courses required for the major are: 221 Discrete Mathematics I (3); 231 Differential Equations I (3); 241 calculus III; or 247 Honors: Calculus III (4); 251 Matrix Algebra I; or 267 Honors: Matrix Algebra I (3); 323 Probability I (3); 341 Analysis I (3); 351 Algebra I (3); 371 Numerical Algorithms I (3); and nine additional hours selected from Mathematics 496 and Mathematics courses numbered 421 through 472.

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 12 additional semester hours during the sophomore year, in addition to the 12 hours required for the B.S. degree, 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 credit for more than 12 hours in Mathematics 496 and Mathematics courses numbered 421 through 472 may designate the 12 hours to be included in the above average.

Minor: Mathematics 141-142 (or 147-148) is prerequisite to a minor in Mathematics. A minor in Mathematics consists of (1) 241 and 251; (2) 221 or 231; and (3) nine additional hours in Mathematics courses numbered 300 or higher. The grade point average in the above courses must be at least 3.0.

MEDIEVAL STUDIES
See Cultural Studies.

MEDICAL BIOLOGY/MEMORIAL RESEARCH CENTER

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

MICROBIOLOGY

Professors: Dwayne C. Savage (Head), Ph.D. California (Berkeley); A. Brown (Emeritus), Ph.D. Chicago; R.W. Beck, Ph.D. Wisconsin; J.M. Becker, Ph.D. Cincinnati; D.A. Brian, Ph.D. D.V.M. Michigan State; T.C. Martine, Ph.D. Maryland; W.S. Riggsby, Ph.D. Yale; B.T. Rouse; Ph.D. Guelph (Canada); B.V.Sc., Bristol (England); G.S. Sayer, Ph.D. Idaho; D.C. White (Distinguished Scientist), M.D. Tufts, Ph.D. Rockefeller; J.M. Woodward (Emeritus), Ph.D. Kansas; C.J. Wust, Ph.D. Indiana.

Associate Professor: D. Bennis, Ph.D. Cornell; R.N. Moore, Ph.D. Texas (Austin); G. Stacey, Ph.D. Texas (Austin).

Assistant Professors: Robert J. Villafane, Ph.D. New York; J.P. Weir, Ph.D. Vanderbilt.

B.S. Major: Prerequisites are Biology 150 or 110-120, Chemistry 120-130, and Mathematics 151-152 or 141-142. The major consists of Biology 210-220, Chemistry 350-360,369.
Biochemistry 410, Microbiology 310, 319, 410, 429, 430, 439 and 8 additional hours of 400-level Microbiology courses, of which at least 1 hour must be a laboratory course.

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

MUSIC

Professors:

Associate Professors:

Assistant Professors:

Bachelor of Music Degree: The Department of Music offers curricula leading to the Bachelor of Music degree with concentrations in music theory, composition, electronic music, music history and literature, and applied music. (voice: piano; woodwind, brass, and percussion instruments; multiple keyboard instruments; multiple woodwind instruments; studio music and jazz; string pedagogy). This study prepares students for graduate music study or for positions in music for which a professional music degree is required. The Bachelor of Music degree (6 hours foreign language requirement) is in addition to the University admission requirement. Students may continue at the 200 level in a language begun in high school or elect to begin a new language at the 100 level. Students majoring in vocal performance must complete one year of each of two languages chosen from French, German and Italian. Students majoring in music history and literature must complete two years of either French or German.

ENSEMBLES
Ensemble participation during each semester of residence is required of all students studying applied music. String, woodwind, brass, and percussion students must attend scheduled concerts, partial fulfillment of applied music credit requirements.

APPLIED MUSIC

Ensemble participation during each semester of residence is required of all students studying applied music. String, woodwind, brass, and percussion students must meet the following requirement: (1) string students must participate in orchestra each semester; (2) woodwind, brass, and percussion students must attend scheduled concerts. A student's preference for musical ensemble membership is not guaranteed. Application for membership will include playing ability, music registration is necessary to completion of the semester. A student's preference for musical ensemble membership is not guaranteed. Application for membership will include playing ability, specific needs of various organizations, and previous performance experience at the University.

APPLIED MUSIC

Applied study is classified as Principal or Secondary. Students studying their principal (major) instrument register for credit appropriate to their program, 2-4 credit hours; students studying a secondary instrument register for 1 credit hour.

Students studying instruments from the 200 level must meet the following requirements: (a) concentration in music history and literature must complete two years of either French or German.

Musical minors include: Music History 200, 9 hours in music electives. Prerequisites are Music General 100 or equivalent and two semesters of applied music study.

BACHELOR OF ARTS DEGREE

Bachelor of Arts Degree: The Department 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 arts program.

Bachelor of Arts Major in Music Degree

Prequisites to the major consists of: Music Theory 110, 120, 130, 140 and Applied Study at the 100 level. Courses applying to the major consists of: Music Theory 210, 220, Music History 200, 210, 220, Applied Study 200 and above, and Music Ensemble, and one course from: Music History 460, Music General 301, Music Theory 493 or Music General 511. 3-6 hours of Music electives. Social classes and prerequisites for a total of 39-44 hours.

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

B.M. CURRICULUM IN SACRED MUSIC (ORGAN OR PIANO)

Freshman

Hours Credit

English Composition
Music Theory 110, 120
Music Theory 130, 140
Music History 200
Music Performance 190
Music Ensemble
Foreign Language
Music General 200

Sophomore

Hours Credit

Religious Studies, Non-U.S. History or Social Science
Music Theory 210, 220
Music Theory 230, 240
Music History 210, 220
Music Performance 290
Music Ensemble
Music Voice 110-120 or Music Performance 155
Music Education 330
Music General 200

Juniors

Music History Elective
Music History 310
Music Keyboard 230-240
Music History 480, 490
Music Performance 390
Music Education 310-320
Music Ensemble
Music General 200

Seniors

General Education
Music Keyboard 310, 320
Music Keyboard 460-470

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

Applied music fees are not refundable after classes have begun.

BACHELOR OF ARTS DEGREE

The Department 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 arts program.

BACHELOR OF ARTS MAJOR IN MUSIC

Degree Prerequisites to the major consists of: Music Theory 110, 120, 130, 140 and Applied Study at the 100 level. Courses applying to the major consists of: Music Theory 210, 220, Music History 200, 210, 220, Applied Study 200 and above, and Music Ensemble, and one course from: Music History 460, Music General 301, Music Theory 493 or Music General 511. 3-6 hours ofMusic electives. Social class and prerequisites for a total of 39-44 hours.

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

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<th>Hours Credit</th>
<th>B.M. Curriculum in Sacred Music (Voice)</th>
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<tbody>
<tr>
<td><strong>Freshman</strong></td>
<td><strong>English Composition</strong> 6</td>
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<td></td>
<td><strong>Music Theory 110, 120</strong> 6</td>
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</tr>
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<td></td>
<td><strong>Social Science</strong> 6</td>
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<td></td>
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<td><strong>Music History 210, 220</strong> 6</td>
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<td><strong>Music Performance 255</strong> 6</td>
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<td><strong>Music Ensemble</strong> 2</td>
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<td><strong>Music Ensemble</strong> 2</td>
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<td></td>
<td><strong>Music Theory 290, 300</strong> 6</td>
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<td></td>
<td><strong>Elective</strong> 3</td>
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1. Humanities-Arts (Non-music), Literature, Philosophical Perspectives or Interdisciplinary Studies.

# B.M. Curriculum in Electronic Music

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<tr>
<th>Hours Credit</th>
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<td><strong>Music Ensemble</strong> 2</td>
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<td><strong>Music History or Theory (300 level or above)</strong> 3,3</td>
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</table>

1. Humanities-Arts (Non-music), Literature, Philosophical Perspectives or Interdisciplinary Studies.

# B.M. Curriculum in Multiple Woodwind Instruments

<table>
<thead>
<tr>
<th>Hours Credit</th>
<th>B.M. Curriculum in Multiple Woodwind Instruments</th>
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<tbody>
<tr>
<td><strong>Freshman</strong></td>
<td><strong>English Composition</strong> 6</td>
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<tr>
<td></td>
<td><strong>Music Theory 110, 120</strong> 6</td>
</tr>
<tr>
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<tr>
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<tr>
<td><strong>Sophomore</strong></td>
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<td><strong>Applied Music</strong> 6</td>
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<td><strong>Music Theory 250</strong> 2</td>
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1. Humanities-Arts (Non-music), Literature, Philosophical Perspectives or Interdisciplinary Studies.
### B.M. Curriculum in Music History and Literature

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<tr>
<td>Sophomore</td>
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1. Humanities-Arts (Non-music), Literature, Philosophical Perspectives or Interdisciplinary Studies.

### B.M. Curriculum in Organ

<table>
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<th>Year</th>
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<th>Credit</th>
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<tr>
<td>Sophomore</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Junior</td>
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1. Humanities-Arts (Non-music), Literature, Philosophical Perspectives or Interdisciplinary Studies.

### B.M. Curriculum in Music Theory

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<td>Sophomore</td>
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1. Humanities-Arts (Non-music), Literature, Philosophical Perspectives or Interdisciplinary Studies.

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

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<th>Credit</th>
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<tbody>
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<tr>
<td>Sophomore</td>
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<tr>
<td>Junior</td>
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1. Humanities-Arts (Non-music), Literature, Philosophical Perspectives or Interdisciplinary Studies.
### B.M. Curriculum in Piano Pedagogy and Literature

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<td>Foreign Language</td>
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</tr>
<tr>
<td>Music General 200</td>
<td>0,0</td>
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<tr>
<td><strong>Sophomore</strong></td>
<td></td>
</tr>
<tr>
<td>Music Theory 210, 220</td>
<td>6</td>
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<tr>
<td>Music Theory 230, 240</td>
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<td>Music Performance 280</td>
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<tr>
<td>Mathematics, Natural Science</td>
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<tr>
<td>Music General 200</td>
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<td>Music Electives</td>
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<td>Music General 401</td>
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Total: 130 hours

### B.M. Curriculum in Strings

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<tr>
<td>Music Theory 130, 140</td>
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<tr>
<td>Music History 200</td>
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<tr>
<td>Applied Music Principal (100 level)</td>
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<tr>
<td>Music Ensemble 110, 120</td>
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<td>Music Ensemble</td>
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<td>0,0</td>
</tr>
<tr>
<td>Mathematics, Natural Science</td>
<td>3</td>
</tr>
<tr>
<td><strong>Sophomore</strong></td>
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</tr>
<tr>
<td>Music Theory 210, 220</td>
<td>6</td>
</tr>
<tr>
<td>Music Theory 230, 240</td>
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</tr>
<tr>
<td>Music History 210, 220</td>
<td>2</td>
</tr>
<tr>
<td>Music Keyboard 210, 220</td>
<td>2</td>
</tr>
<tr>
<td>Applied Music Principal (200 level)</td>
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<tr>
<td>Music Ensemble</td>
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<td>6</td>
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<tr>
<td>Music General 200</td>
<td>0,0</td>
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<tr>
<td><strong>Junior</strong></td>
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<tr>
<td>Music Theory 310, 320</td>
<td>6</td>
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<tr>
<td>Music History Elective</td>
<td>3</td>
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<td>Applied Music Principal (300 level)</td>
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<tr>
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<td>Non-U. S. History, Social Science</td>
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<td>Mathematics, Natural Science</td>
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<td>Music Electives</td>
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<td><strong>Senior</strong></td>
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<tr>
<td>Music General 401</td>
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Total: 127 hours

### B.M. Curriculum in Voice

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<td>English Composition</td>
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<tr>
<td>Music Theory 110, 120</td>
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<td>Music Theory 130, 140</td>
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</tr>
<tr>
<td>Music General 200</td>
<td>0,0</td>
</tr>
<tr>
<td><strong>Sophomore</strong></td>
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</tr>
<tr>
<td>Music Theory 210, 220</td>
<td>6</td>
</tr>
<tr>
<td>Music Theory 230, 240</td>
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<td>Music Voice 240, 250</td>
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<td>Music Performance 255</td>
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Total: 124-128 hours

### B.M. Curriculum in Percussion Instruments

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<td>English Composition</td>
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<td>Music Theory 110, 120</td>
<td>6</td>
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<tr>
<td>Music Theory 130, 140</td>
<td>6</td>
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<tr>
<td>Music History 200</td>
<td>3</td>
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<tr>
<td>Applied Music Principal (100 level)</td>
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<tr>
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<td>Mathematics, Natural Science</td>
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<td>Music Electives</td>
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Total: 130 hours

Must take 1 year of 2 languages chosen from French, German or Italian.

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

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<td>English Composition</td>
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<td>Music Theory 130, 140</td>
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<td>Music History 210, 220</td>
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<td>Music Ensemble</td>
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<td>Non-U. S. History, Social Science</td>
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<td>Foreign Language</td>
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<td>Music General 401</td>
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</tbody>
</table>

Total: 124-128 hours

Humanities-Arts (non-music), Literature, Philosophical Perspectives, Interdisciplinary Studies.

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**1990-91 Undergraduate Catalog** 111

**Organizational Psychology Program**

See Graduate School.
PHILOSOPHY

Professors: G.G. Brencert (Head), Ph.D. Michigan; R.E. Aquila, Ph.D. Northwestern; L.B. Cepek, Ph.D. Nebraska; J.W. Davis, Ph.D. Emory; R.B. Edwards, P.D. Emory; G.C. Graber, Ph.D. Michigan; B.C. Postow, Ph.D. Yale; D. Van de Vate, Ph.D. Yale.


Assistant Professors: H.F. Hamlin, Ph.D. Georgia.

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.

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

PHYSICS AND ASTRONOMY

Professors: W.M. Bugg (Head), Ph.D. Tennessee; C.R. Bingham, Ph.D. Tennessee; W.E. Blass, Ph.D. Michigan State; M.A. Brazeale (on leave), Ph.D. Michigan State; J. Burgdorfer, Ph.D. Freis Universität Berlin; T.A. Callcott, Ph.D. Purdue; R.W. Childers, Ph.D. Vanderbilt; L.G. Christophorou, Ph.D. Manchester (England); F.E. Close (Distinguished Scientist, Science Alliance Center of Excellence, On leave), Ph.D. Oxford (England); G.T. Condo, Ph.D. Illinois; W.E. Deeds (Emeritus), Ph.D. Ohio State; K.E. Duckett, Ph.D. Tennessee; K. Fox, Ph.D. Michigan; N.M. Gillar (Emeritus), Ph.D. Ohio State; S. Georghiou, Ph.D. Oxford (England); M.W. Guidry, Ph.D. Tennessee; E.G. Harris (Alumni Distinguished Service Professor, Ph.D. Tennessee; E.L. Hart, Ph.D. Cornell; H.C. Jacobs, Ph.D. Yale; D.T. King (Emeritus), Ph.D. Bristol (England); R.J. Lovell, Ph.D. Vanderbilt; G.D. Mahan (Distinguished Scientist, Science Alliance Center of Excellence), Ph.D. Pennsylvania.

Lecturers: S.J. Daunt, Ph.D. Queens (Kingston, Ontario, Canada); R. DeSera, Ph.D. Chicago; R. Harmatz, Ph.D. Ohio State; A.J. Sanders, Ph.D. Tufts.

PHYSICS

B.S. Major: The undergraduate physics major provides a thorough introduction to all of the core disciplines of physics so that students are prepared to pursue related specialties at a later point in their career. Students with special interests are encouraged to pursue those interests through research projects and/or independent study under the direction of members of the physics faculty through Physics 493.

Prerequisites to the major are: Physics 131-132 or 137-138; Mathematics 141-142.

The major consists of: Physics 231-232 or 237-238; Mathematics 231 and 241; Physics 311 (students intending to pursue graduate studies in Physics should also take 312 and 421 as electives); Physics 321, Physics 431-432, Physics 411-412 (340 and 341 or 342 may be substituted for students who do not intend to pursue graduate study); 361-362 or 461-462-463. Physics 401-402 are recommended. Total major hours: 42-43.

Minor: A minor in physics shall consist of Physics 231-232 or 237-238 and 10 hours from physics and astronomy courses numbered 300 and above. Substitution provisions in the major statement also apply to the minor.

POLITICAL SCIENCE


Associate Professors: R.B. Cunningham, Ph.D. Indiana; J.W. Dodd, Ph.D. Tulane; G.C. Evans, Ph.D. Columbia; W. Fleming, Ph.D. Harvard; P.K. Freeman, Ph.D. Wisconsin; M.M. Gant (Head), Ph.D. Michigan; R.L. Peterson, Ph.D. Yale; J.M. Scheb, Ph.D. Florida; T.M.C. Simpson, Ill, Ph.D. Johns Hopkins.


B.A. Major: Political Science 101 or 107 and 102 are prerequisites to the major which consists of 24 hours of courses numbered 300 and above. These 24 hours must include at least one course in each of the four areas of the discipline:

United States Government and Politics/

Comparative Government and Politics:
311, 350, 355, 361, 452, 454, 459, 460, 461, 463, 466 and 464.

International Relations:
365, 366, 370, 455, 469 and 470.

Political Theory:
301, 475 and 476.

Majors must earn a "C" or better in prerequisite courses.

Minor: Prerequisites to the minor are Political Science 101 or 107 and 102. The minor 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 normally is a two year program. Political Science 101 or 107 and 102 are prerequisites to the major which consists of thirty-six hours, Political Science 301, 387-388, 487-488, and 21 additional hours numbered 300 and above. These 21 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; International Relations; and Political Theory.

To graduate with Honors in Political Science, the student must have a minimum GPA of 3.3 in Political Science, and a minimum cumulative GPA of 3.0.

Major in Political Science with a Concentration in Public Administration: Students majoring in Political Science who wish to prepare for a career in the public service may select to follow the concentration in Political Science. Political Science 101 or 107 and 122 and Economics 201 and 202 are prerequisites to the major in Political Science with a concentration in Public Administration. Corequisite courses are Mathematics 121 and 122 and Accounting 201 and 202. Majors earn an "A" or better in prerequisite and corequisite courses. The concentration consists of 24 hours of upper division course work in Political Science and 12 hours of upper division course work in Economics. In Political Science, students must include one course in each of the four fields of Political Science: American Government and Politics/Public Administration, Comparative Government and Politics, International
Further details on the major and on department courses are available in the department office, located in 501 McClung Tower, or from any member of the religious studies faculty.

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

ROMANCE LANGUAGES

Professors:

J. B. Romaine (Head), Ph.D. Vanderbilt; P. E. Barrett, Ph.D. California (Berkeley); P. Brady, Ph.D. Universite de Paris (Sorbonne); O. Cazenave. Ph.D. Penn State; C. W. Cobb, Ph.D. Tulane, J. C. Elliott, M. A. Illinois; M. H. Handelman, Ph.D. Florida; W. H. Holfin, Jr., Ph.D. Florida State; T. B. Irving (Emeritus), Ph.D. Princeton; F. D. Maurino (Emeritus), Ph.D. Columbia; C. R. Minsky (Emeritus), Ph.D. California (Berkeley); M. Petrovskaja, Ph.D. Kentucky; Oscar Rivera-Rodas, Ph.D. California; A. M. Yazquez-Bigi (Emeritus), Ph.D. Minnesota; A. H. Wallace, Ph.D. North Carolina; Y. M. Washburn, Ph.D. North Carolina.

Associate Professors:

E. J. Campion, Ph.D. Yale; R. M. E. De Rycke, Ph.D. Illinois; S. DiMaria, Ph.D. Wisconsin; D. M. DiPuccio, Ph.D. Kansas; C. K. Duncan, Ph.D. Illinois; K. D. Levy, Ph.D. Kentucky.

Assistant Professors:

F. Brizio, Ph.D. Washington; O. Cazenave, Ph.D. Penn State; Charlotte G. Cox (Emeritus), M. A. Tennessee; C. Holmunt, Ph.D. Virginia; E. Johnson, Ph.D. Tennessee; Margo Milleret, Ph.D. Texas (Austin); A. Rodriguez, Ph.D. Brown; Paula Wilson (Emeritus), M.A. Tufts; Dolly Young, Ph.D. Texas.

Instructors:

A. McKeebay, M.A. Tulane; M. T. Rabot, Cert. de Lic. Poitiers.

French Major: Consists of 31 hours in courses numbered 311 and above. All majors must have the following courses (or their equivalent with consent of the department):

311-312, 313, 341 or 342, 345, 421, 422, 440.

Literature concentration students must also have 6 hours of literature at the 400 level, 3 hours of which must be either 410, 411, 412, 413, 414, or 415. 3 hours of language oriented or civilization courses at the 300 or 400 levels.

Language concentration students must also have 9 hours of language-oriented or civilization courses at the 300 or 400 levels.

French Minor: The minor consists of 18 hours in courses numbered 311 and above distributed accordingly: 311-312, 313, 341 or 342, 421, 422, plus 3 hours of electives at the 300 or 400 levels.

Italian Major: Consists of 27 hours in courses numbered 311 and above. All majors must take 311, 312, 341, 342, and 401.

Italian Minor: Consists of 18 hours in courses numbered 311 and above. Students pursuing a minor must consult with a departmental advisor.
Portuguese Minor: Consists of 18 hours in courses numbered 300 or above. Students pursuing a minor must consult with a departmental advisor.

Spanish Major: Consists of 30 hours in courses numbered 311 or above. This includes (a) 9 hours of 400-level literature courses; (b) 9 hours of 400, 422, 432, 440, and 3 hours of 491 or 493. Students must also take 459 and 460.

Spanish Minor: Consists of 18 hours in courses numbered 311 or above, including 311 and 412; 422; one course in conversation and composition from among the following: 323, 324, 423, 424, and the remaining courses to be chosen among literature, civilization, civilization, phonetics, or literature. Students pursuing a minor are strongly advised to consult with a departmental advisor.

Courses with equivalent courses in other languages may be substituted with the consent of the department. Courses in Spanish language literature in English translation, however, may not be counted toward either a major or minor.

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

(a) Language Major: (1) French major consists of 32 hours. The following are required: French 199, 311-12, 313, 341, 345, 435, 440, 491, 493, 495, 496; and 3 hours of 491 or 493.

(2) Spanish major consists of 32 hours. The following are required: Spanish 199, 311-12, 323, 345, 422, 423, 431 or 471, 459-60, 3 hours of 491 and any 400-level literature course.

(b) Professional Emphasis: (1) International Business students will take 25 hours. The following are required: Accounting 201, Economics 201 or 207 and 321, Business Administration 311 and 495, Management 471, Logistics and Transportation 441, and an elective from a related business area chosen in consultation with an advisor. (2) International Logistics and Transportation students will take 25 hours. The following are required: Accounting 201, Economics 201 or 207, Business Administration 311 and 495, Management 471, and Logistics and Transportation 301, 392, and 441.

(c) Practical experience: Through French 491 or 493, or Spanish 491, each LWB student must undertake study abroad, an internship, or a relevant research project for a minimum of 3 hours (included in upper-division requirements).

Additionally, LWB students must consult an advisor in the Department of Romance Languages for help in selecting relevant courses under the Basic Skills and Distribution requirements of the College.

For further information, inquire in 601 McClung Tower.

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

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

Study Abroad: Four summer study abroad opportunities are available to students through the Department of Romance Languages. The department sponsors programs in Brazil (Fortaleza), France (Lille), Italy (Urbino), and Spain (Madrid). 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). Classes in literature, culture, and language are also available at the third- and fourth-year levels, so that students can earn credit toward minors and majors. Participation in these programs will also satisfy the foreign study requirements for the Language and World Business concentration.

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 program. For more information concerning prerequisites, lodging arrangements, costs, and dates of an individual program, contact the Department of Romance Languages, 601 McClung Tower, Telephone #784-2311.

RUSSIAN

See Germanic and Slavic Languages.

RUSSIAN AND EAST EUROPEAN STUDIES

See Interdisciplinary Programs.

SOCIOLoGY

Professors: T.C. Hood (Head), Ph.D. Duke; Michael L. Benson, Ph.D. Illinois; D.M. Betz, Ph.D. Michigan State; J.A. Black, Ph.D. Iowa; D.J. Champion, Ph.D. Purdue; D. Cleland, Ph.D. Michigan State; D.W. Hastings, Ph.D. Massachusetts; D.R. Ploch, Ph.D. North Carolina; N.E. Shover, Ph.D. Illinois (Urbana); S.E. Wallace, Ph.D. Minnesota.

Associate Professors: S. Kurth, Ph.D. Illinois (Chicago); R.G. Perrin, Ph.D. British Columbia.

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

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

Concentration in Criminal Justice: All prerequisites and upper-division courses required for general majors are required for this concentration. In addition, the concentration consists of 18 hours of upper-division sociology as follows: 350, 351, 451, 459, 492 (3), and one course selected in consultation with advisor.

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

COLLEGE SCHOLARS HONORS

Director: Dr. Harry C. Jacobson

College Scholars is a major with selective admission. For details contact the director. All Scholars must enroll in one of the College Scholars Seminars 317-318 each term. They are encouraged to complete work in College Scholars Honors 491-492-493. Each student must complete a substantial piece of research, scholarship or creative imagination. College Scholars 498 is the appropriate course to use to receive credit for this work.

SPANISH

See Romance Languages.

SPEECH COMMUNICATION


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

Assistant Professors: R.S. Ambler, Ph.D. Ohio State; J.W. Haas, Ph.D. Kentucky.

Major: Speech Communication 100 is prerequisite to a major which consists of Speech Communication 270, 300, 310, 330, either 350 or 460, and 12 additional hours in Speech Communication courses, of which 9 hours must be in courses numbered 300 and above. No more than 5 hours from Speech Communication 200, 271-272, 371-372, 491, 492, and 493 may be counted toward the major. Students interested in broad applications (e.g., teacher certification or religious
Statistics

See faculty list in the College of Business Administration.

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

Major: (a) Required courses consist of 25 hours from Mathematics 241, 251; Statistics 251, 252, 261. Statistics 461, 462, Statistics 471 or Mathematics 323; (b) Statistics elective consists of 3 hours from upper-division statistics courses not listed in part (a); and (c) Electives consist of 6 hours to be selected from two of the following groups: Computer Science 111, 112, 401, 402, 403, 404; Industrial Engineering 301, 402, 406; Management 481; Mathematics 371, 421, 423, 425, 453 (other quantitative courses may be substituted as Electives with the faculty advisor’s approval).

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

Theatre

Professors:

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

Assistant Professors:

W.R. Black, M.F.A. Illinios; P. Schmitt, Ph.D. Wisconsin; J.L. Decuir, M.F.A. Tulane.

Major: Theatre 100 and 220 are prerequisites to a concentration which consists of (1) Theatre 210, 211, 245, 250, 260, 310, 311, 430; (2) three chosen from the following 481, 482, 483, 484, 485; (3) 5 additional hours of Theatre courses numbered 200 or above, 4 of which may be in cognate areas approved by the department; (4) at least one half of the hours in the major must be at the 300 level or above.

Minor: Theatre 100 and 220 are prerequisites to a minor which consists of (430 and 15 additional hours of Theatre courses numbered 300 or above, 6 of which must be in history and criticism. General requirements for the master’s degree are given in the Graduate Catalog.

Women’s Studies

See Interdisciplinary Programs.

Zoology

Professors:

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

Associate Professors:

K.D. Burnham (Emeritus), Ph.D. Iowa; T.T. Chen, Ph.D. Florida; D.J. Fox, Ph.D. Johns Hopkins; N.B. Greenberg, Ph.D. Rutgers; M.L. Pan, Ph.D. Pennsylvania.

Assistant Professors:

C.Boake, Ph.D. Cornell; J.L. Gittleman, Ph.D. Sussex (Brighton, England); J. Drake, Ph.D. Purdue; J.C. Hall, Ph.D. Illinois; R. Ganguly, Ph.D. Nebraska.

Research Associate Professors:

T. Ashley, Ph.D. Florida State; R. Tindall, Ph.D. Pennsylvania State.

Prerequisites to upper division courses:

Biology 110-120 or Biology 150 or Zoology 117-118 are prerequisites for all upper division courses (with the exception of 480). Additional prerequisites are included with course descriptions.

Major: Prerequisites to the major are Biology 110-120 or 150 or Zoology 117-118 and Chemistry 120-130. Corequisites are Mathematics 121-122 or 151-142 or 141-142 and a year sequence in physics (except 141-142). Physics 221-222 are recommended and are required for admission to some professional schools.

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

Minor: Prerequisites to the minor are Biology 110-120 or 150 or Zoology 117-118 and Chemistry 120-130 or 100-110. The minor consists of Biology 210-220-230 and 9 hours of upper division Zoology.

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

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