The College of Arts and Sciences is home to a wide array of academic disciplines and interdisciplinary programs. Such diverse areas of study as computer science and classics, anthropology, women's studies and Latin American studies are represented among the 26 departments and schools and 13 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.

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

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

The great universities of the world are so labeled because their faculties have earned the reputation of being renowned scholars. The University of Tennessee, 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 Arts and Sciences has joined a community of scholars. To study with such a talented faculty is to experience the best education possible.

The faculty of the College of Arts and Sciences provide to all students a general education and to thousands of students a year a more specialized education in any one of twenty-six disciplines and thirteen 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 College of Arts and Sciences 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 students for advanced study but do not lead to a degree from this college.

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. Three programs leading to this degree are open to the student.

Basic Program

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

Individualized Program

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

College Scholars Program

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

**Bachelor of Science**

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

**Basic Program**

The basic program for the Bachelor of Science degree contains basic skills and distribution requirements similar to the basic program for the Bachelor of Arts as well as a unique set of requirements for the major including additional study in mathematics, statistics, or laboratory sciences.

**Pre-Professional Program**

The pre-professional program is offered for those who wish to participate in the cooperative 3+1 curricula in the health sciences (medicine, dentistry, pharmacy, veterinary medicine, or nuclear medicine technology). Students taking one of the health sciences curricula proceed directly to specialized training in the chosen area after the third year of Arts and Sciences study and complete the first year of professional study in lieu of satisfying the requirements for the Bachelor of Science degree with a major concentration in the college.

**Bachelor of Science in Chemistry**

See Department of Chemistry.

**Bachelor of Fine Arts**

See School of Art.

**Bachelor of Music**

See School of Music.

**Requirements for Degrees**

To earn a Bachelor of Arts or Bachelor of Science degree, these requirements must be completed.

- All university degree requirements as described in the section, Academic Policies and Procedures – General Requirements for a Bachelor’s Degree.
- A minimum of 120 credit hours.
- At least 42 credit hours in courses numbered 300 or above.
- Appropriate work to satisfy basic skill and distribution requirements, counting no course in more than one area. (This is not a requirement in the College Scholars Program.)
- Completion of at least one major (24-40 credits at 200 level or above for Bachelor of Science majors and 24-37 credits at 200 level or above for Bachelor of Arts majors); up to 6 hours in the major may be used, where listed, to satisfy basic skills or divisional distribution requirements. Courses used for the major may not be used to satisfy upper level distribution requirements.
- Students may choose to develop one or more minors (minimum 15 hours at the 200-level and above).
- Students may take up to 20 hours of courses graded Satisfactory/No Credit in an area outside the major or minor, basic skills or distribution requirements.

**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 neither S nor 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.

- 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. This restriction applies also to major or minor prerequisites or corequisites.
- 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.
- A transfer student with S/NC or equivalent credit earned prior to admission to the University of Tennessee, Knoxville, in a course which satisfies a basic skills or distribution requirement may count it for that purpose. In the case of a course which satisfies a major or minor requirement, statement 1 (above) applies.

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

**Basic Skills and Distribution Requirements**

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**

All students who earn a degree in the College of Arts and Sciences must have demonstrated skill in the use of the English language, the ability to acquire another language, and the ability to use the tools of quantitative analysis or formal logic. The specific requirements are as follows.

**English Composition**

Skills necessary to write persuasive, logical and coherent essays in English; to read critically texts from a variety of media; to evaluate and cite sources in research; and to be aware of how to write for different audiences and purposes. Students may meet this requirement in one of two ways.

- By completing 6 hours in English writing courses – either English 101 and 102; or English 118 and English 102; or English 131 and 132. Students who obtain a grade of A or B in 118 may complete their freshman requirement with 102, or with a sophomore literature course in the English Department, or English 355. The sophomore literature course may, if so listed, also be used toward the humanities distribution requirement.
- By earning a score of 4 or 5 on the College Board Advanced Placement Test in Literature and Composition. Credit in English 101 is earned with a score of 4 or 5 on the Advanced Placement Test in Language and Composition.

**Placement Information**

Eligibility for English 118 will be determined by ACT or SAT scores and a placement exam. Selected students will be placed in English 103 based on ACT or SAT scores and may not drop this course without departmental approval. Details are available from the English Department. A student must complete the English composition requirement prior to enrolling in English courses numbered 200 or higher.
Communicating through Writing

To fulfill the University General Education Requirement, all students must complete the first year composition sequence described above, and, upon completion of English 101 and 102 or their equivalent, take one other course designated as (WC) in the Undergraduate Catalog. The WC course may or may not be within the student's major. WC courses may also satisfy college distribution requirements.

Communicating Orally

The ability to communicate one's ideas orally is as important as the ability to express them in writing. All students must fulfill the University General Education Requirement by completing one course with an (OC) designation. The OC course may or may not be within the student's major. OC courses may also satisfy college distribution requirements.

Foreign Language

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

Students may meet this requirement in one of three ways.

- Completion of the intermediate-level sequence of a foreign language. Any one of the following sequences will satisfy the requirement – Asian Languages 231-232 or 251-252; Asian Studies 221-222, 241-242, or 261-262; French 211-212 or 217-218; German 201-202; Classics (Greek) 261 and 264; Classics (Latin) 251 and 252; Italian 211-212; Portuguese 211-212; Russian 201-202; Spanish 211-212 or 217-218.
- Demonstration of competence on a departmental placement or proficiency examination or by AP or CLEP credit.
- Students whose native language is not English may satisfy the requirement with English 131 and 132 and any two courses from List A: Literature under the Humanities Distribution Requirement.

Placement Information

All students who wish to enroll in a French, German, Latin, or Spanish course, who have completed at least two years of this language in high school, and who have not yet taken a college course in the language must take a placement examination before enrolling. Placement in the appropriate course will be determined by the score on the examination. Examinations will be given during summer orientation and at designated times during the fall, spring, and summer. Students who place into 200-level courses will receive 6 hours of elementary language credit, provided that they do not subsequently enroll and receive credit for any 100-level course in the same language. If they do, elementary placement credit is forfeited and removed from the student's transcript. Students who place into 300-level courses will receive 6 hours of intermediate language credit. Under no circumstances may any student earn more than 6 hours of language placement examination credit. Students who feel they have been inappropriately placed should consult the appropriate language section.

Mathematics and Quantitative Reasoning

Skills in mathematics, quantitative reasoning, and computing required for estimation and calculation, understanding logical processes, critical analysis, problem solving and decision making. Students may meet this requirement by completion of two of the following courses, or one of the following courses and Computer Science 100 or 102.

- Statistics 201, 207.

Distribution Requirements

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

Part A: Divisional Distribution Requirements

Natural Science

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

Students may meet this requirement by completion of a two-course sequence from List A and an additional course from List A or List B.

List A

- Astronomy 161-162, 217-218; Biology 101-102, 111-112; Chemistry 100-110, 120-130, 128-138; Geography 131-132; two from Geology 101, 102, 103; Geology 107-108 (students who earn an A in 101 or a B or better in 107 may take 108); Physics 135-136, 137-138, 221-222.

List B

- Anthropology 110, 304; Astronomy 151; Biochemistry and Cellular and Molecular Biology 230, 306 (same as Anthropology 304); Biology 130, 157; Chemistry 150, 160; Computer Science 140, 160; Ecology and Evolutionary Biology 309, 330, 410; Geology 201, 202, 203, 205; Mathematics 231; Microbiology 210; Physics 101, 102.

Social Science

Courses that will introduce students to the idea of individuals in societies, to perspectives and methods used by social scientists, and to the uses of these perspectives and methods in thinking about current social, economic and political issues and problems.

Bachelor of Arts students may meet this requirement by completion of four courses from at least two departments listed below. To meet the University General Education Requirement, two of the courses selected must be from List A. The other courses can be chosen from List A or List B. Bachelor of Science students must complete two courses from different departments. To meet the university's general education requirement, both courses must be selected from List A.

List A

- Africana Studies 201, 202; Anthropology 130; Economics 201, 207; Geography 101, 102; Political Science 102; Psychology 110, 117; Sociology 110, 117, 120, 127.

List B

- Africana Studies 310; Anthropology 120, 362; Audiology and Speech Pathology 320; Communication Studies 201, 220, 260, 330; Ecological Psychology 210; Geography 320, 340; Global Studies 250; Linguistics 200; Musicology 290, 310; Political Science 101, 107; Psychology 220, 360; Religious Studies 232, 301; Sociology 232, 250, 260, 344, 370; Women's Studies 220.

Humanities

Courses that will provide skills to appreciate and interpret literary, philosophical, or religious texts, and to participate as an appreciative observer or artist in a discipline within the visual, spatial, musical, theatrical, or written arts.
To meet the University General Education Requirement, students must choose two courses identified by an asterisk (*) from the list of courses below.

Bachelor of Arts students must complete three courses. At least two of the three courses must be chosen from those indicated by asterisks (*). In addition, one course must be selected from List A, one from List B, and one from List A, B, or C. Bachelor of Science students must complete two courses. Both courses must be chosen from those indicated by asterisks (*). One course must be selected from List A or B.

Writing-emphasis courses require at least 2,000 words, normally comprising one sustained essay or report of at least 1,000 words plus additional writing assignments such as in-class essay exams, journals, book reviews, etc. The purpose of the requirement is to help students learn course materials through writing; develop critical thinking skills; demonstrate the ability to sustain an argument; and strengthen existing writing skills.

List A – Literature


List B – Philosophical and Religious Thought


List C – Study or Practice of the Arts


Non-U.S. History

A two-course sequence to enhance appreciation of the diversity of the world’s societies, their cultures, and histories. This requirement will develop understanding of how the past shapes individuals and communities in practical decisions and in understanding of self and world; will contribute to skills in explaining change and continuity of human society and the interpretation of people, events and trends in context of the ideas, values, social and political conditions that affect them.

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


Part B: Upper Level Distribution Requirements

Courses that use skills and knowledge acquired in the basic skills and divisional distribution areas to understand and analyze a highly interdependent world system and to make informed comparisons among contemporary cultures. These courses develop understanding of United States society, of national and international diversity, and of critical issues of the modern world.

Bachelor of Arts students may meet this requirement by completion of two courses from one list and one course from the other list. Bachelor of Science students must complete one course from each list. All courses are writing-emphasis courses.

List A – United States Studies

African Studies 315, 331, 333, 343, 352, 429, 445, 446, 480, 484; American Studies 310, 312, 334, 343, 355, 423, 469; Anthropology 305, 310, 312, 315, 320, 321, 360, 363; Art History 471, 472, 473, 483; Cinema Studies 312, 334, 469; Communication Studies 450, 466, 469, 476; Ecology and Evolutionary Biology 305; Economics 331, 333, 361, 362, 371, 413, 435, 472; English 331, 332, 333, 334; Geography 361, 363, 366, 423, 441, 443; Geology 381; History 350, 351, 445, 446, 451, 453; Legal Studies 330, 340, 455, 469; Philosophy 390; Political Science 311, 312, 330, 374; Psychology 434; Religious Studies 351, 352, 355; Sociology 310, 340, 434, 455; Women’s Studies 310, 332, 340, 434, 453, 466, 469, 476, 484.

List B – Foreign Studies

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

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

Africa

African Studies 371, 372, 373, 379, 381, 421, 452, 461, 462, 463; Anthropology 373; Art History 461, 462, 463; Geography 379; History 371, 372, 381; Political Science 452; Religious Studies 373.

Asia

Art History 411, 415, 416, 419, 462; Asian Languages 315, 413; Cinema Studies 315; History 389, 390, 391, 392; Japanese 413; Philosophy 374, 376, 379; Political Science 454; Religious Studies 374, 376, 379, 383, 474.

Europe

Anthropology 436, 462; Art History 425, 431, 441, 442, 451, 452, 453, 454, 475, 476; Cinema Studies 323, 325, 420, 421; Classics 381, 382, 383, 436; English 301, 302, 321, 401, 422; French 420, 431, 432; Geography 371; German 323, 350, 363; History 319, 320, 323, 429, 432, 490; Italian 414, 421; Judaic Studies 322, 350, 425, 431; Linguistics 321; Medieval Studies 322, 403, 405, 431, 441, 445, 451; Philosophy 320, 322, 324, 326; Political Science 361, 459; Russian 325, 371, 372; Women’s Studies 383, 422, 432.

Latin America


Middle East


Critical Issues in Foreign Studies

African Studies 442; Cinema Studies 482, Economics 322; Geography 345, 351; Global Studies 482; History 374, 375, 395, 484; Judaic Studies 395, 484; Mathematics 400; Modern Foreign Languages and Literatures 482; Political Science 350, 365; Sociology 360, 442, 446, 465; Women’s Studies 360.

 Majors

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. Courses taken to sat-
isfy the university’s OC and WC requirements may, when appro-
perate, be used in the major. An additional 6 credits taken in the
major may also be used to satisfy basic skills or divisional distri-
bution requirements. A minimum grade of C must be earned in
every course counted as part of the major. This grade require-
dment does not apply to prerequisites and corequisites unless the
department has specific progression requirements.

Students transferring from other institutions must complete at
least 9 credit hours at the University of Tennessee, Knoxville, in
each major awarded on this campus. Students may elect as
many courses as desired in any department or program. In lieu of a
major, students may develop an individualized program (described below). Majors available in the basic program for a
Bachelor of Arts or Bachelor of Science include: anthropology, art, art history, audiology, biological sciences, chemistry, classics, computer science, economics, English, French, geography, geol-
ogy, German, history, interdisciplinary programs, Italian, mathe-
matics, music, philosophy, physics, political science, psychology, religious studies, Russian, sociology, Spanish, speech pathology, statistics, and theatre.

Optional Multiple Majors
After the general requirements of basic skills, distribution and a
major have been satisfied, additional majors may be recorded
on the transcript without regard to course overlap among majors
or among the additional majors and basic skills and distribution
requirements. Students developing multiple majors must declare
this intent at the time of application for graduation. Once a stu-
dent has graduated, the establishment of additional majors
becomes subject to university second degree requirements.

Students who satisfy the requirements of a degree in a col-
lege other than Arts and Sciences may also major inside the Col-
lege of Arts and Sciences with the approval of the degree-grant-
ing unit. These students need complete only the major require-
ments, not the basic skills or distribution requirements for Arts
and Sciences degrees. The arts and sciences major may also be
listed on the student’s transcript.

Minors
At the time of application for graduation, single or multiple
minors may be recorded on the academic record without regard to
course overlap among minors and major or among minors and
basic skills and distribution requirements. Students who satisfy the
requirements of a degree in a college other than Arts and Sciences
may also minor inside the College of Arts and Sciences with the approval of the degree-granting unit. The minimum requirement for
a minor is 15 credit hours in courses numbered 200 or above.
Minors are available in most departments or programs in which
majors are offered and also in astronomy, Portuguese, Chinese, Japanese, and cinema studies. Minors may be developed in other
colleges or schools of the university, but must be approved by the
head of the department in which the minor is proposed. At least 6
of the 15 credit hours required for a minor must be completed at
the University of Tennessee, Knoxville.

Business Administration Minor for Non-Business Students
For details, see the College of Business Administration sec-
ton of this catalog and contact the Undergraduate Programs
Office (College of Business Administration), 112 Aconda Court.

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 at the university rep-
resents that freedom within which total education may be round-
ed 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 select-
ing the elective courses are additional courses in the major field;
a related minor; an area in the arts; an off-campus semester.

Only the student’s imagination and initiative and the willing-
ness to conceive and develop a meaningful academic program
limit the choices of supplementary elective courses.

Program for Prospective K-12 Teachers
Student planning careers in K-12 teaching must complete an
Arts and Sciences major in a department, in one of the interdis-
ciplinary programs, or, if eligible, in the College Scholars Pro-
gram. Prospective secondary teachers must fulfill the require-
ments of appropriate content majors; prospective elementary
teachers may choose any major in the College of Arts and Sci-
ences.

To be licensed for teaching, students must also gain formal
admission to the Teacher Education Program in the College of
Education, Health, and Human Sciences. The process involves
successful completion of a series of requirements including pres-
entation of satisfactory scores on certain tests, completing pro-
fessional courses in the College of Education, Health, and
Human Sciences, maintenance of a 2.7 or higher GPA, and com-
pleting a fifth year program emphasizing practical application.
For details, see the College of Education, Health, and Human
Sciences section of this catalog and contact the Advising Center,
Claxton Complex 332.

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

The College Scholars Program affords the highest degree of
freedom to the student in developing a meaningful curriculum.
Each program is worked out individually with a special advisor
(mentor) who under ordinary circumstances continues to advise
the student throughout the college career. Together they deter-
mine what kinds of course work and/or other learning experi-
ences 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 pro-
gram, students will be heavily involved in independent study or
research required of all college scholars. When college scholars
fulfill departmental requirements for additional majors or minors,
these will be recorded on the scholars’ transcripts. Scholars will
not be required to meet Basic Skills or Distribution requirements
in order to have such majors or minors officially recognized, but
will be required to meet the University General Education
Requirement.

Further information and applications may be obtained from
Arts and Sciences Advising Services.

INDIVIDUALIZED PROGRAM
Existing Arts and Sciences majors will satisfy the needs of
most students entering the university. Some, however, come
with particular strengths in their preparation or with special
interests which do not coincide with traditional departmental or
interdepartmental majors. For these students, the individual-
ized program has been established as a means of attaining a
closer correlation between student needs and academic pro-
grams.

Students in the individualized program will satisfy all the basic
skills and distribution requirements. Individualization takes place
in the area of concentration. The quantitative aspect of the area
of concentration is the same as for most majors in the basic program (i.e., a minimum of 24 hours in courses numbered above 200), and at least two-thirds of the courses must be selected from disciplines within the College of Arts and Sciences. The student may design a program in consultation with an advisor and submit it for consideration to the Committee on the Individualized Program. The proposed courses of study must have some clear central purpose, usually implemented through intensive work in two or three departments; an undirected scattering of courses will not be approved. Students must submit their proposals for review by the committee prior to the completion of 75 hours of coursework. For further information contact Arts and Sciences Advising Services.

MEDICAL TECHNOLOGY MAJOR

Students who complete the medical technology curriculum receive the Bachelor of Science degree with a major in medical technology from the College of Arts and Sciences. The curriculum requires a minimum of 90 hours of credit which includes the Basic Skills and Distribution requirements of the college and the University General Education Requirement prior to application for admission to a final year of study at the University of Tennessee Medical Center, Knoxville (UTMCK). After the course of study is completed, UTMCK awards the student a Certificate of Laboratory Training. Students are then eligible for examination by the Board of Registry of the American Society of Clinical Pathologists to earn certification as registered medical technologists. Admission to the clinical year is at the discretion of the admissions committee of the medical technology program at the UT Medical Center. Admission to and successful completion of the program below does not assure admission to the clinical phase of the medical technology program.

**Requirements for the Bachelor of Science • Medical Technology Major**

<table>
<thead>
<tr>
<th>First Year</th>
<th>Hours</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>English 101*-102*</td>
<td>6</td>
<td>4</td>
</tr>
<tr>
<td>1st Biology 130</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>Biology 140</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>Chemistry 120*-130</td>
<td>8</td>
<td>4</td>
</tr>
<tr>
<td>2nd Foreign Language – Intermediate Level*</td>
<td>6</td>
<td>3</td>
</tr>
<tr>
<td>3rd Mathematics*</td>
<td>6</td>
<td>3</td>
</tr>
<tr>
<td>Communicating Orally (OC) course*</td>
<td>3</td>
<td>3</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Second Year</th>
<th></th>
<th></th>
</tr>
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<tbody>
<tr>
<td>4th Chemistry 110</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>Biochemistry and Cellular and Molecular Biology 230</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>Biology 240</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>Microbiology 310-319</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>Humanities* (one course from List A or B)</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>Non-U.S History*</td>
<td>6</td>
<td>6</td>
</tr>
<tr>
<td>Communicating through Writing (WC) course*</td>
<td>3</td>
<td>3</td>
</tr>
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<table>
<thead>
<tr>
<th>Third Year</th>
<th></th>
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<tbody>
<tr>
<td>Chemistry 310-319</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>Biochemistry and Cellular and Molecular Biology 310</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>Microbiology 420-429</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>Microbiology 430</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>5th Social Sciences*</td>
<td>6</td>
<td>6</td>
</tr>
<tr>
<td>Humanities* (one course from List A, B, or C)</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>Upper-Level Distribution (one course from List A and one course from List B)</td>
<td>6</td>
<td>6</td>
</tr>
<tr>
<td>6th Elective</td>
<td>0-3</td>
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<table>
<thead>
<tr>
<th>Fourth Year</th>
<th></th>
<th></th>
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</thead>
<tbody>
<tr>
<td>Medical Technology course of study at UT Medical Center in Knoxville (12-month program)</td>
<td>36</td>
<td>36</td>
</tr>
</tbody>
</table>

* Meets University General Education Requirement.

1 Students who have previously completed Biology 101 and 102 for their lab science requirement may substitute these two courses for Biology 130.

2 This plan assumes a student has had enough language background in high school to begin the intermediate language sequence at UTK.

3 Math 115-125, Math 123-125, Math 151-152, or Math 141-142 are required for pre-medical technology students. Math placement depends on high school courses and grades, ACT scores, and BA/BS requirements.

4 Students who have completed Chemistry 350-360, 369 may substitute it for Biochemistry 310 and Chemistry 110.

5 BS students must complete a minimum of 2 courses from the University General Education Requirement in Social Sciences. The courses must be from two departments.

6 Classics 273 Medical and Scientific Terminology is a highly recommended elective. One year of U.S. history must have been completed in high school or college prior to graduation from the medical technology program.

**PRE-PROFESSIONAL PROGRAMS MAJOR**

**NUCLEAR MEDICINE TECHNOLOGY CONCENTRATION**

The nuclear medicine technology curriculum requires a minimum of 90 hours credit, including the college’s Basic Skills and Distribution requirements and the University General Education Requirement, prior to application for admission to a final year of study at the University of Tennessee Medical Center, Knoxville. Students who complete the nuclear medicine technology program at UTMCK receive the Bachelor of Science degree with a major in pre-professional programs with a concentration in nuclear medicine technology from the College of Arts and Sciences.

Admission to the nuclear medicine technology program at UTMCK is at the discretion of the admissions committee of that department; successful completion of the three-year curriculum noted below does not assure admission to the program.

**Requirements for the Bachelor of Science • Pre-Professional Programs Major • Nuclear Medicine Technology Concentration**

<table>
<thead>
<tr>
<th>First Year</th>
<th>Hours</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>English 101*-102*; or equivalent</td>
<td>6</td>
<td>6</td>
</tr>
<tr>
<td>Chemistry 120*-130*</td>
<td>8</td>
<td>8</td>
</tr>
<tr>
<td>1st Mathematics*</td>
<td>6-8</td>
<td>6-8</td>
</tr>
<tr>
<td>2nd Biology 130</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>Biology 140</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>Communication Studies 210*</td>
<td>3</td>
<td>3</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Second Year</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Chemistry 350-360, 369</td>
<td>8</td>
<td>8</td>
</tr>
<tr>
<td>3rd Foreign Language - Intermediate Level*</td>
<td>6</td>
<td>6</td>
</tr>
<tr>
<td>4th U.S. History*</td>
<td>6</td>
<td>6</td>
</tr>
<tr>
<td>Humanities* (one course from List A or B)</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>5th Social Sciences*</td>
<td>6</td>
<td>6</td>
</tr>
<tr>
<td>Computer Science 100 or 102</td>
<td>3-4</td>
<td>3-4</td>
</tr>
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</table>

<table>
<thead>
<tr>
<th>Third Year</th>
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</tr>
</thead>
<tbody>
<tr>
<td>Biochemistry and Cellular and Molecular Biology 230</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>Ecology and Evolutionary Biology 240</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>Physics 221-222</td>
<td>8</td>
<td>8</td>
</tr>
<tr>
<td>Humanities* (one course from List A, B, or C)</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>Upper-Level Distribution (one course from List A and one course from List B)</td>
<td>6</td>
<td>6</td>
</tr>
<tr>
<td>Communicating through Writing (WC) course*</td>
<td>3</td>
<td>3</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Fourth Year</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Completion of Nuclear Medicine Technology program at the University of Tennessee Medical Center, Knoxville UTMCK (12 month program)</td>
<td>36</td>
<td>36</td>
</tr>
</tbody>
</table>

**Fall Semester**

| 410 Physics for Nuclear Medicine I | 3 | 3      |
| 411 Nuclear Instrumentation       | 3 | 3      |
| 412 Radiopharmacy                 | 3 | 3      |
| 420 Clinical Nuclear Medicine I   | 4 | 4      |
| 450 Clinical Practicum I          | 4 | 4      |

**Spring Semester**

| 415 Physics for Nuclear Medicine II | 3 | 3      |
| 425 Computer Applications in Nuclear Medicine 4 | 3 | 3      |
| 430 Clinical Nuclear Medicine II   | 4 | 4      |
| 460 Clinical Practicum II          | 6 | 6      |
PRE-DENTAL CONCENTRATION

The college offers a three-year program leading to a Bachelor of Science degree with a major in pre-professional programs from the University of Tennessee, Knoxville, is based upon the program outlined below. In the three-year program, the student must complete at least 90 prescribed credit hours while enrolled in the College of Arts and Sciences, and the Bachelor of Science degree is granted upon satisfactory completion of the first year of study in Memphis. The requirement for a major is waived for those taking their fourth year at the University of Tennessee Health Science Center, Memphis. Students must complete the last 30 hours of credit in residence at the University of Tennessee, Knoxville, before enrolling in the College of Dentistry. Admission to the College of Dentistry is at the discretion of that college; admission to and successful completion of the program below does not assure admission to the College of Dentistry. Although the Bachelor of Arts/Bachelor of Science is not required for admission to the College of Dentistry, most 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 degree before enrolling in the College of Dentistry.

Requirements for the Bachelor of Science

• Pre-Professional Programs Major • Pre-Dental Concentration

First Year

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>English 101*-102*</td>
<td>6</td>
<td>6</td>
</tr>
<tr>
<td>1 Biology 130</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>Biology 140</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>Chemistry 120*-130*</td>
<td>8</td>
<td>8</td>
</tr>
<tr>
<td>2 Mathematics* BA/BS requirements. All students must complete the Mathematics and Quantitative Reasoning Basic Skills requirement as outlined in the Arts and Sciences Curriculum Guide. Math 130 or any calculus course is a pre-requisite to Physics.</td>
<td>6-8*</td>
<td>6-8*</td>
</tr>
<tr>
<td>Electives</td>
<td>3</td>
<td>3</td>
</tr>
</tbody>
</table>

Second Year

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chemistry 350-360, 369</td>
<td>8</td>
<td>8</td>
</tr>
<tr>
<td>Physics 221-222</td>
<td>8</td>
<td>8</td>
</tr>
<tr>
<td>3 Foreign Language Intermediate Level*</td>
<td>6</td>
<td>6</td>
</tr>
<tr>
<td>4 Humanities*</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>Non-US History*</td>
<td>6</td>
<td>6</td>
</tr>
<tr>
<td>Communicating Orally (OC) course*</td>
<td>3</td>
<td>3</td>
</tr>
</tbody>
</table>

* Meets University General Education Requirement.
1 Mathematics placement depends on high school courses and grades, ACT scores, and BA/BS requirements. All students must complete the Mathematics and Quantitative Reasoning Basic Skills requirement as outlined in the Arts and Sciences Curriculum Guide. Math 130 or any calculus course is a pre-requisite to Physics.
2 Students who have previously completed Biology 101 and 102 may substitute these two courses for Biology 130.
3 This plan assumes a student has had enough language background in high school to begin an intermediate language sequence at UT-Knoxville.
4 Bachelor of Science students must complete a minimum of 6 credits from at least two departments for the Social Science requirement. The two courses must satisfy the University General Education Requirement in Social Sciences.

Fourth Year

Completion of one year at the University of Tennessee Health Science Center in Memphis.

Total 120

PRE-MEDICAL CONCENTRATION

The college offers a three-year program leading to a Bachelor of Science degree with a major in pre-professional programs from the University of Tennessee, Knoxville, is based upon the program outlined below. In the three-year program, the student must complete at least 90 prescribed credit hours while enrolled in the College of Arts and Sciences, and the Bachelor of Science degree is granted upon satisfactory completion of the first year of study in Memphis. The requirement for a major is waived for those taking their fourth year at the University of Tennessee Health Science Center, Memphis. Students must complete the last 30 hours of credit in residence at the University of Tennessee, Knoxville, before enrolling in the College of Medicine. Admission to the College of Medicine is at the discretion of that college; admission to and successful completion of the program below does not assure admission to the College of Medicine. Although the Bachelor of Arts/Bachelor of Science is not required for admission to the College of Medicine, most students accepted into the study of medicine have the baccalaureate degree before admission. Therefore, pre-medical students are encouraged to plan to complete all requirements for the degree before enrolling in the College of Medicine.
Requirements for the Bachelor of Science
• Pre-Professional Programs Major • Pre-Medical Concentration

<table>
<thead>
<tr>
<th>First Year</th>
<th>Hours Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>English 101*-102*</td>
<td>.6</td>
</tr>
<tr>
<td>Biology 130</td>
<td>.4</td>
</tr>
<tr>
<td>Biology 140</td>
<td>.4</td>
</tr>
<tr>
<td>Chemistry 120*-130*</td>
<td>.8</td>
</tr>
<tr>
<td>Mathematics*</td>
<td>.6-8</td>
</tr>
<tr>
<td>Electives</td>
<td>.3</td>
</tr>
<tr>
<td><strong>Second Year</strong></td>
<td></td>
</tr>
<tr>
<td>Chemistry 350-360, 369</td>
<td>.8</td>
</tr>
<tr>
<td>Physics 221-222</td>
<td>.8</td>
</tr>
<tr>
<td>Foreign Language Intermediate Level*</td>
<td>.6</td>
</tr>
<tr>
<td>Humanities*</td>
<td>.3</td>
</tr>
<tr>
<td>Non-U.S. History</td>
<td>.6</td>
</tr>
<tr>
<td>Communicating Orally (OC) course*</td>
<td>.3</td>
</tr>
<tr>
<td><strong>Third Year</strong></td>
<td></td>
</tr>
<tr>
<td>Humanities* (see Note 4)</td>
<td>.3</td>
</tr>
<tr>
<td>Communicating through Writing (WC) course*</td>
<td>.3</td>
</tr>
<tr>
<td>Social Sciences*</td>
<td>.6</td>
</tr>
<tr>
<td>Upper Level Distribution</td>
<td>.6</td>
</tr>
<tr>
<td>Electives</td>
<td>0-10</td>
</tr>
<tr>
<td><strong>Fourth Year</strong></td>
<td></td>
</tr>
<tr>
<td>Completion of one year at the University of Tennessee Health Science Center in Memphis.</td>
<td></td>
</tr>
<tr>
<td><strong>Total 90 minimum</strong></td>
<td></td>
</tr>
</tbody>
</table>

* Meets University General Education Requirement.

1 Pre-medical students who have previously completed Biology 101 and 102 may substitute this sequence for Biology 130.

2 Mathematics placement depends on high school courses and grades. ACT scores, the Mathematics placement exam, and BA/BS requirements. Math 130 or any calculus course is a prerequisite to physics. At least two courses must satisfy the University General Education Requirement in Quantitative Reasoning.

3 This plan assumes a student has had enough language background in high school to begin an intermediate language sequence at UTK.

4 BS students must complete a minimum of two courses from the three lists under the humanities requirement; not more than one course may be taken from List C. The two courses must satisfy the University General Education Requirement in Arts and Humanities.

5 BS students must complete a minimum of two courses from two departments. The two courses must satisfy the University General Education Requirement in Social Sciences.

6 BS students must complete one course from List A and one from List B.

7 Although not specifically required, Biology 240 and Microbiology 310-319 are recommended as preparation for the MCAT. Additional recommended courses include – BCMB 330-331, 401-402, 421, 440.

PRE-PHARMACY CONCENTRATION

The college offers three program options for preparing students for the study of pharmacy at UT Health Science Center, Memphis. The Doctor of Pharmacy (PharmD) degree is conferred by the College of Pharmacy upon completion of four years of professional study at Memphis after completing any of the three programs options. Bulletins describing the pre-pharmacy program options in detail may be obtained from Arts and Sciences Advising Services.

The three-year program leading to a Bachelor of Science degree with a major in pre-professional programs from the University of Tennessee, Knoxville, is based upon the program outlined below. In the three-year program, the student must complete at least 90 prescribed credit hours while enrolled in the College of Arts and Sciences, and the Bachelor of Science degree is granted upon satisfactory completion of the first year of study in Memphis. The requirement for a major is waived for those taking their fourth year at the University of Tennessee Health Science Center, Memphis. Students must complete the last 30 hours of credit in residence at the University of Tennessee, Knoxville, before enrolling in the College of Pharmacy. Admission to the College of Pharmacy is at the discretion of that college; admission to and successful completion of the program below does not assure admission to the College of Pharmacy.

Requirements for the Bachelor of Science
• Pre-Professional Programs Major • Pre-Pharmacy Concentration

<table>
<thead>
<tr>
<th>First Year</th>
<th>Hours Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>English 101*-102*</td>
<td>.6</td>
</tr>
<tr>
<td>Chemistry 120*-130*</td>
<td>.8</td>
</tr>
<tr>
<td>Mathematics*</td>
<td>.6-8</td>
</tr>
<tr>
<td>Biology 130*</td>
<td>.4</td>
</tr>
<tr>
<td>Biology 140*</td>
<td>.4</td>
</tr>
<tr>
<td>Statistics 201*</td>
<td>.3</td>
</tr>
<tr>
<td>Humanities*</td>
<td>.3</td>
</tr>
<tr>
<td><strong>Second Year</strong></td>
<td></td>
</tr>
<tr>
<td>Chemistry 350-360 and 369</td>
<td>.8</td>
</tr>
<tr>
<td>Biology 240</td>
<td>.4</td>
</tr>
<tr>
<td>Physics 221</td>
<td>.4</td>
</tr>
<tr>
<td>Communication Studies 210* or 240*</td>
<td>.3</td>
</tr>
<tr>
<td>Social Sciences*</td>
<td>.6</td>
</tr>
<tr>
<td>Non-U.S. History*</td>
<td>.6</td>
</tr>
<tr>
<td>Humanities*</td>
<td>.3</td>
</tr>
<tr>
<td><strong>Third Year</strong></td>
<td></td>
</tr>
<tr>
<td>Biochemistry and Cellular and Molecular Biology 401-402</td>
<td>.8</td>
</tr>
<tr>
<td>Humanities*</td>
<td>.3</td>
</tr>
<tr>
<td>Upper Level Distribution</td>
<td>.6</td>
</tr>
<tr>
<td>Electives</td>
<td>.3</td>
</tr>
<tr>
<td><strong>Fourth Year</strong></td>
<td></td>
</tr>
<tr>
<td>Completion of one year at the University of Tennessee Health Science Center in Memphis.</td>
<td></td>
</tr>
<tr>
<td><strong>Total 120</strong></td>
<td></td>
</tr>
</tbody>
</table>

* Meets University General Education Requirement.

1 Pre-pharmacy students who have previously completed Biology 101 and 102 may substitute this sequence for Biology 130.

2 Mathematics placement depends on high school courses and grades. ACT scores, the Mathematics placement exam, and BA/BS requirements. Mathematics 130 or any calculus course is a prerequisite to physics. At least two courses must satisfy the University General Education Requirement in Quantitative Reasoning.

3 This plan assumes a student has had enough language background in high school to begin an intermediate language sequence at UTK.

4 BS students must complete a minimum of two courses from each of the following lists. The two courses must satisfy the University General Education Requirement in Social Sciences.

5 BS students must complete one course from each list. A and B.

6 Although not specifically required, Biology 240 and Microbiology 310-319 are recommended as preparation for the MCAT. Additional recommended courses include – BCMB 330-331, 401-402, 421, 440.

PRE-VETERINARY MEDICINE CONCENTRATION

The following program is designed for students who wish to pursue an arts and sciences degree while preparing for the study of veterinary medicine. Students in this program must complete at least 93 credit hours while enrolled in the College of Arts and Sciences, must satisfy the Basic Skills and Distribution requirements, and must complete the last 30 hours in residence at the University of Tennessee, Knoxville, before enrolling in the College of Veterinary Medicine. A departmental major is not required. Upon successful completion of the first year (two semesters) of the professional veterinary medicine curriculum, the Bachelor of Science degree will be conferred by the College of Arts and Sciences.

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

**Requirements for the Bachelor of Science**

• Pre-Professional Programs Major • Pre-Veterinary Medicine Concentration

<table>
<thead>
<tr>
<th>First Year</th>
<th>Hours Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>English 101* - 102*</td>
<td>.6</td>
</tr>
<tr>
<td>Chemistry 120* - 130*</td>
<td>.8</td>
</tr>
<tr>
<td>1 Biology 130*</td>
<td>.4</td>
</tr>
<tr>
<td>2 Biology 140*</td>
<td>.4</td>
</tr>
<tr>
<td>3 Foreign Language – Intermediate Level Sequence*</td>
<td>.6</td>
</tr>
<tr>
<td><strong>Second Year</strong></td>
<td></td>
</tr>
<tr>
<td>Chemistry 350-360, 369</td>
<td>.8</td>
</tr>
<tr>
<td>Physics 221-222</td>
<td>.8</td>
</tr>
<tr>
<td>Biology 240</td>
<td>.4</td>
</tr>
<tr>
<td>Non-U.S. History</td>
<td>.6</td>
</tr>
<tr>
<td>4 Social Science*</td>
<td>.3</td>
</tr>
<tr>
<td>Communicating Orally (OC) course*</td>
<td>.3</td>
</tr>
<tr>
<td><strong>Third Year</strong></td>
<td></td>
</tr>
<tr>
<td>Biochemistry and Cellular and Molecular Biology 401 and 402</td>
<td>.8</td>
</tr>
<tr>
<td>4 Social Science*</td>
<td>.3</td>
</tr>
<tr>
<td>5 Humanities*</td>
<td>.6</td>
</tr>
<tr>
<td>6 Upper Level Distribution</td>
<td>.6</td>
</tr>
<tr>
<td>7 Biology Elective</td>
<td>.4</td>
</tr>
<tr>
<td>8 Communicating through Writing (WC) course*</td>
<td>.3</td>
</tr>
<tr>
<td><strong>Total 93 minimum</strong></td>
<td></td>
</tr>
</tbody>
</table>

| Fourth Year | |
| Completion of one year at the University of Tennessee College of Veterinary Medicine. | |

<table>
<thead>
<tr>
<th>PhD</th>
<th>Michigan</th>
</tr>
</thead>
<tbody>
<tr>
<td>Harper, J.L.</td>
<td>Associate Professors</td>
</tr>
<tr>
<td>Anderson, D.G.</td>
<td>Michigan</td>
</tr>
<tr>
<td>Kramer, A.</td>
<td>Michigan</td>
</tr>
<tr>
<td>Marks, M.</td>
<td>Tennessee</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>PhD</th>
<th>Michigan</th>
</tr>
</thead>
<tbody>
<tr>
<td>Simek, J.F.</td>
<td>Distinguished Professor</td>
</tr>
<tr>
<td>Logan, M.H.</td>
<td>PhD</td>
</tr>
<tr>
<td>Jantz, R.L.</td>
<td>PhD</td>
</tr>
<tr>
<td>Velte, J.P.</td>
<td>PhD</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>PhD</th>
<th>Tennessee</th>
</tr>
</thead>
<tbody>
<tr>
<td>Driskell, B.N.</td>
<td>Research Director</td>
</tr>
<tr>
<td>Farmer, S.</td>
<td>Research Associate Director</td>
</tr>
<tr>
<td>Chapman, J. (Director, F.H. McClung Museum)</td>
<td>Research Associate Professor</td>
</tr>
<tr>
<td>Frankenberg, S.</td>
<td>Research Assistant Professor and Curator</td>
</tr>
<tr>
<td>Pendry, D.A.</td>
<td>PhD</td>
</tr>
<tr>
<td>Qirk-H.N.</td>
<td>PhD</td>
</tr>
<tr>
<td>* Meets University General Education Requirement</td>
<td></td>
</tr>
</tbody>
</table>

1 Students who have previously completed Biology 101 and 102 may substitute these two courses for Biology 130.

2 Math placement depends on high school courses and grades, ACT scores, and BA/BS requirements. Mathematics 130 or any calculus course is a prerequisite for physics. At least two courses must satisfy the University General Education Requirement in Quantitative Reasoning.

3 This plan assumes a student has had enough language background in high school to begin an intermediate language sequence at UTK.

4 BS students must complete a minimum of two courses from two departments. Both courses must satisfy the University General Education Requirement in Social Science.

5 BS students must complete a minimum of two courses from the three lists under the humanities requirement; not more than one course may be taken from List C. Both courses must satisfy the University General Education Requirement in the Arts and Humanities.

6 BS students must complete one course from List A and one from List B.

7 Upper-level biology courses are preferred.

8 If a course taken for the humanities requirement also appears on the Communicating through Writing (WC) General Education approved list, no additional course is required here.

**DEPARTMENT OF ANTHROPOLOGY**

http://web.utk.edu/~anthrop/

Andrew Kramer, Head

Professors

Bass, W.M., (Alumni Distinguished Service Professor), PhD Pennsylvania

Howell, B.J., PhD | Kentucky

Jantz, R.L., PhD | Kansas

Klippen, W.E., PhD | Missouri

Königsberg, L., PhD | Northwestern

Logan, M.H., PhD | Penn State

Schoedel, G.F., PhD | Washington State

Simek, J.F. (Distinguished Professor), PhD State University of New York (Binghamton)

Associate Professors

Anderson, D.G., PhD | Michigan

Kramer, A., PhD | Michigan

Mark, M., PhD | Tennessee

Assistant Professor

Harper, J.L., PhD | Michigan

**Progression Requirements**

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

ANTHROPOLOGY MAJOR

The anthropology major consists of 30 hours including 450 or 357 and 27 additional hours of upper-division coursework in anthropology. This course work shall be distributed as follows.

Archaeological method and theory
One course from 361, 362, 440, 464.

Archaeological area
One course from 360, 363, 462, 463.

Cultural area
One course from 310, 311, 312, 313, 315, 316, 319, 320, 322.

Cultural method and theory
One course from 410, 411, 412, 413, 414, 415, 416, 431.

Biological anthropology
Two courses from 480, 485, 490, 494, 495, 496.

Remaining hours
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 the above.

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

HONORS CONCENTRATION

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

Minor in Anthropology

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

SCHOOL OF ART

http://art.utk.edu
Paul Lee, Director
Suzanne Wright, Associate Director

Professors
Brakke, M., MFA ............................................. Yale
Goldenstein, M.B., MFA .................................. Nebraska
Habel, D.M., PhD ............................................ Michigan
Lee, B., MFA .............................................. Yale
Lee, P., MFA .............................................. Cranbrook
Leland, W.E., MFA ......................................... Tennessee
Lyons, B., MFA ............................................. Arizona State
Magden, N., PhD ........................................ Case Western Reserve
Riesing, T.J., MFA ......................................... Nebraska
Staples, C., MFA .......................................... Michigan State
Wilson, D., MFA .......................................... Wisconsin
Yates, S.A., MFA ......................................... North Carolina (Greensboro)

Associate Professors
Brodgen, S., MFA ................................. New York State College of Ceramics at Alfred
Dewey, W., PhD ........................................ Indiana
Hiles, T.W., PhD ......................................... Pennsylvania State
Neff, A.L., PhD ......................................... Pennsylvania
Jung, A., MFA .............................................. Wisconsin
Wright, S., PhD ........................................... Stanford

Assistant Professors
Boylan, A.L., PhD ........................................ Rutgers
Brown, J., MFA ........................................... Rhode Island School of Design
Lough, W., MFA ........................................ Temple
Lowe, S., MGD ........................................... North Carolina State
Martin, F., MFA .......................................... Cranbrook
Shmeter, D., MFA ....................................... Virginia Commonwealth
Sprecher, J.B., MFA ..................................... Iowa

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

- Art 101
- Art 103
- Art History 162, 172, 173, or 183 (choose one)

Those applying will be admitted into the program in rank order of cumulative average as space allows. The overall record will be evaluated for quality and seriousness of purpose. Excessive absences, withdrawals, incompletes or repeated courses may result in denial of progression. Progression into the School of Art does not guarantee progression into a chosen concentration. Progression into a concentration will follow successful completion of a concentration Portfolio Review.

BACHELOR OF FINE ARTS • STUDIO ART MAJOR

The Bachelor of Fine Arts with a major in studio art is a professionally-oriented degree especially intended for those students planning careers or graduate study in the visual arts. All students seeking studio degrees (Bachelor of Arts and Bachelor of Fine Arts) must present and pass the appropriate Portfolio Review for their area of study in order to be admitted into advanced courses. Contact specific program area faculty for review of schedules and details. It should not be assumed that a high grade point average in the major itself assures passage of Portfolio Review. The Portfolio Review is recommended in the sophomore year and is intended to provide students with an overview assessment of their potential for success in the intended area of study early enough to allow a student to make a program change should that be advisable. Before choosing a concentration, students should contact their intended area to see what options are offered in the event they do not pass Portfolio Review. All studio courses require 3 hours per week attendance for each credit hour earned. Completing the Bachelor of Fine Arts program may take more than eight semesters. Students are urged to seek departmental advisement each semester to ensure proper scheduling. Students seeking the Bachelor of Fine Arts should also consider pursuing a minor in art history.

Transfer students are advised that a minimum of 21 hours in studio courses, and 6 upper-division hours in art history, must be earned at the University of Tennessee, Knoxville. Transfer students must have a minimum overall GPA of 3.00 in art and art history courses and may be required to present a portfolio. Those students who have not taken any art courses must take the sequence of courses required of freshmen (Progression Requirements). Students should be cautioned that art courses taken at another institution may not apply toward their concentration. Art Design 252, Art Drawing 212, and Art Painting 214 must be taken at the University of Tennessee, Knoxville. Courses not accepted for application toward a concentration may be counted toward studio electives.

No grade below C in art courses may be applied to the Bachelor of Fine Arts major. A minimum of 42 credit hours, 300 level
CERAMICS CONCENTRATION

Requirements for the Bachelor of Fine Arts • Studio Art Major • Ceramics Concentration

Core

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Art 101, 103</td>
<td>.6</td>
</tr>
<tr>
<td>Art 295</td>
<td>.3</td>
</tr>
<tr>
<td>Art History 172* and 173* and 162* or 183*</td>
<td>.9</td>
</tr>
<tr>
<td>Art History Electives</td>
<td>.6</td>
</tr>
</tbody>
</table>

One course from each of the following 6 areas:
- Art Ceramics, Art Drawing, Art Media Arts, Art Painting/Watercolor, Art Printmaking, and Art Sculpture

Concentration

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ceramics 221 or 222</td>
<td>.3</td>
</tr>
<tr>
<td>Art Ceramics Portfolio Review 320</td>
<td>.0</td>
</tr>
<tr>
<td>(Satisfactory/No Credit Grading)</td>
<td>.0</td>
</tr>
<tr>
<td>Ceramics 321, 322 (prerequisite for all 400-level courses)</td>
<td>.8</td>
</tr>
<tr>
<td>Ceramics 421, 422</td>
<td>.12</td>
</tr>
</tbody>
</table>

Approved Concentration Electives:
- 9 hours from the following – Art Ceramics 424, 429; Art Drawing 212; Art Sculpture 241, 242, 243, 245, 246; Art Printmaking 262, 263; Art Painting 213, 214, 215

1 Studio Electives

Additional hours in studio courses to be completed in the School of Art or 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, computer science, journalism and electronic media, interior design or theatre.

General Curriculum (consult University General Education Requirement for appropriate choices within each category)

<table>
<thead>
<tr>
<th>Category</th>
<th>Hours Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>English 101*, 102* or their equivalent</td>
<td>.6</td>
</tr>
<tr>
<td>Quantitative Reasoning (2 courses)*</td>
<td>.6</td>
</tr>
<tr>
<td>Natural Sciences (2 courses; at least one with laboratory)*</td>
<td>.7</td>
</tr>
<tr>
<td>Social Sciences (2 courses)*</td>
<td>.6</td>
</tr>
<tr>
<td>Cultures and Civilizations (2 courses)*</td>
<td>.6</td>
</tr>
<tr>
<td>Communicating through Writing*</td>
<td>.0-3</td>
</tr>
<tr>
<td>Communicating Orally*</td>
<td>.0-3</td>
</tr>
</tbody>
</table>

Total 120-126

* Meets University General Education Requirement.

1 Students electing an additional major in art education and licensure to teach in schools K-12 may apply 13 hours in undergraduate art education courses.
General Curriculum (consult University General Education Requirement for appropriate choices within each category)

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>English 101*, 102* or their equivalent</td>
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<td>Quantitative Reasoning (2 courses)*</td>
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<td>Social Sciences (2 courses)*</td>
<td>6</td>
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<td>Cultures and Civilizations (2 courses)*</td>
<td>6</td>
</tr>
<tr>
<td>Communicating through Writing*</td>
<td>0-3</td>
</tr>
<tr>
<td>Communicating Orally*</td>
<td>0-3</td>
</tr>
</tbody>
</table>

Total 120-126

* Meets University General Education Requirement.

Students electing an additional major in art education and licensure to teach in schools K-12 may apply 12 hours in undergraduate art education courses.

PAINTING CONCENTRATION

Requirements for the Bachelor of Fine Arts • Studio Art Major • Painting Concentration

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Art 101, 103</td>
<td>.6</td>
</tr>
<tr>
<td>Art 295</td>
<td>3</td>
</tr>
<tr>
<td>Art History 172* and 173* and 162* or 183*</td>
<td>9</td>
</tr>
<tr>
<td>Art History Electives</td>
<td>6</td>
</tr>
</tbody>
</table>

One course from each of the following 6 areas – Art Ceramics, Art Drawing, Art Media Arts, Art Painting/Watercolor, Art Printmaking, and Art Sculpture | 18 |

Concentration

Painting 214 (may be repeated) | .3 |
Art Painting 314 (Portfolio Review) (Satisfactory/No Credit Grading) | .0 |
Painting 313 (for two semesters) | .8 |
Painting 413 (for two semesters) | .12 |

Approved Concentration Electives:

9 hours from the following – Art Drawing 219/419 (maximum 6 hours); Art Painting 215, 216; Art Media Arts 231; Art Drawing 212 | 9 |

1 Studio Electives

Additional hours in studio courses to be completed in the School of Art or 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, computer science, journalism and electronic media, interior design or theatre. | 15 |

General Curriculum (consult University General Education Requirement for appropriate choices within each category)

<table>
<thead>
<tr>
<th>Course</th>
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<td>Cultures and Civilizations (2 courses)*</td>
<td>6</td>
</tr>
<tr>
<td>Communicating through Writing*</td>
<td>0-3</td>
</tr>
<tr>
<td>Communicating Orally*</td>
<td>0-3</td>
</tr>
</tbody>
</table>

Total 120-126

* Meets University General Education Requirement.

Students electing an additional major in art education and licensure to teach in schools K-12 may apply 13 hours in undergraduate art education courses.

PRINTMAKING CONCENTRATION

Requirements for the Bachelor of Fine Arts • Studio Art Major • Printmaking Concentration

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Art 101, 103</td>
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<td>Art 295</td>
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</tr>
<tr>
<td>Art History 172* and 173* and 162* or 183*</td>
<td>9</td>
</tr>
<tr>
<td>Art History Electives</td>
<td>6</td>
</tr>
</tbody>
</table>

One course from each of the following 6 areas – Art Ceramics, Art Drawing, Art Media Arts, Art Painting/Watercolor, Art Printmaking, and Art Sculpture | 18 |

Concentration

Printmaking 200-level course | .3 |
Art Printmaking 360 (Portfolio Review) (Satisfactory/No Credit Grading) | .0 |
Printmaking 300- and 400-level courses | 20 |

1 Studio Electives

Additional hours in studio courses to be completed in the School of Art or 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, computer science, journalism and electronic media, interior design or theatre. | 24 |

General Curriculum (consult University General Education Requirement for appropriate choices within each category)

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours Credit</th>
</tr>
</thead>
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<tr>
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<tr>
<td>Cultures and Civilizations (2 courses)*</td>
<td>6</td>
</tr>
<tr>
<td>Communicating through Writing*</td>
<td>0-3</td>
</tr>
<tr>
<td>Communicating Orally*</td>
<td>0-3</td>
</tr>
</tbody>
</table>

Total 120-126

* Meets University General Education Requirement.

Students electing an additional major in art education and licensure to teach in schools K-12 may apply 13 hours in undergraduate art education courses.

SCULPTURE CONCENTRATION

Requirements for the Bachelor of Fine Arts • Studio Art Major • Sculpture Concentration

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Art 101, 103</td>
<td>.6</td>
</tr>
<tr>
<td>Art 295</td>
<td>3</td>
</tr>
<tr>
<td>Art History 172* and 173 and 162* or 183*</td>
<td>9</td>
</tr>
<tr>
<td>Art History Electives</td>
<td>6</td>
</tr>
</tbody>
</table>

One course from each of the following 6 areas – Art Ceramics, Art Drawing, Art Media Arts, Art Painting/Watercolor, Art Printmaking, and Art Sculpture | 18 |

Concentration

Art Sculpture 200-level course | .3 |
Art Sculpture 340 (Portfolio Review) (Satisfactory/No Credit Grading) (Prerequisite to 300- and 400-level courses) | .0 |
Art Sculpture 300- and 400-level courses | 20 |

1 Studio Electives

Additional hours in studio courses to be completed in the School of Art or 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, computer science, journalism and electronic media, interior design or theatre. | 24 |

General Curriculum (consult University General Education Requirement for appropriate choices within each category)

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours Credit</th>
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<tbody>
<tr>
<td>English 101*, 102* or their equivalent</td>
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<tr>
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<td>6</td>
</tr>
<tr>
<td>Cultures and Civilizations (2 courses)*</td>
<td>6</td>
</tr>
<tr>
<td>Communicating through Writing*</td>
<td>0-3</td>
</tr>
<tr>
<td>Communicating Orally*</td>
<td>0-3</td>
</tr>
</tbody>
</table>

Total 120-126

* Meets University General Education Requirement.

Students electing an additional major in art education and licensure to teach in schools K-12 may apply 13 hours in undergraduate art education courses.

WATERCOLOR CONCENTRATION

Requirements for the Bachelor of Fine Arts • Studio Art Major • Watercolor Concentration

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Art 101, 103</td>
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</tr>
<tr>
<td>Art 295</td>
<td>3</td>
</tr>
<tr>
<td>Art History 172* and 173* and 162* or 183*</td>
<td>9</td>
</tr>
<tr>
<td>Art History Electives</td>
<td>6</td>
</tr>
</tbody>
</table>

One course from each of the following 6 areas – Art Ceramics, Art Drawing, Art Media Arts, Art Painting/Watercolor, Art Printmaking, and Art Sculpture | 18 |

1 Studio Electives

Additional hours in studio courses to be completed in the School of Art or 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, computer science, journalism and electronic media, interior design or theatre. | 24 |

General Curriculum (consult University General Education Requirement for appropriate choices within each category)

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>English 101*, 102* or their equivalent</td>
<td>6</td>
</tr>
<tr>
<td>Quantitative Reasoning (2 courses)*</td>
<td>6</td>
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<td>Social Sciences (2 courses)*</td>
<td>6</td>
</tr>
<tr>
<td>Cultures and Civilizations (2 courses)*</td>
<td>6</td>
</tr>
<tr>
<td>Communicating through Writing*</td>
<td>0-3</td>
</tr>
<tr>
<td>Communicating Orally*</td>
<td>0-3</td>
</tr>
</tbody>
</table>

Total 120-126

* Meets University General Education Requirement.

Students electing an additional major in art education and licensure to teach in schools K-12 may apply 13 hours in undergraduate art education courses.
BACHELOR OF FINE ARTS • GRAPHIC DESIGN MAJOR

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

Transfer students are advised that a minimum of 21 hours in studio courses and 6 upper-division hours in art history must be earned at the University of Tennessee, Knoxville, as well as Art Design 252. Transfer students who expect to enroll in 300 (junior level) courses must present a portfolio of 10-15 works, the majority of which must be in graphic design.

No grade below C in art courses may be applied to the Bachelor of Fine Arts degree. A minimum of 42 credit hours, 300 level or above, must be earned prior to graduation.

A minimum of 120 hours are required. Students are advised that courses in graphic design must be taken in sequence, and that successful completion of Portfolio Review (350) is prerequisite to all upper-division courses.

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

Requirements for the Bachelor of Fine Arts • Graphic Design Major

<table>
<thead>
<tr>
<th>Art Core</th>
<th>Hours Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Art 101, 103, 295</td>
<td>3</td>
</tr>
<tr>
<td>Art History 172*, 173*</td>
<td>6</td>
</tr>
<tr>
<td>Art Drawing 211</td>
<td>3</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Graphic Design</th>
<th>Hours Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Art Graphic Design 251, 252, 351, 352, 356, 451, 452, 455 (in sequence)</td>
<td>24</td>
</tr>
<tr>
<td>Art Graphic Design 350 (Portfolio Review)</td>
<td>24</td>
</tr>
<tr>
<td>Art Graphic Design 444 (maximum 6 hours) and/or 456</td>
<td>8</td>
</tr>
</tbody>
</table>

Required Design and Professional

| Art Graphic Design 405 | 3 |
| Art Graphic Design 459 | 3 |
| Art Graphic Design 450 | 3 |
| Art Graphic Design 254, 256, 259, 354, 396, 405, 453, 454, 459 (choose one) | 3 |

Required Studio

| Art Drawing 212; Art Painting 213 (or 215); Media Arts 231; Art Drawing 212 | 9 |

* Meets University General Education Requirement.

Students may also apply a maximum of 6 hours of approved studio courses from architecture, art education, computer science, journalism and electronic media, interior design or theatre.

General Curriculum (consult University General Education Requirement for appropriate choices within each category)

| English 101*, 102* or their equivalent | 6 |
| Quantitative Reasoning (2 courses)* | 6 |
| Natural Sciences (2 courses; at least one with laboratory)* | 7 |
| Social Sciences (2 courses)* | 6 |
| Cultures and Civilizations (2 courses)* | 6 |
| Communicating through Writing* | 0-3 |
| Communicating Orally* | 0-3 |

Total 120-126

* Meets University General Education Requirement.

ART HISTORY MAJOR

Requirements for the Bachelor of Arts • Art History Major

<table>
<thead>
<tr>
<th>Prerequisites</th>
<th>Hours Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Art History 172, 173, and 162 or 183 (or their Honors equivalents) with a grade of C or better</td>
<td>9</td>
</tr>
</tbody>
</table>

Major

| Art History courses numbered 300 and above | 18 |

One course in four of the following areas.

Medieval/Early Renaissance

- Art History 425, 431, 441, 451

Renaissance/Baroque

- Art History 442, 452, 453, 454

American

- Art History 471, 472, 473, 483

19th/20th Century

- Art History 403, 472, 474, 475, 476; Art Media Arts 433

Non-Western

- Art History 411, 415, 416, 419, 461, 462, 463, 464

Six Art History elective hours or from courses in the Departments of Classics, Religious Studies, or School of Architecture in consultation with departmental advisor.

| Art 481 | 3 |
| Art History 376 | 3 |
| Studio courses numbered 200 and above | 3 |

Total 36

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

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

Minor in Art History

<table>
<thead>
<tr>
<th>Prerequisites</th>
<th>Hours Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Art History 172, 173, and 162 or 183 (or their Honors equivalents) with a grade of C or better</td>
<td>9</td>
</tr>
</tbody>
</table>

Minor

| Art History courses numbered 200 and above | 15 |

Total 24
STUDIO ART MAJOR
Requirements for the Bachelor of Arts • Studio Art Major
Prerequisites Hours Credit
Art 101, 103, 295 ......................................................... 9
Art History 162, 172, 173, 183 (any 2 with a grade of C or better) and 3 additional hours ......................................................... 9
Major
Studio courses numbered 200 and above, including a minimum of 15 hours in 300-400 level courses ......................................................... 24
Total 42

Minor in Studio Art
Prerequisites Hours Credit
Art 101, 103, 295 ......................................................... 9
Art History 172, 173, 182, 183 (or their Honors equivalents) (any 2, one of which must be 172 or 173) ......................................................... 6
Minor
Studio courses which include a minimum of 8 additional upper-division hours ......................................................... 15
Total 30

DEPARTMENT OF AUDDLLOGY AND SPEECH PATHOLOGY
http://web.utk.edu/~asoweb/
Lisa Schwarz, Head
Professor
Schwarz, I., PhD ......................................................... Oregon
Associate Professors
Erickson, H., MA ......................................................... Southern California
Hedrick, M., PhD ......................................................... Vanderbilt
Swanson, L., PhD ......................................................... Purdue
Theilin, J., PhD ......................................................... Iowa
Assistant Professors
Flipsen, P., PhD ......................................................... Wisconsin
Harkrider, A., PhD ......................................................... Texas
Horton-Ikard, R., PhD ......................................................... Wisconsin
Karow, C., PhD ......................................................... Texas
Munoz, M., PhD ......................................................... Texas
Plyler, P., PhD ......................................................... Tennessee
Saltuklaroglu, T., PhD ......................................................... East Carolina
Von Hapsburg, D., PhD ......................................................... Texas
Instructor
Singleton, T., MS ......................................................... Colorado State
Clinical Director
Michael A., PhD ......................................................... Vanderbilt
Clinical Faculty
Arp, D., MA ......................................................... Tennessee
Barnes, V., MA ......................................................... Tennessee
Beeler, J., MA ......................................................... Tennessee
Buehler, V., MA ......................................................... Tennessee
Campbell, J., AuD ......................................................... Arizona School of Health Sciences
Cutter, M., PhD ......................................................... Georgia
Davidson, M., MA ......................................................... Tennessee
DeGennaro, A., MA ......................................................... Case Western
Donels, E., MA ......................................................... Tennessee
Gehrlein, B., MA ......................................................... Washington (St. Louis)
Gibson, K., MA ......................................................... Arizona State
Humphrey, E., AuD ......................................................... Tennessee
Hume, S., PhD ......................................................... Tennessee
Jenkins, K., MA ......................................................... Tennessee
Mintz, B., MA ......................................................... Penn State
Noss, E., MA ......................................................... Tennessee
Pemberton, S., MA ......................................................... Tennessee
Plyler, E., AuD ......................................................... Arizona School of Health Sciences
Powers, H., MA ......................................................... Tennessee
Schay, N., AuD ......................................................... Tennessee
Seafoss, M., MA ......................................................... Tennessee
Sheridan, C., MA ......................................................... Tennessee
Thomas, T., MA ......................................................... Tennessee
Valentine, D., PhD ......................................................... Tennessee
Vantrease, C., MA ......................................................... Tennessee
Vaughn, T., MS ......................................................... Eastern Kentucky

WEBb, P., MEd ......................................................... Florida
Yeager, K., AuD ......................................................... Tennessee

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 or Doctor of Audiology is required for professional certificates and employment positions. Information about the audiology and speech pathology programs may be obtained from the departmental office, South Stadium Hall, and students are strongly encouraged to consult with the undergraduate advisor in the department as early as possible in their programs. Suggested elective courses for students not majoring in audiology or speech pathology include 300, 302, 303, 305, 306, 320, and 473.

Students who fail to satisfy the above prerequisites for clinical practicum experience may graduate with a degree from the department, but will not be recommended for graduate study at the University of Tennessee, Knoxville. Requests for exceptions to this rule may be submitted to the departmental Admissions Committee.

Additional requirements for professional certification in audiology and speech pathology include at least 6 semester hours in behavioral and/or social sciences which pertain to the understanding of normal/abnormal behavior and at least one course in each of the following areas: biological sciences, physical sciences, and mathematics. Students majoring in both audiology and speech pathology are strongly encouraged to consult with the department undergraduate advisor before selecting elective courses.

AUDIOLOGY MAJOR
Admission to the major requires a minimum cumulative GPA of 3.0 after completion of at least 60 credit hours. Admission to the major does not guarantee admission to the graduate program.

The audiology major consists of 31 hours in audiology and speech pathology courses including 300, 302, 303, 305, 306, 320, 433, 435, 461, 473, and 494.

SPEECH PATHOLOGY MAJOR
Admission to the major requires a minimum cumulative GPA of 3.0 after completion of at least 60 credit hours. Admission to the major does not guarantee admission to the graduate program.

The speech pathology major consists of 34 hours including audiology and speech pathology 300, 302, 303, 305, 306, 320, 433, 435, 461, 473, and 494; and one course from the following – Linguistics 371, 372, 411, 425, 429, 431, 435, 471, 472, 474, 475, 476, or 477.
DEPARTMENT OF BIOCHEMISTRY AND CELLULAR AND MOLECULAR BIOLOGY

http://web.bio.utk.edu/bcmb/

Bruce D. McKee, Head

Professors
Ganguly, R., PhD .......................... Nebraska
Hickok, L., PhD .......................... Massachusetts
Howell, E., PhD .......................... Lehigh
Joy, D. (Distinguished Scientist), DPhil .......................... Oxford (UK)
Koontz, J., PhD .......................... Kentucky
McKee, B., PhD .......................... Michigan State
Mullin, B., PhD .......................... North Carolina State
Peterson, C., PhD .......................... Louisiana State
Roberts, D., PhD .......................... California (Davis)
Serpersu, E., PhD .......................... Hatecepe

Associate Professors
Bruce, B., PhD .......................... California (Berkeley)
Dealwis, C., PhD .......................... London
Hall, J., PhD .......................... Illinois
Prosser, R., PhD .......................... Illinois

Assistant Professors
Fernandez, E., PhD .......................... Loyola
Guo, H., PhD .......................... Harvard
Jain, N., PhD .......................... Brandeis
Kilazomo A., PhD .......................... Japan
Labrador, M., PhD .......................... Madrid (Spain)
Nebenführ, A., PhD .......................... Oregon State
Park, J., PhD .......................... Texas
Venkatachalam, S., PhD .......................... Ohio State
von Anım, A., PhD .......................... East Anglia (UK)

Adjunct and Research Faculty
Allison, D., MS .......................... Tennessee
Georghiou, S., PhD .......................... Manchester
Hartman, F., PhD .......................... Tennessee
Klebig, M., PhD .......................... Tennessee
Liu, Yie, PhD .......................... Sweden
Mazur, P., PhD .......................... Harvard
O’Neill, H., PhD .......................... Dublin (Ireland)
Rinchik, G., PhD .......................... Duke
Wetzel, R., PhD .......................... California (Berkeley)

Biochemistry, cell biology, and molecular biology study the function of cells and organisms at the molecular level. The concentration includes the study of the structure and function of proteins, lipids, carbohydrates, DNA and RNA, as well as how these and other molecules control cellular and organismal function. The curriculum prepares students for a variety of careers in biological research, biotechnology, the health professions or education.

Students wishing to emphasize study in this area elect to major in biological sciences with a concentration in biochemistry and cellular and molecular biology. See the description of the major and concentration under Division of Biology for requirements.

DIVISION OF BIOLOGY

http://web.bio.utk.edu/division/

John Koontz, Interim Director

Interim Coordinator
Brewton, R., PhD .......................... Tennessee

Lecturer
Guffey, S., PhD .......................... Tennessee

The Division of Biology consists of the following departments: Biochemistry and Cellular and Molecular Biology (BCMB), Ecology and Evolutionary Biology (EEB), and Microbiology. Each offers a separate concentration within a common Bachelor of Science major, biological sciences, followed by the concentration name. (Honors options are described after each concentration.)

BIOLOGICAL SCIENCES MAJOR

The biological sciences major offers concentrations in: biochemistry and cellular and molecular biology; ecology and evolutionary biology; microbiology; and plant biology. An honors option is available in all four concentrations.

Prerequisites to all Concentrations

Chemistry 120-130; Physics 221-222; Mathematics 141-142 or 151-152; Biology 111-112 or 130, Biology 140-240-250.

Progression Requirements

Students may declare a biological sciences major after completing the prerequisites Chemistry 120-130, and Biology 111-112 or 130 courses with at least a 2.5 GPA in those courses. A cumulative 2.5 GPA is required to declare and to continue in the major.

Students wishing to declare a major in biological sciences will be assigned a faculty advisor in one of the biological sciences departments in consultation with the student. Declaration of a biological sciences major should occur as soon as the student decides on this course of study, but not later than three semesters before the expected graduation date in order to ensure that requirements can be met in a timely manner.

BIOCHEMISTRY AND CELLULAR AND MOLECULAR BIOLOGY CONCENTRATION

The concentration consists of 32 hours including Chemistry 350-360-369, Biochemistry and Cellular and Molecular Biology 401-402, and

- At least 16 additional credit hours selected from biochemistry and cellular and molecular biology courses numbered 300 or above (except Biochemistry and Cellular and Molecular Biology 310, 457) or from the following courses in other departments: Microbiology 310-319, 410, 411, 420-429, 430, 440, 460. Ecology and Evolutionary Biology 350, 360, 460.
- At least two of the 16 credit hours must be selected from the following laboratory courses: Biochemistry and Cellular and Molecular Biology 403, 416, 419, 429 and 452, and Biology 401.
- At least three of the 16 credit hours must be selected from the following physiology courses: Biochemistry and Cellular and Molecular Biology 321, 440, and Microbiology 310. No more than 9 of the 16 credit hours may be in non-Biochemistry and Cellular and Molecular Biology courses.

Honors Option

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

ECOLOGY AND EVOLUTIONARY BIOLOGY CONCENTRATION

The concentration consists of 33 hours.

- Chemistry 350.

While not required, Chemistry 360-369 is recommended for students that plan to pursue medical professions and the following disciplines within ecology and evolutionary biology: physiological ecology, chemical ecology, environmental toxicology and molecular evolution and systematics. Chemistry 360-369 can be applied to the Ecology and Evolutionary Biology upper-division requirements and are listed under the Physiology/Chemical Ecology category below.
• Quantitative Requirement – Statistics 201 or Statistics 251 and one course from the following (note prerequisites in parentheses): Mathematics 231 (Prereq: Mathematics 141-142); Mathematics 251 (Prereq: Mathematics 141-142); Mathematics 405 (Prereq: Mathematics 141-142 or 151-152); Statistics 320 (Prereq: Statistics 201); Statistics 330 (Prereq: Statistics 201). Mathematics 141-142 or 151-152 can be used to satisfy Ecology and Evolutionary Biology requirements. However, Mathematics 141-142 is recommended for students with a strong interest in quantitative ecology and is prerequisite to several courses that satisfy the Ecology and Evolutionary Biology Quantitative Requirement.

• Upper-Division courses – A total of 24 additional hours is required at the 300 level or above to include at least 15 hours from Ecology and Evolutionary Biology, and at least one course from each of the following categories.
  
  Evolution – Ecology and Evolutionary Biology 410, 460, 465*, 495*.
  
  Ecology – Ecology and Evolutionary Biology 433*, 446*, 470*, 484; Microbiology 470.
  
  
  Physiology/Chemical Ecology – Biochemistry and Cellular and Molecular Biology 310, 321, 415, 416*, 419*, 440; Chemistry 360, 369*; Microbiology 310, 319*.

*Courses with lab or field component.

• The remaining hours for the ecology and evolutionary biology concentration can include any of the remaining ecology and evolution courses or appropriate upper-division courses offered by the following departments: Anthropology; Earth and Planetary Sciences; Forestry, Wildlife and Fisheries; Geography; Microbiology; Plant Sciences. A list of approved appropriate courses may be obtained from the office of either the Division of Biology or the Department of Ecology and Evolutionary Biology’s Web page. Other courses, related to the student’s determined interests, may be approved by petition to the department and the division. Courses applied to the major must include at least 4 hours at the 400-level and one laboratory or field course.

Honors Option

Requirements for the honors option are:

• Completion of requirements for the biological sciences major – ecology and evolutionary biology concentration.

• A GPA of 3.5 in all the 300-level and above courses from the concentration and an overall GPA of 3.2.

• A minimum of 4 hours of Ecology and Evolutionary Biology 400, Undergraduate Research, during the junior and senior years.

• Ecology and Evolutionary Biology 407, Senior Thesis.

• Ecology and Evolutionary Biology 490, Undergraduate Seminar.

MICROBIOLOGY CONCENTRATION

The concentration consists of 34 hours including Chemistry 350-360-369, Biochemistry and Cellular and Molecular Biology 401, Microbiology 310-319, 320-329, and 12 additional hours of 400-level microbiology courses.

Honors Option

An honors option is offered to selected students who have completed the required 300-level microbiology courses with a minimum grade point average of 3.5 in microbiology courses and 3.2 for all courses. In addition to these 300-level courses, an honors option requires successful completion of 15 additional hours of 400-level microbiology courses, including 401 and 402.

PLANT BIOLOGY CONCENTRATION

The plant biology concentration consists of 29-34 hours including:

• Chemistry 350-360-369 or 350, 310-319 or 310-319 and Biochemistry and Cellular and Molecular Biology 310.

• Biochemistry and Cellular and Molecular Biology 321; Ecology and Evolutionary Biology 330, 400 (1-4 hours), 410, 490 (1-2 hours); plus 9 additional hours of other upper-division courses offered by life science departments (except Biochemistry and Cellular and Molecular Biology 306, Ecology and Evolutionary Biology 304, 309).

A list of approved courses from other life science departments is available in the Division of Biology office.

Honors Option

Requirements for an honors option are:

• A GPA of 3.5 in all the 300-level and above courses from the concentration and an overall GPA of 3.2.

• A minimum of 4 hours of Ecology and Evolutionary Biology 400 (undergraduate research) during the junior and senior year.

• A senior thesis that is acceptable to the student’s committee.

Students interested in pursuing an honors option should contact the Division of Biology office for details.

Minor in Biological Sciences

A minor in the Biological Sciences consists of 16 hours. Prerequisites are Biology 111-112 or 130, 140; and Chemistry 120-130. Requirements are Biology 240 and 250; and at least 8 hours chosen from 300- and 400-level courses in Biochemistry, Cellular and Molecular Biology; Ecology and Evolutionary Biology; or Physiology. In meeting the upper-division minimum requirement not more than 6 hours may be credited from any one biological science department, and not more than 3 hours of undergraduate research may be credited.

DEPARTMENT OF CHEMISTRY

http://www.chem.utk.edu

Craig E. Barnes, Interim Head

Professors

Adcock, J.L., PhD ..................................................Texas
Baker, D.C., PhD ..................................................Ohio State
Barnes, C.E., PhD ..................................................Stanford
Bartmess, J.E., PhD .............................................Northwestern
Compton, R.N., PhD ..........................................Tennessee
Cook, K.D., PhD .................................................Wisconsin
Feigerte, C.S., PhD ...............................................Colorado
Guiochon, G.A. (Distinguished Scientist, Science Alliance Center of Excellence), PhD .................Université de Paris (France)
Kabalka G.W. (Robert H. Cole Professor, Alumni Distinguished Service Professor), PhD ............Purdue
Kovac, J.D., PhD ..................................................Yale
Larese, R.J., PhD ...............................................Wesleyan
Magid, L.J., PhD ...............................................Tennessee
Magid, R.M., PhD ...............................................Yale
Mays, J.W. (Distinguished Scientist, Science Alliance Center of Excellence), PhD .........................Akron
Pagni, R.M., PhD ...............................................Wisconsin
Schweitzer, G.K. (Alumni Distinguished Service Professor), PhD ................................Illinois
Sepaniak, M.J., PhD ..............................................Iowa State
Williams, T.F. (Alumni Distinguished Service Professor), PhD ................................................London (UK)
Woods, III, C., (Vice Chancellor for Research) PhD ..........................................................North Carolina State
Xue, Z., PhD ..................................................UCLA

Associate Professors

Dadmun, M.D., PhD .............................................Massachusetts
Hinde, R.J., PhD ..................................................Chicago
Musfeldt, J.L., PhD ..............................................Florida
Schell, F.M., PhD ...............................................Indiana
Further information will be supplied on request.

Cooperative Program

A cooperative program is available to students who are chemistry majors. After the freshman year, the student alternates a semester in school with a semester in a job in the chemical industry. The program normally requires five years and involves a total of four work semesters and eight school semesters. Students are required to have at least a 2.5 average to enter and remain in the program. Some opportunity exists for students to enter the program later than the end of the freshman year. Interested students should make application to the head of the department at least one semester in advance of the beginning of the first work period. Further information will be supplied on request.

BACHELOR OF SCIENCE IN CHEMISTRY

• CHEMISTRY MAJOR

The Bachelor of Science in Chemistry 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 Bachelor of Science in Chemistry program should, at the earliest opportunity, ask the Arts and Sciences Advising Center for assignment of a faculty advisor in the Department of Chemistry. For further information, contact the Head of Department of Chemistry, 552 Buehler Hall.

Requirements for the Bachelor of Science in Chemistry

• Chemistry Major

Although not reflected in the showcase, students are required to meet the University General Education Requirement as stated in this catalog. Consult the College of Arts and Sciences Advising Services for updated information.

First Year

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chemistry 120-130 or (preferably) 128-138</td>
<td></td>
<td>8</td>
</tr>
<tr>
<td>Mathematics 141-142</td>
<td></td>
<td>8</td>
</tr>
<tr>
<td>English Composition</td>
<td></td>
<td>6</td>
</tr>
<tr>
<td>1 Foreign Language (intermediate level sequence)</td>
<td>6-10</td>
<td></td>
</tr>
<tr>
<td>2 Distribution</td>
<td></td>
<td>3</td>
</tr>
</tbody>
</table>
| Second Year
| Chemistry 240                 |       | 2      |
| Chemistry 230                 |       | 3      |
| Chemistry 350-360             |       | 6      |
| Chemistry 369                 |       | 2      |
| Mathematics 241 and either 231 or 251 |       | 7      |
| Physics 135-136 or 137-138    |       | 6-10   |
| 2 Distribution               |       | 3      |
| Third Year
| Chemistry 310-320              |       | 6      |
| Chemistry 319-329             |       | 3      |
| Chemistry 473-483             |       | 6      |
| Chemistry 479-489             |       | 4      |
| 2 Distribution               |       | 9      |
| 3 Electives                  |       | 3      |
| Fourth Year
| Chemistry 430                 |       | 3      |
| Chemistry 439                 |       | 3      |
| Chemistry 406                 |       | 1      |
| Chemistry 400                 |       | 3      |
| Biochemistry and Cellular and Molecular Biology 401 |       | 4      |
| 4 Chemistry Electives         |       | 3      |
| 2 Distribution               |       | 9      |
| 3 Electives                  |       | 9      |
| Total 126-132                |       |        |

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

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

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

4 To be chosen from Chemistry 400, 401, 408, 420, 450, and 490.
BACHELOR OF SCIENCE • CHEMISTRY MAJOR
The Bachelor of Science degree is available to students who desire a more flexible program. Prerequisites to the major are Chemistry 120-130 or 128-138 and Mathematics 141-142 or 151-152. Corequisites to the major are Physics 221-222, 135-136, or 137-138.

The major consists of Chemistry 240, 310, 319, 350-360, 369, 471-481 or 473-483, 479 and 10 hours of additional work in chemistry numbered above 200 that includes at least one laboratory course or lecture/laboratory course; up to 4 hours of Biochemistry and Cellular and Molecular Biology 401-402 or Geology 460 may be applied to the 10-hour requirement.

For students planning careers in chemistry, the recommended courses (from the list above) are Mathematics 141-142, Physics 135-136 or 137-138, and Chemistry 473-483; although not required, certain additional courses are strongly suggested for students planning to become chemists: Mathematics 241 and Chemistry 230, 320, 329, and 406. Because professional chemists need a reading knowledge of foreign languages, intermediate level competency should be acquired in German, French, Russian or Japanese. Students who are undecided about their career goals should consult the head of the department at the earliest opportunity. Unlike the Bachelor of Science in Chemistry, the regular Bachelor of Science degree is not approved by the Committee on Professional Training of the American Chemical Society.

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

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

DEPARTMENT OF CLASSICS
http://web.utk.edu/~classics/
David W. Tandy, Head

Professors
Craig, G.P. (Lindsay Young Professor), PhD .......................... North Carolina
Martin, S.D. (Associate Vice Chancellor), PhD .......................... Michigan
Tandy, D.W. (Distinguished Professor of Humanities), PhD .......................... Yale

Associate Professor
Sutherland, E.H., PhD .................................................. California (Berkeley)

Assistant Professors
Graninger, C.D., PhD .................................................. Cornell
Skenar, R.J., PhD .................................................. Michigan
Van de Moortel, A., PhD .................................................. Bryn Mawr

Research Professors
Gesell, G.C., PhD .................................................. North Carolina
Langdon, M.K., PhD .................................................. Pennsylvania

Adjunct Faculty
Dessel, J.P., PhD .................................................. Arizona
Dzom, M., PhD .................................................. Toronto (Canada)
Fitzgerald, J.L., PhD .................................................. Chicago
Jones, D.W., PhD .................................................. Chicago
Kulikowski, M., PhD .................................................. Toronto (Canada)
Shepardson, C., PhD .................................................. Duke
Stiebert, J., PhD .................................................. Glasgow (UK)

The department’s programs are designed to allow students to understand the foundations of the western cultural tradition. This is done through a focus on the classical languages and literatures, archaeology, art, mythology and religion, political and social history. Through these studies, students develop skills in critical thinking, reading, writing and speaking. They also develop a sense of the ways in which both shared traditions and personal creativity inform one’s choices, and of the opportunities for good citizenship in a complex world.

CLASSICS MAJOR

CLASSICAL CIVILIZATION CONCENTRATION

The concentration in classical civilization consists of 27 hours. The required core of the major is Classics 201 plus any 9 hours from Classics 221-222, 232, 253. The remaining 15 hours may be from Classics 261-264, 251-252, any Classics course numbered 300 or above, History 366, or Philosophy 320. Students are encouraged to satisfy the foreign language requirement with Greek or Latin.

HONORS CLASSICAL CIVILIZATION CONCENTRATION

The honors classical civilization concentration consists of 29 hours. The required core of the concentration is Classics 201 plus 9 hours from the following – Classics 221-222, 232, 253. Fifteen hours must include Classics 251-252 or 261-264 with the remaining 9 hours from any Classics course numbered 300 or above, History 366, or Philosophy 320. The student must pass Classics 201 with a B+ or better and the final course in the intermediate Latin or Greek sequence (252 or 264) with a B+ or better. To graduate with honors, the student must maintain a GPA of at least 3.5 in classics courses and a minimum cumulative GPA of 3.0. The student must also present an honors thesis, for which 2 hours of independent study credit may be earned.

GREEK CONCENTRATION

The concentration in Greek consists of 27 hours including 18 hours of Greek language courses numbered above 200 plus 9 hours to be from any courses in the Classics Department (other than Classics 121-122, 150, 201, or 273).

HONORS GREEK CONCENTRATION

The honors Greek concentration consists of 29 hours. Eighteen hours of Greek language courses numbered above 200 are required, plus 9 hours from the following – any courses in the Classics Department (other than 121-122, 201, 273). The student must maintain a minimum GPA of 3.5 in Greek language courses and a minimum cumulative GPA of 3.0. In addition, of the 9 hours described above, six must be in courses numbered 300 or higher. The student must also present an honors thesis, for which 2 hours of independent study credit may be earned.

LATIN CONCENTRATION

The concentration in Latin consists of 27 hours including 18 hours of Latin language courses numbered above 200 plus 9 hours to be from any courses in the Classics Department (other than 111-112, 150, 201, or 273).

HONORS LATIN CONCENTRATION

The honors Latin concentration consists of 29 hours. Eighteen hours of Latin language courses numbered above 200 are required, plus 9 from the following – any courses in the Classics Department (other than 111-112, 150, 201, 273). The student must maintain a minimum GPA of 3.5 in Latin language courses and a minimum cumulative GPA of 3.0. In addition, of the 9 hours described above, 6 must be in courses numbered 300 or higher. The student must also present an honors thesis, for which 2 hours of independent study credit may be earned.
Placement Examination
Students who transfer to the University of Tennessee, Knoxville, from other colleges and students who enter with high school units in Latin should register for the courses in which they would normally be placed on the basis of such credits. During freshman orientation, a placement test will be given; and students will be advised if a change in registration is indicated by the results.

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

Minor in Classical Civilization
A minor in classical civilization consists of 18 hours including Classics 201 plus any 6 hours from Classics 221-222, 232, 253. The remaining 9 hours may be from Classics 261-264, 251-252, any Classics course numbered 300 or above, History 366, or Philosophy 320.

Minor in Greek
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, 436, 442.

Minor in Latin
The Latin minor consists of 18 hours including 12 hours of Latin language courses numbered above 200, and 6 hours from Classics 221-222, 436, 442.

COLLEGE SCHOLARS PROGRAM
Christopher P. Craig, Classics, Director

COLLEGE SCHOLARS MAJOR
College scholars is a major with selective admission. For details contact the director. All college 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.

DEPARTMENT OF COMPUTER SCIENCE
http://www.cs.utk.edu/

Michael W. Berry, Interim Head

Professors
Berry, M.W., PhD ........................................... Illinois
Dongarra, J.J., PhD ....................................... New Mexico
Gregor, J., PhD ............................................. Aalborg (Denmark)
Langston, M.A., PhD ..................................... Texas A&M
Poore, J.H., PhD ........................................... Georgia Tech
Thomason, M.G., PhD ................................... Duke
Vander Zanden, B.T., PhD ................................. Cornell
Ward, R.C., PhD ........................................... Virginia

Associate Professors
Beck, M., PhD ............................................. Cornell
MacLennan, B.J., PhD ................................... Purdue
Parker, L.E., PhD ......................................... Massachusetts Institute of Technology
Plank, J.S., PhD ............................................ Princeton
Vose, M.D., PhD ........................................... Texas

Assistant Professors
Huang, J., PhD ............................................. Ohio State
Straight, D.W., PhD ..................................... Texas

Lecturer
Mayo, J.W., MS ............................................ Tennessee

The computer has achieved a position of great importance in modern life. It is a vital tool in business, science, communications, and health care. The Department of Computer Science offers education in the principles of computer science and training in the technology of computers. The program’s emphasis is divided among hardware, software, and theory, giving students a wide view of the discipline and enabling them to discover their areas of interest. Graduates of the program are prepared to help others make effective use of computers in their daily lives.

Progression Standards
Undergraduates are required to apply to the Department of Computer Science for progression into the computer science major. Progression is based on demonstrated academic ability. The overall record will be evaluated for quality and seriousness of purpose.

The requirements are submitted to change. Current requirements can be determined by consulting an advisor in the Undergraduate Programs Office or by contacting the Computer Science Department. Students are expected to apply during the semester in which they are completing the last of Computer Science 140, 160, and Mathematics 141.

Students who have met the following criteria have been approved for progression into the major.

• Completed Computer Science 140, 160, and Mathematics 141 at the University of Tennessee, Knoxville, with a GPA of 3.0 or better in these three courses and a grade of C or better in each course. Transfer students’ course work will be evaluated individually.

• GPA of 2.5 or better in all computer science courses taken at the University of Tennessee, Knoxville, that apply to the major.

• Not been disciplined for academic dishonesty in a computer science course or for abuse of university computing privileges.

• No excessive absences, withdrawals, or incompletes.

Students who meet the criteria must fill out an application available in the Computer Science Department. A student who does not meet progression requirements will not be allowed to take any upper-division computer science course that can be applied to the major.

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

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

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

Majors in computer science should prepare their programs in consultation with an advisor in the Computer Science Department. A student is not permitted to declare a computer science major until the department's progression requirements have been met.

The major in computer science consists of 39 hours. Prerequisites to the major include Computer Science 102, 140, 160, and Mathematics 141, 142, 241, 251, with a grade of C or better in each course; and a two-semester laboratory science course (Physics 135-136 or biology or chemistry). The major consists of:

- Computer Science 302, 311, 360, 365, 380.
- One of the following – Computer Science 340, 370, Mathematics 371.
- Mathematics 300.
- Either English 355 or English 360.
- Either an additional 15 hours of upper-division computer science or an additional 12 hours of upper-division computer science and either mathematics 231 or 323.

Minor in Computer Science

The prerequisites to an undergraduate minor are Computer Science 140, 160, and Mathematics 141 with a GPA of 3.0 or better in the three courses. The minor consists of 15 hours of upper-division computer science courses. Mathematics 371 may be substituted for three of those hours. A grade of C or better is required in all computer science courses applied to the minor, and a GPA not less than 2.5 must be maintained in these courses.

DEPARTMENT OF EARTH AND PLANETARY SCIENCES

http://geoweb.gg.utk.edu/
Claudia I. Mora, Head

Professors
Broadhead, T.W., PhD ............................................. Iowa
Dunne, W.M. (Associate Dean), PhD ......................... Bristol
Hatcher, R.T. (UT Knoxville/ORNL Distinguished Scientist), PhD ............ Tennessee
Labotka, T.C., PhD .................................................. California Institute of Technology
Mckay, L.D., PhD .................................................. Waterloo
McKinney, M.L., PhD .............................................. Yale
McSween, H.Y. (Distinguished Professor of Science), PhD ................. Harvard
Misra, K.C., PhD .................................................. Western Ontario (Canada)
Mora, C.I. (Carden Professor), PhD ................................. Wisconsin
Taylor, L.A., PhD .................................................. Lehigh

Associate Professors
Clark, G.M., PhD .................................................. Penn State
Perfect, E., PhD .................................................. Cornell

Assistant Professors
Baker, G.S., PhD .................................................. Kansas
Fedo, C.M., PhD .................................................. Virginia Tech
Kah, L.C., PhD .................................................. Harvard
Moersch, J.E., PhD .................................................. Cornell

Lecturer
Sumrell, C.D., PhD .................................................. Texas

The Department of Earth and Planetary Sciences emphasizes study of the Earth and of planetary systems at all scales of observation. Earth and Planetary Sciences strives to interpret the physical, chemical and biological processes operating over 4.6 billion years of Earth history, as well as those processes involved in the formation of terrestrial planetary bodies within our solar system.

GEOLOGY MAJOR

Progression to the Major

To progress into the major, students must take two courses from Geology 101-102-103, as well as Chemistry 120-130. Chemistry 130 may be taken concurrently with 300-level geology courses.

Corequisite Requirements

Corequisite requirements include Mathematics 141-142, and three courses from Biology 130-140 and Physics 135-136.

Major Requirements

Upper-division requirements include Geology 310-320-330-340-370-380 (24 hours), a minimum of 5 hours of an approved field camp, and 9 elective hours at the 400-level or above. Students are encouraged to participate in undergraduate research (Geology 493). A maximum of 3 hours of Geology 493 may count toward the major.

HONORS CONCENTRATION

Students with five completed upper-division geology courses and a cumulative GPA of at least 3.0 are encouraged to pursue an honors concentration, which includes completion of 3 hours of Geology 491, 492, or 493 beyond the normal major requirements, approval of a written thesis, and oral presentation of the thesis results. A GPA of at least 3.0 must be maintained throughout matriculation. Interested students should consult their academic advisor for details.

Minor in Geology

A minor in geology consists of two courses from Geology 101-102-103, and an additional 16 hours at the 200-level or above. A maximum of 6 hours at the 200-level and 3 hours of Geology 493 may be counted toward the minor.

DEPARTMENT OF ECOLOGY AND EVOLUTIONARY BIOLOGY

http://eeb.bio.utk.edu/
Christine R.B. Boake, Head
Arthur C. Echternacht, Associate Head

Professors
Boake, C.R.B., PhD .............................................. Cornell
Burghardt, G.M., PhD ............................................ Chicago
Echternacht, A.C., PhD ........................................... Kansas
Etner, D.A., PhD .................................................. Minnesota
Gavrilets, S., PhD .................................................. Moscow State
Greenberg, N.B., PhD ............................................. Rutgers
Gross, L.J., PhD .................................................. Cornell
Harris, I.I., W.R., PhD ............................................ Tennessee
Hallam, T.G., PhD .................................................. Missouri
Hughes, K., PhD .................................................. Utah
McCracken, G.R., PhD .......................................... Indiana
Petersen, R. (Distinguished Professor), PhD ............................... Columbia
Riechert, S.E. (Distinguished Service Professor), PhD ................. Wisconsin
Saylor, G.S., PhD .................................................. Idaho
Schwing, E., PhD .................................................. Cornell
Schultz, E., PhD .................................................. Indiana
Simberloff, D. (Gore Hunger Chair of Excellence), PhD ............ Harvard

Associate Professors
Drake, J.A., PhD .................................................. Purdue
Small, R., PhD .................................................. Iowa State
Smith, D., PhD .................................................. Tennessee
Welin, J., PhD .................................................. Arizona
Wofford, B.E. (Curator of Herbarium), PhD ............................... Tennessee

Assistant Professors
Butler, M., PhD .................................................. Washington (St. Louis)
Fitzpatrick, B.M., PhD .......................................... Davis
Fordyce, J.A., PhD .................................................. Davis
Gilchrist, M.A., PhD .............................................. Duke
Near, T.J., PhD .................................................. Illinois
Sanderson, N.J., PhD .............................................. Stanford
Williams, J., PhD .................................................. Georgia
Ecology and evolutionary biology deals with the interactions of organisms with one another and with their physical environment, and with the processes through which these interactions have developed and continue to change through time. The curriculum will provide students with an understanding of ecological interactions and evolutionary processes that are fundamental to the operation of the natural world. The scope of this program ranges from the molecular level, to individual organisms, to populations, communities, and ecosystems. The program offers career opportunities in academia, industry, governmental and non-governmental agencies that are concerned with the importance and integrity of natural systems, and in education at all levels.

Students wishing to emphasize study in this area elect to major in biological sciences with a concentration in ecology and evolutionary biology. See the description of the major and concentration under Division of Biology for requirements.

**DEPARTMENT OF ECONOMICS**

*See faculty listing in the College of Business Administration.*

The program in economics combines a broad liberal education with the rigorous study of important topics such as markets, employment, economic growth, business organization, wealth, inflation, health, environment, taxes, and the international economy.

Courses offered in the Department of Economics, housed in the College of Business Administration, provide an opportunity for a major or minor in economics in the College of Arts and Sciences.

In addition, certification to teach economics in secondary schools is available. Students with such interest should consult the College of Education, Health, and Human Sciences as early in their program as possible to determine the appropriate requirements.

**ECONOMICS MAJOR**

Prerequisites to the major are Economics 201 and Statistics 201, or their equivalent Honors courses (Economics 207 and/or Statistics 207).

The major consists of 27 upper-division hours in economics, and must include 311, 313, 499 and at least 9 hours in addition to 499 at the 400-level. Majors should satisfy the Mathematics and Quantitative Reasoning requirement with either Mathematics 125 or 141, and Statistics 201 (207). Students planning to pursue graduate study in economics should elect Mathematics 141, and are encouraged to take Mathematics 142 and 251 and Economics 381 and 482 as well.

**HONORS CONCENTRATION**

Admission is limited to students with an overall GPA of 3.2 who have earned a B or better in Economics 311, 313, and two other upper-division economics courses. Requirements are 311, 313, 499, and 18 additional upper-division hours in economics, with at least 9 hours in addition to 498 at the 400-level. Students will develop an undergraduate thesis topic with the guidance of their faculty advisor and complete the thesis while registered for Economics 498. Interested students should contact their advisor concerning details of participation.

**Minor in Economics**

A minor consists of Economics 201 (or 207) and 12 additional hours at the upper-division level. Upper-division economics courses must include 311, 313, and 3 or more hours at the 400-level.

**Research Professors**

Cooper, L.W., PhD ....................................................... Alaska
Grebmeier, J.M., PhD ..................................................... Alaska

**Research Assistant Professor**

Classen, A.T., PhD ....................................................... Northern Arizona

**Associate Professors**

Palmer, H.M., MA ......................................................... Tennessee
Newburn, H.F., PhD ..................................................... Illinois (Carbondale)
Meredith, E.G., MA ....................................................... Tennessee
Melton-Summer, S.E., PhD ............................................. Tennessee
McKinstrey, D.K., PhD ................................................... Tennessee
McDowell, M.R., MA ..................................................... Tennessee
Mckinstry, D.K., PhD ..................................................... Tennessee
Mellin, H.E., PhD ......................................................... Illinois (Carbondale)
Palmer, H.M., MA ......................................................... Tennessee
Pearson, F.M., MA ......................................................... Tennessee
Peaver, J.L., MA ......................................................... Tennessee
Pelletier, E.Y., PhD ....................................................... Toronto (Canada)

**Professors**

Atwill, J.M., PhD ......................................................... Purdue
Cox, D.R. (Associate Dean), PhD ....................................... Missouri
Dumas, B.K., PhD ......................................................... Washington
Ensor, A.R., PhD ......................................................... Indiana
Ganer, Jr., S.B. (Young Professor), PhD ............................... Princeton
Goslee, D.F., PhD ......................................................... Yale
Goslee, N.M. (Alumni Distinguished and Young Professor), PhD ......................................................... Yale
Helfman, T.J.A. (Curry Professor), PhD ................................ Cambridge
Kallet, M. (John C. Hodges Teaching Professor), PhD ................................. Rutgers
Katz, D.L., PhD ......................................................... Texas
Lek, I., PhD ..................................................... Illinois
Lui, R.L., PhD ......................................................... Yale
Lofaro, M.A., PhD ......................................................... Maryland
Luprecht, M.A., PhD ....................................................... Florida
Maland, C., PhD ......................................................... Michigan
Papke, M.E. (Special Assistant to the Chancellor and Associate Dean of Graduate Studies), PhD ........................................ McGill (Canada)
Smith, A.E., PhD ......................................................... Houston
Stillman, R.E., PhD ....................................................... Pennsylvania
Wier, A., MFA ......................................................... Bowling Green
Zomchick, J.P., PhD ....................................................... Columbia

**Assistant Professors**

Abraham, M., PhD ......................................................... Purdue
Billo, A.C., PhD ......................................................... Princeton
Coles, D.D., PhD ......................................................... Stanford
Dzorn, M.C., PhD ......................................................... Toronto (Canada)
Fishman, J.M., PhD ....................................................... Stanford
Hardig, M.R., PhD ......................................................... Vanderbilt
Ikard, D., PhD ......................................................... Wisconsin
Schoenbach, L.M., PhD ................................................... Virginia
Thaggard, M., PhD ......................................................... Illinois

**Lecturers**

Aaj, M.P., PhD ......................................................... Alabama
Benn, J.I., PhD ......................................................... Iowa
Burton, J.C., PhD ....................................................... State University of New York (Stony Brook)
Capps, S.E., PhD ......................................................... Tennessee
Dziuban, E.K., MA ......................................................... Tennessee
\( ^{2} \) Hardig, M.R., PhD ......................................................... Tennessee
Haddox, T.F., PhD ......................................................... Florida
Harris, S.C., PhD ......................................................... Tennessee
Havens, K.L., PhD ......................................................... Tennessee
Hewitson, J.K., PhD ....................................................... Canada
Hussein, A., PhD ......................................................... Tennessee
Knox, L., MA ................................................................. Indiana
Larsen, W.B., PhD ......................................................... Tennessee
Mahee, F.P., PhD ......................................................... Southern California
McCue, K., MA ......................................................... Tennessee
McDowell, M.R., MA ..................................................... Tennessee
Mckinstry, D.K., PhD ................................................... Tennessee
Melton-Summer, S.E., PhD ............................................. Tennessee
Mellin, H.E., PhD ......................................................... Illinois (Carbondale)
Palmer, H.M., MA ......................................................... Tennessee
Pearson, F.M., MA ......................................................... Tennessee
Peaver, J.L., MA ......................................................... Tennessee
Pelletier, E.Y., PhD ....................................................... Toronto (Canada)
Preston, N.H., PhD ......................................................... Tennessee
Renfroe, M.M., PhD ..................................................... Tennessee
Rougeau-Vandervord, R.B., PhD ...................................... Louisiana State
Senasi, D.M., PhD ......................................................... Alabama

**Research Professors**

Grebmeier, J.M., PhD ..................................................... Alaska

**Associate Professors**

Palmer, H.M., MA ......................................................... Tennessee
Newburn, H.F., PhD ..................................................... Illinois (Carbondale)
Meredith, E.G., MA ....................................................... Tennessee
Melton-Summer, S.E., PhD ............................................. Tennessee
Mellin, H.E., PhD ......................................................... Illinois (Carbondale)
Palmer, H.M., MA ......................................................... Tennessee
Pearson, F.M., MA ......................................................... Tennessee
Peaver, J.L., MA ......................................................... Tennessee
Pelletier, E.Y., PhD ....................................................... Toronto (Canada)
Preston, N.H., PhD ......................................................... Tennessee
Renfroe, M.M., PhD ..................................................... Tennessee
Rougeau-Vandervord, R.B., PhD ...................................... Louisiana State
Senasi, D.M., PhD ......................................................... Alabama

**Assistants**

Reiff, M.J., PhD ......................................................... Kansas
Knight, M., MFA ......................................................... Virginia
Reiff, M.J., PhD ......................................................... Kansas

**Professors**

Atwill, J.M., PhD ......................................................... Purdue
Cox, D.R. (Associate Dean), PhD ....................................... Missouri
Dumas, B.K., PhD ......................................................... Washington
Ensor, A.R., PhD ......................................................... Indiana
Ganer, Jr., S.B. (Young Professor), PhD ............................... Princeton
Goslee, D.F., PhD ......................................................... Yale
Goslee, N.M. (Alumni Distinguished and Young Professor), PhD ......................................................... Yale
Helfman, T.J.A. (Curry Professor), PhD ................................ Cambridge
Kallet, M. (John C. Hodges Teaching Professor), PhD ................................. Rutgers
Katz, D.L., PhD ......................................................... Texas
Lek, I., PhD ..................................................... Illinois
Lui, R.L., PhD ......................................................... Yale
Lofaro, M.A., PhD ......................................................... Maryland
Luprecht, M.A., PhD ....................................................... Florida
Maland, C., PhD ......................................................... Michigan
Papke, M.E. (Special Assistant to the Chancellor and Associate Dean of Graduate Studies), PhD ........................................ McGill (Canada)
Smith, A.E., PhD ......................................................... Houston
Stillman, R.E., PhD ....................................................... Pennsylvania
Wier, A., MFA ......................................................... Bowling Green
Zomchick, J.P., PhD ....................................................... Columbia


ENGLISH MAJOR

The English major consists of ten courses at the 300-400 level in one of the following concentrations.

Prerequisites and Corequisites

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

CREATIVE WRITING CONCENTRATION

The concentration requires a two-course sequence in creative writing; three other writing courses; four courses in literature, two of which must be before 1900, and at least one of those before 1800; one course in language, theory, cultural, ethnic, or gender studies; one or more courses from any of the department's offerings, including criticism, film, folklore, language, literature, rhetoric, and writing (necessary only if student has overlapped courses in the two preceding categories). Courses may count in more than one category.

LITERATURE CONCENTRATION

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

RHETORIC AND WRITING CONCENTRATION

The concentration requires a three-course package in rhetoric and writing; one other course in rhetoric or writing; four courses in literature, two of which must be before 1900, and at least one of those before 1800; one course in language, rhetoric, and writing. Courses may count in more than one category.

TECHNICAL COMMUNICATIONS CONCENTRATION

The concentration consists of a three-course package in technical communications; one other course in rhetoric or writing; four courses in literature, two of which must be before 1900, and at least one of those before 1800; one course in language, rhetoric, and writing. Courses may count in more than one category.

INDIVIDUALIZED PROGRAM CONCENTRATION

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

HONORS CONCENTRATION

For students who qualify, the English Department offers specially designed courses at all levels. The first-year and second-year honors courses are enriched versions of regular sections in composition, and in American and British literatures. To be given honors in English on the transcript, a student must have achieved a 3.0 or better GPA, a 3.5 or better grade point in English courses, and grades of A or B in English 398 and 498.

Minor in English

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

An English minor with technical communication emphasis consists of at least 15 semester hours of English courses chosen from the following: at least three courses in technical communication (chosen from 360, 460, 462, 466, or any special topics course being offered in technical communication); one course in expository writing, argumentative writing, language, rhetoric, or another technical communication course (chosen from 355, 360, 371, 372, 455, 460, 462, 466, 470, 471, 472, 484, 485, 495, 496); and one other 300- or 400-level English course.

DEPARTMENT OF GEOGRAPHY

http://web.utk.edu/~utkgeog/

Bruce A. Ralston, Head

Professors

Aiken, C.S., PhD .................................................. Georgia
Bell, T.L., PhD ..................................................... Iowa
Foresta, R.A., PhD ................................................. Rutgers
Harden, C.P., PhD ................................................. Colorado
Horn, S.P., PhD .................................................... California (Berkeley)
Pulsipher, L.M., PhD .............................................. Southern Illinois
Ralston, B.A., PhD ................................................ Northwestern
Rehder, J.B., PhD ................................................ Louisiana State
Shaw, S.L., PhD ..................................................... Ohio State

Associate Professor

Grissino-Mayer, H., PhD ........................................ Arizona
Orvis, K., PhD ...................................................... California (Berkeley)

Assistant Professors

Drever, A., PhD .................................................... California (Los Angeles)

Adjunct Faculty

Gripspover, M.M., PhD .......................................... Tennessee
Liu, C., PhD ........................................................... Tennessee
McKeown, R., PhD ................................................ Oregon
Tankersley, R.D., PhD ............................................ Tennessee
Zanetta, M.C., PhD ................................................ Ohio State

The Department of Geography provides a comprehensive program that reflects the discipline’s three main areas: human geography, physical geography, and spatial analysis. The department’s courses allow students to explore the linkages between human activities and natural systems. Students taking geography courses should develop factual knowledge, critical thinking, and
analytic skills. Training in geography allows students to know where things are located, why they are located where they are, how and why places differ, how human activity shapes and is shaped by the natural environment, and how to analyze human-environment interactions.

**GEOGRAPHY MAJOR**

Geography 131 and 132, and 101 or 102, are prerequisites to the major, which consists of 27 hours as follows: Geography 310 and 499; either 320, 421, or 423; either 340 or 351; one course from among 410, 411, 412, 413 or 415; one course from among 361, 363, 365, 371, 373, 375, or 379; and 9 additional credits, at least 6 of which must be taken at the 400 level. No more than 3 hours of Geography 490 may be counted toward the major.

Students who enter the major with more than 60 hours of credit, and who have completed a laboratory science sequence other than geography, may petition the department to substitute certain upper-division physical geography courses for 131 and/or 132. Students who enter the major with more than 60 hours of credit, and who have met the social science divisional requirements in departments other than geography, may petition the department to substitute certain upper-division human geography courses for 101 or 102.

**HONORS CONCENTRATION**

Students who have an overall GPA of 3.2 may elect to participate in an enrichment program that involves the successful completion of Geography 497 and 498 (Honors: Senior Thesis) under the direction of a faculty mentor. An approved written copy of the thesis must be submitted to the Department of Geography. Interested students should consult their advisor for details about participation.

**Minor in Geography**

The minor in geography consists of 15 hours of geography courses at the 300 level or above. Geography 490, 491, 492, 493 may not be counted toward the minor without departmental permission.

**DEPARTMENT OF HISTORY**

http://web.utk.edu/~history/

**Professors**

Ash, S.V., PhD ............................... Tennessee
Bohostedt, J., PhD .......................... Harvard
Brummett, P., PhD .......................... Chicago
Crabtree, L. (Chancellor), PhD ........... Minnesota
Diacon, T.A., PhD .......................... Wisconsin
Feller, D., PhD ............................... Wisconsin
Norrell, R.J. (Bernadotte Schmitt Professor), PhD .......... Virginia

**Associate Professors**

Appier, J., PhD ............................ California (Riverside)
Bast, R.J., PhD ............................. Arizona
Burman, T.E., PhD ........................ Toronto (Canada)
Dessel, J.P., PhD ........................... Arizona
Fleming, C.G., PhD ........................ Duke
Freeberg, E., PhD ........................ Emory
Glover, L., PhD ............................. Kentucky
Higgs, C.A., PhD ........................... Yale
Kulikowski, M., PhD ........................ Toronto (Canada)
Lulievicz, V.G., PhD ........................ Pennsylvania
Piehler, G.K., PhD ........................ Rutgers

**Assistant Professors**

DeWeerdt, H., PhD .......................... Harvard
Liu, L., PhD ................................. California (San Diego)
Mclntosh, J.L., PhD ........................ Johns Hopkins
Phillips, D., PhD ............................ Harvard
Sacco, L., PhD ............................... Southern California
Tomkins, D., PhD ............................ Columbia
White, G., PhD .............................. Temple

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

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

**HISTORY MAJOR**

Majors in history should prepare their programs in consultation with a departmental faculty advisor. A student may not declare a history major until he/she has completed both semesters, with a grade of C+ or better in each course, of a survey chosen from 221-222, 227-228, 241-242, 247-248, 261-262 or any two one-semester courses from any of these sequences. AP (with a score of 4 or 5) or transfer credit is acceptable to fulfill this requirement. History 241-242 (or honors equivalents) or 261-262 are prerequisites to a major which consists of 30 hours, including:

- 6 hours of History 221-222 (or the honors equivalent).
- 24 upper-division hours, including one course in European history; one course in United States history; two courses in the history of Latin America, Asia, or Africa, at least one of which must be in Asia or Africa; and one additional course dealing predominantly with a period prior to 1750.

**HONORS CONCENTRATION**

The Department of History offers honors sections of the western civilization and United States history survey courses. Some entering freshmen are invited to participate; other interested students may apply. These survey courses are open to non-majors. A grade of C+ or less in any part of the freshman-sophomore honors sequence will render the student ineligible for further honors work in history.

The honors concentration requires successful completion of 307 and a senior thesis (407-408) with a grade of B or above. The honors concentration consists of 33 hours, including 30 hours as outlined in the Bachelor of Arts major above, plus 307. All juniors who are declared history majors with an overall GPA of at least 3.0 are invited to join the Junior-Senior Honors Program. Students interested in honors work at any level should consult the department’s honors coordinator.

**Minor in History**

History 241-242 or 261-262 (or honors equivalents) are prerequisites to a minor which consists of 15 hours of courses numbered 200 or above, including at least 6 hours in United States history and 9 upper-division hours.

**INTERDISCIPLINARY PROGRAMS**

Don Richard Cox, Associate Dean, College of Arts and Sciences, Director

In keeping with the philosophy that integration of knowledge is as important as proficiency in a given field, the College of Arts and Sciences has combined the resources of several departments to offer a series of interdisciplinary majors and minors. These programs are Africana studies, American studies, Asian studies, cinema studies, comparative literature, environmental studies, global studies, Judaic studies, Latin American studies, legal studies, linguistics, medieval studies, and women’s studies. See individual program descriptions below for the concentration and/ or minor requirements.
INTERDISCIPLINARY PROGRAMS MAJOR
• AFRICANA STUDIES CONCENTRATION
Winnie Reed, Sociology, Chair

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

Minor in Africana Studies

Africana 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 Africana Studies 492 and 493 combined can be applied to a minor. The minor must include courses from at least two other departments which cross-list courses with Africana studies in addition to the Africana studies core course offerings.

INTERDISCIPLINARY PROGRAMS MAJOR
• AMERICAN STUDIES CONCENTRATION
Michael Fitzgerald, Political Science, Chair

English 231 and either 232 or 233 are prerequisites to a concentration in American studies which consists of 27 upper-division hours including American Studies 310; at least two approved American history courses; and 6 hours of approved courses chosen from the following disciplines: anthropology, economics, political science, or sociology. Courses in the concentration will be chosen in consultation with an American studies advisor, from a list approved by the program, in such a way that at least three courses help the student achieve a focus within the field. One course in the student’s curriculum must specifically focus upon one or more American ethnic minority cultures. An additional 3 to 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.

Minor in American Studies

The American studies minor consists of at least 15 hours of coursework chosen from the program’s list of electives, including American Studies 310 and 12 additional hours from at least two different disciplines.

INTERDISCIPLINARY PROGRAMS MAJOR
• ASIAN STUDIES CONCENTRATION
Yang Zhong, Political Science, Chair

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

Minor in Asian Studies

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

CINEMA STUDIES
Christine Holmlund, Modern Foreign Languages and Literatures, Chair

Minor in Cinema Studies

The cinema studies minor consists of 15 hours, including Cinema Studies 281; 3 hours chosen from Cinema Studies 235, 236, or Journalism and Electronic Media 336; and 9 additional hours from any courses in cinema studies, courses cross-listed with cinema studies, or from the following list of approved courses: Journalism and Electronic Media 275, 336, 436. It is strongly recommended that Cinema Studies 281 be taken before any other courses in the minor.

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

INTERDISCIPLINARY PROGRAMS MAJOR
• COMPARATIVE LITERATURE CONCENTRATION
Carolyn R. Hodges, Modern Foreign Languages and Literatures, Chair

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 concentration in comparative literature consists of 27 hours including Comparative Literature 202 and 401-402, and 9 hours of literature in a foreign language in courses numbered 300 or above. The remaining 9 hours should include literature courses, either in English or in a foreign language, numbered 300 or above, from at least two of the following departments: Classics, English, Modern Foreign Languages and Literatures, and Religious Studies. Certain courses in philosophy, theatre, and interdisciplinary programs may be substituted with the approval of the chairperson of the comparative literature program.

Minor in Comparative Literature

A minor in comparative literature consists of 18 hours including Comparative Literature 202 and either Comparative Literature 401 or 402, 6 hours of literature in a foreign language in courses numbered 300 or above, and 6 hours of literature courses numbered 300 or above in a different department. These 6 hours may be either in English or in a foreign language and should be chosen from the following departments: English, Modern Foreign Languages and Literatures, and Religious Studies. Certain courses in philosophy, theatre, and interdisciplinary programs may be substituted with the approval of the chairperson of the comparative literature program. Minors in comparative literature are strongly encouraged to continue study of a foreign language beyond the minimum requirement.
INTERDISCIPLINARY PROGRAMS MAJOR
• ENVIRONMENTAL STUDIES CONCENTRATION
Michael McKinney, Earth and Planetary Sciences, Chair

The concentration in environmental studies provides sound scientific, socio-economic, and philosophical background for understanding the earth’s environment with an opportunity to minor in one of the many environmentally related curricula offered by the various colleges within the university.

Prerequisites to the concentration are Biology 130-140 or 111-112; Chemistry 120-130; Geology 101; Geography 131; Mathematics 123-125 or 141-142 or 151-152; Economics 201; and Biology 250.

The concentration consists of a core and a specialty.

Core
(a) 15 hours from Geography 345; Sociology 360 or 464 or 465 (one only); Philosophy 245; Economics 362 or Agricultural Economics 470 (one only); Agriculture and Natural Resources 333; Journalism and Electronic Media 451; Geology 490.
(b) 3 hours from Geology 455 or Ecology and Evolutionary Biology 484.
(c) 3 hours from Geography 334, 433, 434, 436; Environmental and Soil Sciences 462.

Specialty
Twelve hours at the 300 level or above in one of the following departments: Biochemistry, Cellular and Molecular Biology; Chemistry; Earth and Planetary Sciences; Ecology and Evolutionary Biology; Economics; Environmental and Soil Sciences; Forestry, Wildlife and Fisheries; Geography; Plant Sciences; Political Science; or Sociology.

INTERDISCIPLINARY PROGRAMS MAJOR
• GLOBAL STUDIES CONCENTRATION
Jon Shefner, Sociology, Chair

The global studies concentration focuses on understanding connections between different parts of the world. Globalization, or the trans-national exchange of investments, commodities, people, politics, technologies, and cultures, is both a characteristic of the contemporary world and the culmination of large-scale, long-term social change. Although globalization, at times, seems dominated by new economic and political formations more powerful than the traditional nation-state, it has also mobilized new expressions of local and transnational discontent and resistance.

The University of Tennessee, Knoxville, global studies curriculum helps students understand the implications of global change, allowing the university community to confront what is occurring in our immediate locale by examining what is going on elsewhere. Bringing together faculty and students from diverse perspectives creates an interdisciplinary understanding of the disruption and integration resulting from changing configurations of nations, global processes, and identities.

Global Studies 250 is a prerequisite to the concentration which requires 29-30 credit hours in the form of ten courses. No course may be counted toward more than one of the following categories. No more than 3 credit hours may be taken under the 300 level. Courses are to be distributed as follows.

A. Seven core courses from the following list. A student may choose to concentrate in either global society and culture or global politics and economy. The requirements for either track will be five courses in the primary track and two courses in the secondary track.

Track I – Global Society and Culture
Anthropology 315, History 421; Comparative Literature 202; English 331, 454; Geography 345; Musicology 290; and Religious Studies 302, 333.

Track II – Global Politics and Economy
Agricultural Economics 420; Forestry, Wildlife, and Fisheries 351; Geography 374; Political Science 350, 365, 470, 471; Retail and Consumer Sciences 421; and Sociology 442, 446.

B. Any two courses from the following approved list of regional studies courses.
Anthropology 313, 316, 319; Asian Studies 471; Geography 373; Political Science 452, 456; Religious Studies 332, 373; Spanish 331, 401, 465.

C. One upper-division course from the following list.
Anthropology 410, 431; Geography 320, 340, 415; Philosophy 360; Political Science 401; Religious Studies 300; Sociology 331; any upper-division modern foreign language course taught in the language of study.

Note: Any courses taken to fulfill a core requirement cannot be used to fulfill a regional studies or methods/foreign language requirement.

Minor in Global Studies
Global Studies 250 is a prerequisite to the minor in global studies which requires 17-18 credit hours distributed in the following manner.
Six courses, including two courses from Track I (global society and culture) and two courses from Track II (global politics and economy). The remaining two courses may be taken from any of the above lists.

INTERDISCIPLINARY PROGRAMS MAJOR
• JUDAIC STUDIES CONCENTRATION
Gilya Gerda Schmidt, Religious Studies, Chair

The concentration in Judaic studies offers a course of study that treats Judaism as a historically evolving and culturally specific enterprise. The concentration explores Jewish culture, religion and heritage through literature, philosophy and history.

A multi-disciplinary combination of courses permits critical reflection about topics and issues in a world civilization and cross-cultural context.

The concentration consists of at least 27 hours at the 300 level or above, distributed as follows.
• Religious Studies 381, History 383.
• 12 hours from Religious Studies 311, 312, 320, 385, 386, 405; History 370, 384.
• 9 hours selected from Art History 425, 431, 475; German 350; History 369, 395, 484; Philosophy 322.

Students should contact the program advisor early in planning a Judaic studies concentration.

Minor in Judaic Studies
The Judaic studies minor consists of Religious Studies 381, History 383, and 9 hours selected from the Judaic studies concentration.

INTERDISCIPLINARY PROGRAMS MAJOR
• LANGUAGE AND WORLD BUSINESS – CHINESE, JAPANESE, OR PORTUGUESE CONCENTRATION
Gregory B. Kaplan, Modern Foreign Languages and Literatures, Chair

For a complete list of requirements, see Department of Modern Foreign Languages and Literatures.
INTERDISCIPLINARY PROGRAMS MAJOR
• LATIN AMERICAN STUDIES
CONCENTRATION
Michael Handelsman, Modern Foreign Languages and Literatures, Chair

The concentration consists of two optional tracks: general studies or Brazilian studies.

The general studies track requires 27 upper-division hours taken from courses offered by at least three different academic departments. Three hours are to be selected from either Spanish 331, 333, 334 or Portuguese 315, 316. The remaining hours are to be chosen from Anthropology 313, 316, 319; Cinema Studies 465; History 360, 361, 460, 461, 462, 463, 475; Geography 373; Political Science 456; Portuguese 431, 432; Spanish 401, 402, 479.

The Brazilian studies track requires 27 upper-division hours offered by at least three different academic departments. Of these hours, a minimum of 6 hours must be taken as part of UT Knoxville’s summer study program in Fortaleza, Brazil (Portuguese 491 or 493). Nine hours must come from University of Tennessee, Knoxville, courses that focus on Brazil (History 460; Portuguese 315, 316, 431, 432). The remaining 12 hours are to be selected from courses listed above as part of the general studies track.

Minor in Latin American Studies
The minor consists of 18 hours taken from courses offered by at least three different academic departments; 3 of the hours are to be selected from either Spanish 331, 333, 334, or Portuguese 315, 316; the remaining 15 hours are to be selected from the courses listed in either track of the concentration.

INTERDISCIPLINARY PROGRAMS MAJOR
• LEGAL STUDIES CONCENTRATION
John Scheb, Political Science, Chair

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

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

Students should contact program advisors early in planning a legal studies concentration. Other law-related courses consistent with the purposes and objectives of the major may be approved through consultation with the Chair of the Legal Studies Committee.

The concentration consists of 27 hours, including either Political Science 330 or Sociology 455 and 24 hours of upper-division courses distributed among five categories.

Analysis
3 hours from English 496, Political Science 401, Sociology 331.
INTERDISCIPLINARY PROGRAMS MAJOR
• WOMEN’S STUDIES CONCENTRATION

Cheryl Brown Travis, Psychology, Chair

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

The 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 3 hours of Independent Study (493), and at least one course from each of the three major areas: Women’s Heritage (383, 432, 453, 466, 483), Contemporary Issues (320, 340, 360, 375, 382, 410, 425, 434, 476), and Literature and the Arts (330, 332, 422, 433, 469).

Because its content varies, 400 may be included in any of these areas. Students are encouraged to take at least 9 hours in one of these areas.

Minor in Women’s Studies

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.

DEPARTMENT OF MATHEMATICS

http://www.math.utk.edu/
Robert J. Daverman, Interim Head

Professors
Alexiades, V., PhD ........................................... Delaware
Andersen, D.F., PhD ........................................... Chicago
Conway, J.B., PhD ............................................. Louisiana State
Daverman, R.J., PhD .......................................... Wisconsin
Dobbs, D.E., PhD ............................................. Cornell
Dyjak, J., PhD .................................................. Warsaw (Poland)
Feng, X., PhD ................................................... Purdue
Gavriltos, S., PhD .............................................. Moscow State
Gross, L., PhD .................................................. Cornell
Hinton, D.B., PhD ............................................. Tennessee
Jordan, G.S., PhD ............................................. Wisconsin
Karakashian, O., PhD ....................................... Harvard
Lenhart, S., PhD ............................................... Kentucky
Mulay, S., PhD .................................................. Purdue
Piault, C.P., PhD .............................................. Maryland
Rajput, B.S., PhD ............................................. Illinois
Richter, S., PhD ............................................... Michigan
Rosinski, J., PhD ............................................. Wroclaw (Poland)
Schaefer, P.W., PhD .......................................... Maryland
Simpson, H., PhD ............................................. California Institute of Technology
Sonin, R.P., PhD ................................................. Oregon State
Stephenson, K.R., PhD ...................................... Wisconsin
Sundberg, C., PhD .......................................... Wisconsin
Thistlethwaite, M., PhD ..................................... Manchester (UK)
Wade, W.R., PhD ............................................. California (Riverside)
Wagner, G.G., PhD .......................................... Duke
Xiong, J., PhD .................................................. North Carolina

Associate Professors
Collins, C., PhD .............................................. Minnesota
Freire, A., PhD ............................................... Princeton
Schulze, T., PhD .............................................. Northwestern
Todorova, G.H., PhD ....................................... Moscow State
Tzemias, P., PhD ............................................. California (Berkeley)

Assistant Professors
Brodskiy, N., PhD ........................................... Saskatchewan (Canada)
Chen, X., PhD ................................................ Rutgers
Conant, J., PhD .............................................. Rutgers
Denzlner, J., PhD ............................................ ETH (Zurich)
Wang, C., PhD .............................................. Temple

Lecturers
Baiamonte, M., MS .......................................... Texas A&M
Bonee, K., MS ................................................ Tennessee
Campbell, T., MS ............................................. Tennessee
Cook, T., MS .................................................... Tennessee
Fowler, J., MA ................................................ Kentucky
Gilbert, M., MS ............................................... Tennessee

Minor in Linguistics

A minor in linguistics shall consist of 18 credit hours composed of

• Either English 471 or 3 hours selected in consultation with a linguistics advisor from Anthropology 411; Audiology and Speech Pathology 302, 320; Foreign Language/ESL Education 455; French 421, 422; Linguistics 321, 400, 429, 431, 435, 436, 472, 474, 476, 477, 485, 480, 491, 492, 493; Philosophy 472; Psychology 400, 424; Spanish 421, 422; Communication Studies 300, 320; Theatre 326.

• 15 additional hours – Audiology and Speech Pathology 305; English 371 or 372; Linguistics 423 and 425 or 426; plus 3 hours selected in consultation with a linguistics advisor.

INTERDISCIPLINARY PROGRAMS MAJOR
• MEDIEVAL STUDIES CONCENTRATION

Robert Bast, History, Chair

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

Latin is the most appropriate language for students in the medieval studies concentration and is essential for those who plan to continue their studies in graduate school. In addition, students planning to go on to graduate school are strongly advised to supplement their medieval studies concentration with extensive work in one of the traditional disciplines.

The concentration 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.

Category 1 – History, Philosophy, and Political Science
History 312, 313, 330, 334, 369, 474; Philosophy 322; Political Science 475.

Category 2 – Language and Literature
Classics 435; English 371, 401, 402; French 410; Italian 401, 402.

Category 3 – The Arts
Architecture 415; Art History 425, 431, 441, 451; Musicoology 210.

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).

Minor in Medieval Studies

A minor in medieval studies consists of Medieval Studies 201 and 403 and 12 additional hours distributed among the categories listed above for the major. Each student’s program, major or minor, must be approved in advance by the Medieval Studies Coordinating Committee chairperson.
Students who are interested in participating in the departmental honors program are urged to enroll in Mathematics 300 as soon as possible. Students who have completed Mathematics 300 may apply to the Mathematics Undergraduate Office for admission into the program, no later than the end of the junior year. Admission is based on recommendation of two University of Tennessee, Knoxville, mathematics faculty, including the student's teacher in Mathematics 300 or an upper-division Mathematics honors course. Students are normally expected to be in the top 20% among Mathematics 300 students to be admitted to the honors program. Those who are not admitted based on performance in Mathematics 300 but who do exceptionally well in an upper-division mathematics honors course may also be admitted. Membership in the Chancellor's Honors Program is not required, nor does such membership guarantee admission into the departmental honors program.

Honors students must meet stronger requirements. Specifically, honors students must meet all the requirements for a Bachelor of Science in Mathematics, but must also enroll in at least 4 hours of Mathematics 497 and take two upper-division mathematics sequences (instead of one), one of which must be an honors sequence. Honors students must also maintain a 3.4 cumulative GPA in all upper-division math courses and write a thesis (normally while enrolled in Mathematics 498) that must be approved by an honors thesis committee. The honors category upon graduation is determined as follows, based on the GPA of all upper-division math courses: GPA at least 3.4 – Honors; GPA at least 3.6 – High Honors; GPA at least 3.8 – Highest Honors.

### SAMPLE PROGRAMS

There are many careers one can pursue with a mathematics major. Sample programs for four different goals are listed below. Additional information is available in the Department of Mathematics office.

#### Industrial Employment

<table>
<thead>
<tr>
<th>First Year</th>
<th>Hours Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mathematics 141-142 (or 147-148) and 171</td>
<td>.11</td>
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<tr>
<td>English Composition</td>
<td>.6</td>
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<tr>
<td>Foreign Language</td>
<td>.6</td>
</tr>
<tr>
<td>Lab Science Distribution Requirement</td>
<td>.8</td>
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<table>
<thead>
<tr>
<th>Second Year</th>
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<tbody>
<tr>
<td>Mathematics 231, 241 (or 247), 251 (or 257), and 300</td>
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</tr>
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<td>Non-U.S. History Distribution Requirement</td>
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</tr>
<tr>
<td>Social Science Distribution Requirement</td>
<td>.6</td>
</tr>
<tr>
<td>Foreign Language (completion of secondary level)</td>
<td>.3</td>
</tr>
<tr>
<td>Science Distribution Requirement</td>
<td>.3</td>
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<tr>
<td>Elective</td>
<td>.3</td>
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<table>
<thead>
<tr>
<th>Third Year</th>
<th>Hours Credit</th>
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</thead>
<tbody>
<tr>
<td>Mathematics 351, 431 (or 435), 341, 371</td>
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</tr>
<tr>
<td>Humanities Distribution Requirement</td>
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</tr>
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<td>Social Science Distribution Requirement</td>
<td>.3</td>
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<tr>
<td>Electives</td>
<td>.12</td>
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<thead>
<tr>
<th>Fourth Year</th>
<th>Hours Credit</th>
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</thead>
<tbody>
<tr>
<td>Mathematics 471-472, 423, 475</td>
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</tr>
<tr>
<td>Upper-Level Distribution Requirement</td>
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<tr>
<td>Oral Communication Requirement</td>
<td>.1-3</td>
</tr>
<tr>
<td>Electives</td>
<td>.4-6</td>
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</tbody>
</table>

**Total 120 minimum**

#### Preparation for Graduate School

<table>
<thead>
<tr>
<th>First Year</th>
<th>Hours Credit</th>
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</thead>
<tbody>
<tr>
<td>Mathematics 141-142 (or 147-148) and 171</td>
<td>.11</td>
</tr>
<tr>
<td>English Composition</td>
<td>.6</td>
</tr>
<tr>
<td>Foreign Language (beginning level, preferably French, German, or Russian)</td>
<td>.6</td>
</tr>
<tr>
<td>Lab Science Distribution Requirement</td>
<td>.8</td>
</tr>
</tbody>
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### HONORS PROGRAM

The Mathematics Department Honors Program offers highly talented students an accelerated curricular path that permits them to enroll in graduate-level mathematics courses as early as the junior year, making them highly competitive for graduate fellowships upon completion of a Bachelor of Science degree. In addition to a more rapid curriculum, the honors program offers enhanced academic advising and opportunities for students to interact with their peers through the Undergraduate Honors Seminar (Mathematics 497), in which honors students will discuss their theses and other undergraduate research projects.

### LABORATORY SCIENCE AND FOREIGN LANGUAGE

**First Year**

- Lab Science Distribution Requirement: 8 hours
- English Composition: 6 hours
- Foreign Language: 6 hours

**Second Year**

- Social Science Distribution Requirement: 3 hours
- Lab Science Distribution Requirement: 8 hours

**Third Year**

- Humanities Distribution Requirement: 6 hours
- Social Science Distribution Requirement: 3 hours
- Electives: 12 hours

**Fourth Year**

- Lab Science Distribution Requirement: 6 hours
- Oral Communication Requirement: 1-3 hours
- Electives: 4-6 hours
Second Year
Mathematics 231, 247, 257, and 300 .......................... 13
Non-U.S. History Distribution Requirement .......................... 6
Social Science Distribution Requirement .......................... 3
Foreign Language (completion of secondary level) .......................... 3
Science Distribution Requirement .......................... 3
Elective .......................... 3
Third Year
Upper-Division Mathematics Requirement .......................... 12
Humanities Distribution Requirement .......................... 6
Social Science Distribution Requirement .......................... 3
Elective .......................... 12
Fourth Year
Upper-Division Division of Social Science (possibly Honors) .......................... 6
Honors Upper-Division Math Sequence .......................... 6
Upper-Level Distribution Requirement .......................... 15
Oral Communication Requirement .......................... 1-3
Elective .......................... 4-6

Secondary Education
First Year
Mathematics 141-142 (or 147-148) and 171 .......................... 11
English Composition .......................... 6
Foreign Language .......................... 6
Lab Science Distribution Requirement .......................... 8
Second Year
Mathematics 231, 241 (or 247), 251 (or 257), and 300 .......................... 13
Non-U.S. History Distribution Requirement .......................... 6
Social Science Distribution Requirement .......................... 3
Foreign Language (completion of secondary level) .......................... 3
Science Distribution Requirement .......................... 3
Elective .......................... 0-2
Third Year
Mathematics 323, 351, 341, 371, 400 .......................... 15
Humanities Distribution Requirement .......................... 6
Social Sciences Distribution Requirement .......................... 3
Educational Psychology 210 .......................... 3
Fourth Year
Mathematics 445-446, 460, 421 (or 411, 431) .......................... 12
Upper-Level Distribution Requirement .......................... 6
Cultural Studies in Education 400 .......................... 2
Oral Communication Requirement .......................... 1-3
Educational Psychology 401 .......................... 2
Special Education 402 .......................... 2
Theory and Practice in Teacher Education 352 (1), 335 (3) .......................... 4
Instructional Technology 486 .......................... 3

Total 120 minimum

5TH YEAR MASTER OF SCIENCE

Students may earn a Bachelor of Science (majoring in mathematics) and a Master of Science with a major in mathematics in five years as follows. (See the Graduate Catalog for more information on the Master of Science degree.) Please note that admission as a graduate student must be obtained prior to the beginning of the fifth year.

• Complete a total of 129 hours, including 99 hours of undergraduate credit prior to the fourth year and no more than 15 hours per semester in the fourth year.
• Do not complete the requirements for an undergraduate degree prior to the end of the fourth year. (For example, postpone one upper-level distribution requirement until the last semester of the fourth year).
• Complete an additional 9 hours of 400- or 500-level mathematics courses for graduate credit by submitting a “Senior Requesting Graduate Credit” form and obtaining Senior Privilege through the Office of Graduate Student Services (requires a 3.0 cumulative GPA). These courses must be taken in the fourth year and may not be used to fulfill any requirements for the undergraduate mathematics major.

• In the fifth year, complete 9 hours per semester of graduate courses fulfilling the requirements for a Master of Science degree, including two graduate sequences and Master of Science project.
• Complete 3 graduate hours during the summer preceding or following the fifth year.

The Mathematics Department awards graduate assistantships each year. The assistantship pays graduate tuition, as well as a stipend for living expenses. Students who fill all requirements of the Mathematics Honors Program will be given priority for a graduate teaching assistantship from the UT Mathematics Department beginning in the academic year following award of the Bachelor of Science degree.

Accelerated/5th Year Master of Science

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<thead>
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<th>First Year</th>
<th>Hours Credit</th>
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<tr>
<td>English Composition</td>
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<td>Foreign Language (preferably French, German, or Russian)</td>
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<td>Lab Science Distribution Requirement</td>
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<tr>
<td>Social Science Distribution Requirement</td>
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<tr>
<th>Second Year</th>
<th>Hours Credit</th>
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<tbody>
<tr>
<td>Mathematics 171, 231, 247, 257</td>
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<tr>
<td>Upper-Division Mathematics Courses</td>
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<td>Social Science Distribution Requirement</td>
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<th>Third Year</th>
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<tbody>
<tr>
<td>Upper-Division Division of Social Science (possibly Honors)</td>
<td>6</td>
</tr>
<tr>
<td>Honors Upper-Division or Graduate Math Sequence</td>
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<th>Fourth Year</th>
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<tr>
<td>Upper-Division Honors or Graduate Math Sequences</td>
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<td>Upper-Level Distribution Requirement</td>
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<td>Elective</td>
<td>1-3</td>
</tr>
<tr>
<td>Oral Communication Requirement</td>
<td>9-11</td>
</tr>
</tbody>
</table>

Total 120 minimum

5TH YEAR MASTER OF SCIENCE IN STATISTICS

Students may earn a Bachelor of Science with a major in mathematics and a Master of Science with a major in statistics in five years following a similar program as above. For more information contact the Department of Statistics, Operations and Management Science.

Minor in Mathematics

Prerequisite to the minor – Mathematics 141-142 (or 147-148). The minor consists of Mathematics 231, 241, 251, 300 and 9 additional hours at the 300-400 level (except 399, 405, 490, 497, and 498). Computer Science 370 may be substituted for three of those hours. The grade in each of these courses must be at least C.

DEPARTMENT OF MICROBIOLOGY

http://web.bio.utk.edu/micro/
Jeffrey M. Becker, Head

Professors
Becker, J.M., PhD ........................................ Cincinnati
Brian, D.A., PhD/DVM ........................................ Michigan State
Moore, R.N., PhD ........................................ Texas
Riggsby, W.S., PhD ........................................ Yale
Rouse, B.T., PhD ........................................ Guelph (Canada)
BVSc ........................................ Bristol (UK)
Sayler, G.S., PhD ........................................ Idaho
Small, P.L.C., PhD ........................................ Stanford
White, D.C. (Distinguished Scientist), MD ........................................ Tufts
PhD ........................................ Rockefeller
Microbiology is the study of organisms so small that they must be viewed with a microscope. These organisms include bacteria, yeasts, molds, protozoa and viruses. Microbiology is one of the fastest growing areas of science. The concentration in microbiology is designed to furnish necessary experience in medical, agricultural, food, industrial, or pharmaceutical microbiology. In addition, many microbiologists pursue careers in environmental microbiology and bioremediation. Other students become teachers, science writers, technical librarians, or managers of scientific companies. The microbiology concentration also provides an excellent background for students who plan to enter medical school, veterinary school or other health science graduate programs.

Students wishing to emphasize study in this area elect to major in biological sciences with a concentration in microbiology. See the description of the biological sciences major under Division of Biology for requirements.

DEPARTMENT OF MODERN FOREIGN LANGUAGES AND LITERATURERS

http://web.utk.edu/~mfl/
Chauncey J. Mellor, Interim Head

**Professors**
- Brady, P. (Shumway Chair of Excellence), PhD - Université de Paris (Sorbonne)
- Brizio-Skov, F., PhD - Washington
- Campion, E.J., PhD - Yale
- Creel, B., PhD - California (Davis)
- DiMaria, S., PhD - Wisconsin
- Handselman, M.H. (Distinguished Professor), PhD - Florida
- Hodges, C.R. (Associate Dean), PhD - Chicago
- Holmlund, C., PhD - Wisconsin
- Levy, K.D., PhD - Kentucky
- Mellor, C.J., PhD - Chicago
- Rivera-Rodas, O., PhD - California (Davis)
- Romeiser, J.B., PhD - Vanderbilt
- Young, D.J., PhD - Texas

**Associate Professors**
- Blackwell, S.H., PhD - Indiana
- Cruz-Camarena, N., PhD - State University of New York (Buffalo)
- Essif, L., PhD - Brown
- Kaplan, G., PhD - Pennsylvania
- LaCure, J., PhD - Indiana
- Lee, D.E., PhD - Stanford
- McAlpin, M.K., PhD - Columbia
- Ohnesorg, S., PhD - McGill (Canada)
- Pervukhina, N.K., PhD - Bryn Mawr
- Silva-Filho, E., PhD - North Carolina

**Assistant Professors**
- Arnold, M.N., PhD - Texas
- Ayo, A., PhD - Arizona
- Berwald, O., PhD - North Carolina
- Cano, L., PhD - Pennsylvania State
- Duke, D., PhD - Pittsburgh
- Gimmel, M., PhD - Indiana
- Gregory, A., PhD - Texas
- He, D., PhD - British Columbia
- Honiguchi, N., PhD - Pennsylvania
- Johnson, E., PhD - Tennessee
- Koenig, E., PhD - Michigan
- Magilow, D.H., PhD - Princeton

Programs in the Department of Modern Foreign Languages and Literatures provide students with courses in language, literature, linguistics, and culture. Along with developing language proficiency in reading, writing, speaking, and listening comprehension, the courses prepare students for study abroad and offer learning experiences that foster understanding and appreciation of global issues and multicultural perspectives.

**Placement Examination**

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

**Proficiency Examinations**

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

**Study Abroad**

Five summer study abroad opportunities are available to students through the department. The department sponsors programs in Brazil, France, Italy, Mexico, and Spain. Students can earn up to 6 credit hours by participating in these programs. In most cases, the courses will fulfill part or all of the foreign language requirement (completion of the elementary or intermediate level). Upper-division classes in literature, culture, and language are also available for major and minor credit. Participation in these programs will satisfy the foreign study requirements for language and world business. A faculty member accompanies students in 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 Modern Foreign Languages and Literatures, 701 McClung Tower.

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

**FRENCH MAJOR**

The French major consists of 30 hours in courses numbered 333 and above. (French 300 does not count toward the major but is recommended for students needing grammar review.) All majors must complete the following courses (or their equivalent...
with consent of the department) – 333-334, 351-352, 421, 422, 440; one 3-hour literature course at the 400 level; 6 additional hours of French courses at the 300 or 400 level. Advanced students may substitute a 400-level course for either 333 or 334 with consent of the French faculty.

**GERMAN MAJOR**

Majors or minors in German should carefully prepare their programs in consultation with a departmental faculty advisor. German 201-202 or the equivalent is a prerequisite to the major. German 331-332 do not count toward the major. In order to graduate, majors will be required to take a proficiency test in German.

**LANGUAGE AND LITERATURE CONCENTRATION**

Language and literature concentration consists of at least 30 hours of German in courses numbered above 300, including 301-302 and 3 hours chosen from German 323, 350, 363 or 415.

**GERMAN STUDIES CONCENTRATION**

The German studies concentration is designed for students who would like to focus on German-speaking countries from a comprehensive cultural perspective. The four components of the German studies concentration are command of the German language; knowledge of the cultural achievements (art, music, philosophy, poetry, fiction, religion, theatre) of the German-speaking people; knowledge of the political, social, and cultural history of the German-speaking nations; and knowledge and understanding of contemporary institutions in German-speaking nations.

This concentration consists of 36 hours, distributed as follows.

- **Language**
  - Any four from German 311, 312, 411, 412, 435, 485.

- **Literature, Culture, Arts**
  - Any four from Art History 441; German 301, 302, 305, 323, 350, 415, 422, 423, 424; Musicology 400, 420, 430; Philosophy 324, 326, 353, 370, 395; Religious Studies 385, 411.

- **History**
  - At least one from German 436; History 315, 323, 334, 335, 471, 472, 484.

- **Contemporary Institutions**
  - At least one from Geography 340; German 363.

- **Additional Courses**
  - Two additional courses from the above History and Contemporary Institutions lists.

**HONORS CONCENTRATION**

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

**ITALIAN MAJOR**

The Italian major consists of 30 hours in courses numbered 311 and above.

**RUSSIAN MAJOR**

The Russian major has two options – literary emphasis and area studies. Majors should prepare their programs in consultation with the departmental faculty advisor. Both options consist of 30 hours of courses and both require Russian 311-312 and 401-402.

**AREA STUDIES OPTION**

Additional requirements for the area studies option are Russian 371-372; 3 or more credits chosen from Russian 221, 222, and Russian courses numbered 300 and above; and 6 or more credits chosen from History 340-341, and Political Science 459.

**LITERARY EMPHASIS OPTION**

The literary emphasis option requires Russian 451-452. Students may choose their remaining 12 hours from a group of courses that includes 221-222 and all courses numbered above 300.

**SPANISH MAJOR**

The Spanish major consists of 30 hours in courses numbered above 300 in one of two concentrations. All majors must complete 323, 330, and 331. Majors who study a semester or more abroad must take 323 (must be taken prior to any study abroad), 330, and three of the four required 400-level courses at the University of Tennessee.

**HISPANIC STUDIES CONCENTRATION**

One course from Spanish 332, 333 or 334; six additional courses in language, literature or culture, at least four of which must be from the 400 level. Students whose level of proficiency in Spanish is superior as defined by the ACTFL Proficiency Guidelines may substitute a 400-level course for Spanish 323 with consent of the department.

**LITERATURE CONCENTRATION**

Spanish 332, 333, 334; four additional 400-level courses, at least two of which must be in literature.

**FRENCH, GERMAN, ITALIAN, RUSSIAN, SPANISH MAJOR • LANGUAGE AND WORLD BUSINESS CONCENTRATION or INTERDISCIPLINARY PROGRAMS MAJOR • LANGUAGE AND WORLD BUSINESS – CHINESE, JAPANESE, OR PORTUGUESE CONCENTRATION**

Students who wish to prepare for careers in international business may complete a special major in Chinese, French, German, Italian, Japanese, Portuguese, Russian, or Spanish; a professional emphasis in international business, international retail merchandising, or international agricultural economics; and some form of practical experience related to the concentration. Admission is by permission of the program director.

**A. Language Requirements**

**Chinese concentration (30 hours)**

- Asian Languages 231, 232, 331, 332; 3 hours of Asian Languages 490 or 491; and 9 hours of courses from the following – Asian Languages 311, 312, 315; History 389, 390, 391, 476; Political Science 454; Religious Studies 376, 379 (or other course approved by the Asian Studies Advisor).

**French major (33 hours)**

- French 333, 345, 351, 352, 400, 422, 432, 440, 445; a 400-level literature elective; and 3 hours of 491, 490 or 493.
German major (30 hours)
German 301-302, 311-312, 323 or 363, 485; 3 hours of 490, 491 or 493; and 3 courses numbered 320 or above.

Italian major (27 hours)
Italian 314, 341, 342, 401; 3 hours of 490 or 491; and 12 hours of any 400-level literature courses.

Japanese concentration (30 hours)
Japanese 251, 252, 351, 352, 451, 452; 3 hours of Asian Languages 490 or 491; and 1 of the following – Japanese 313, 314, or 413.

Portuguese concentration (30 hours)
Portuguese 301-302, 309, 315-316, 409, 431 or 432; and 9 hours of courses from – Portuguese 490, 491,493; Latin American Studies 360, 361, 401, 460, 463, 465.

Russian major (30 hours)
Russian 311-312, 401-402, 451-452; 3 hours of 490 or 491; and 9 hours from – 221, 222, 371, 372, 430, or any 400-level courses.

Spanish major (33 hours)
Spanish 323, 330, 331, 345 or 346; at least one 300-level literature survey course; 3 hours of Spanish 490 or 491; any four courses in language, literature or culture (at least two of which must be from the 400 level, while the remaining two may be selected from courses numbered above 300); and Portuguese 400. Students whose level of proficiency in Spanish is superior as defined by the ACTFL Proficiency Guidelines may substitute a 400-level course for 323 with consent of the department.

B. Professional Emphasis
International Business (26 hours)
Accounting 200, Economics 201, Business Administration 201, Statistics 201, Finance 301, Marketing 300, Economics 322, Management 472. All upper-division (300 level or above) coursework must be taken at the University of Tennessee unless otherwise approved by College of Business Administration and the Director of the Language and World Business Program. Students are responsible for meeting all prerequisites for business courses. (For instance, Mathematics 125 or 141 is a prerequisite to Statistics 201.) Students should consult their catalogs and advisors to ensure that all prerequisites are met.

International Retail Merchandising (26 hours)
Accounting 200; Business Administration 201; Marketing 300, Retail and Consumer Sciences 210, 310, 421; and 6 additional credit hours from Retail and Consumer Sciences 410, 411, 412, 415, 493. Students are responsible for meeting all prerequisites for business courses. Students should consult their catalogs and advisors to ensure that all prerequisites are met.

International Agricultural Economics (25 hours)
Accounting 200; Business Administration 201; Agricultural Economics 320, 342, 350, 420, 430; and 3 credit hours from the following Marketing 300; Management 300, 472; Finance 303. Students are responsible for meeting all prerequisites for business courses. Students should consult their catalogs and advisors to ensure that all prerequisites are met.

C. Practical Experience
Each language and world business student must undertake an internship (490), study abroad (491), or a relevant research project (493) for a minimum of 3 hours (included in major requirements).

Additionally, language and world business students must consult an advisor in the department in selecting relevant courses under the basic skills and distribution requirements for the college.

Students interested in the language and world business program should contact the director for advising as early as possible in their college careers. The academic record presented will be assessed by the Director of Language and World Business.

SCHOOL OF MUSIC
http://www.music.utk.edu

Roger L. Stephens, Director
Barbara Murphy, Associate Director for Undergraduate Studies

Professors
Brock, J.P., MM ................................................. Alabama
Coker, J., MA ................................................. Sam Houston
Jacobs, K.A., DMA .............................................. Texas
Leach, C.F., DM ................................................ Northwestern
MacMerran, W.S., MM ............................ Wisconsin
McClelland, D.K., MA ........................................ Columbia
Moore, M.C., PhD ................................................. Michigan
Northington, D.B., DMA ....................................... Yale
Pederson, D.M., PhD ........................................... Iowa
Sousa, G.D., PhD ................................................. Ohio State
Stephens, R., MM .............................................. East Carolina
Stutzenberger, D.R., DMA ................................... Maryland

Minors

Chinese
Asian Languages 231-232 or equivalents are prerequisites to the minor. The minor consists of at least 17 hours of Chinese courses, including Asian Languages 331-332, 431, and 6 hours from Asian Languages 311-312 or other Chinese courses above 300.

French
Eighteen hours in courses numbered 333 and above, distributed as follows – 333, 351-352, 421, and 6 hours of electives at the 300 or 400 level. French 300 does not count toward the minor but is recommended for students needing grammar review.

German
German 201-202 equivalents are prerequisites to the minor. The minor consists of at least 18 hours of German courses numbered above 300 – normally German 301-302 and 12 additional hours of courses numbered above 300 (excluding 331-332 and courses in English translation).

Italian
Eighteen hours in courses numbered 311 or above. Students pursuing a minor must consult with a departmental advisor.

Japanese
Asian Languages 251-252 equivalents are prerequisites to the minor. The minor consists of at least 20 hours of Japanese courses including Asian Languages 351-352; 451-452; and 6 hours from Asian Languages 313-314, 413 or other Japanese courses above 300.

Portuguese
Eighteen hours in courses numbered 300 or above. Students pursuing a minor must consult with a departmental advisor.

Russian
Eighteen hours of Russian courses including 311-312, 401-402, and 6 hours chosen from 221-222 and courses numbered above 300.

Spanish
Eighteen hours in courses numbered above 300, distributed as follows – 323, 330 and 331; one course from 332, 333 or 334; and two additional courses. Minors who study a semester or more abroad must take 323 (must be taken prior to any study abroad), 330, and at least one additional course numbered above 300 at the University of Tennessee.
The extra semesters of study usually result in lengthening the period needed to satisfy requirements for advanced standing (300 level).

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

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

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

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

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

Applied Music Fees
$150 per semester for half-hour lesson (1 credit hour); $300 and $150 per semester for hour lesson (2-3 credit hours). Computer registration and applied music fee payment must be verified in the School of Music office no later than the end of the second day of classes of the fall and spring semesters and the first day of the summer terms in order to be accepted for applied music study. Applied music fees are not refundable after lessons have been scheduled.

Keyboard Skills Proficiency Examination
Proficiency in keyboard skills is required of all music majors and is usually acquired in the four-semester series of Music Keyboard 110, 120, 210, 220. Students who already possess keyboard skills may pass a proficiency examination in lieu of these courses.

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

**BACHELOR OF MUSIC DEGREE**

**• MUSIC MAJOR**

The School of Music offers curricula leading to the Bachelor of Music degree with concentrations in music theory/composition, music education, and applied music (voice; piano; organ; sacred music-organ or piano; sacred music-voice; piano pedagogy; strings; woodwind, brass, and percussion instruments; studio music and jazz). This study prepares students for graduate music study or for positions in music for which a professional music degree is required.

The University General Education Requirement (6 hours foreign language) 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 each of two languages chosen from French, German and Italian.

**MUSIC EDUCATION CONCENTRATION**

Students seeking licensure to teach music in the public schools should pursue one of the options within this degree program. Options are available to prepare teachers for instrumental teaching or for the teaching of vocal and general music. The option of a student-teaching semester leads to the degree and to teaching licensure. The internship option provides for the granting of the degree with teacher licensure and 24 hours which may be applied to the master's degree.

**Requirements for the Bachelor of Music • Music Major**

• Music Education Concentration – Wind/Percussion Emphasis

<table>
<thead>
<tr>
<th>First Year</th>
<th>Hours</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>English 101*, 102*</td>
<td>3.3</td>
<td></td>
</tr>
<tr>
<td>Music Performance (100 level)</td>
<td>2.2</td>
<td></td>
</tr>
<tr>
<td>Music General 200</td>
<td>0.0</td>
<td></td>
</tr>
<tr>
<td>1Music Ensemble</td>
<td>1.1</td>
<td></td>
</tr>
<tr>
<td>Music Ensemble 359</td>
<td>1.1</td>
<td></td>
</tr>
<tr>
<td>Music Theory 110, 120</td>
<td>3.3</td>
<td></td>
</tr>
<tr>
<td>Music Theory 130, 140</td>
<td>1.1</td>
<td></td>
</tr>
<tr>
<td>Musicology 110*</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Music Education 230</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Music Education 240 or 241</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Music Keyboard 110, 120</td>
<td>1.1</td>
<td></td>
</tr>
</tbody>
</table>

**Second Year**

2Cultures and Civilizations* | 3.3 |
Child and Family Studies 210* | 3 |
Music Performance (200 level) | 2.2 |
Music General 200 | 0.0 |
1Music Ensemble | 1.1 |
Music Ensemble 359 | 1.1 |
Music Theory 210, 220 | 3.3 |
Music Theory 230, 240 | 1.1 |
Musicology 210*, 220* | 3.3 |
Music Education 210, 211 | 1.1 |
Music Education 220, 221 | 1.1 |

**Third Year**

3Communicating Orally* | 3 |
Mathematics 115* | 3 |
4Natural Sciences* | 4 |
Music Performance (200 or 300 level) | 2.2 |
Music General 200 | 0.0 |
1Music Ensemble | 1.1 |
Music Ensemble 359 | 1 |
Music Theory 320 | 2 |
Musicology 380* | 3 |
Music Education 350 | 1 |

**Fourth Year**

Music Education 310, 320 | 3.2 |
Music Education 200 | 1 |
Music Education 212 | 1 |
Instructional Technology 486 | 3 |

**Total 124**

* Meets University General Education Requirement.
** Teacher licensure requires a fifth-year graduate internship or one semester of student teaching.
1 Chosen from Music Ensemble 350, 352, 353.
2 See Cultures and Civilizations – University General Education Requirement. Select two courses on the list or two courses in a foreign language at the intermediate level.
3 See Communicating Orally – University General Education Requirement. Select one course from the list.
4 See Natural Sciences – University General Education Requirement. Select two courses from the list. At least one of the courses must have a laboratory.
5 See Social Sciences – University General Education Requirement.
6 See Quantitative Reasoning – University General Education Requirement.

**Internship Year**

Music Education 575 | 8.4 |
Music Education 574 | 2.2 |
Music Education 591 | 4 |
Electives in Music Education or Music | 6 |

**Total 24 graduate**

or

**Student Teaching Semester**

Music Education 400 | 12 |
Music Education 401 | 0 |

**Total 12 undergraduate**

**Requirements for the Bachelor of Music Degree • Music Major • Music Education Concentration – String Emphasis**

<table>
<thead>
<tr>
<th>First Year</th>
<th>Hours</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>English 101*, 102*</td>
<td>3.3</td>
<td></td>
</tr>
<tr>
<td>Music Performance (100 level)</td>
<td>2.2</td>
<td></td>
</tr>
<tr>
<td>Music General 200</td>
<td>0.0</td>
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<td>Music General 301</td>
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<td>Music Education 420</td>
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<td>Music Education 430</td>
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<td>Music Education 440</td>
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</tr>
<tr>
<td>Cultural Studies in Education 400</td>
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<td></td>
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<tr>
<td>Educational Psychology 401</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>Special Education 402</td>
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<td></td>
</tr>
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</table>

**Second Year**

1Music Ensemble | 1.1 |
Music Ensemble 359 | 1.1 |
Music Theory 210, 220 | 3.3 |
Music Theory 230, 240 | 1.1 |
Musicology 210*, 220* | 3.3 |
Music Education 210, 211 | 1.1 |
Music Education 220, 221 | 1.1 |

**Third Year**

3Communicating Orally* | 3 |
Mathematics 115* | 3 |
Music Performance (200 level) | 2.2 |
Music General 200 | 0.0 |
Music General 301 | 1.1 |
Music Theory 210, 220 | 3.3 |
Music Theory 230, 240 | 1.1 |
Musicology 210*, 220* | 3.3 |
Music Education 210 | 1 |
Music Education 220 | 1 |

**Fourth Year**

Music Education 310, 320 | 3.2 |
Music Education 200 | 1 |
Music Education 212 | 1 |
Instructional Technology 486 | 3 |

**Total 124**

* Meets University General Education Requirement.
** Teacher licensure requires a fifth-year graduate internship or one semester of student teaching.
1 Chosen from Music Ensemble 350, 352, 353.
2 See Cultures and Civilizations – University General Education Requirement. Select two courses on the list or two courses in a foreign language at the intermediate level.
3 See Communicating Orally – University General Education Requirement. Select one course from the list.
4 See Natural Sciences – University General Education Requirement. Select two courses from the list. At least one of the courses must have a laboratory.
5 See Social Sciences – University General Education Requirement.
6 See Quantitative Reasoning – University General Education Requirement.
**Third Year**

<table>
<thead>
<tr>
<th>Course</th>
<th>Credit</th>
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<tbody>
<tr>
<td>Communicating Orally*</td>
<td>3</td>
</tr>
<tr>
<td>Mathematics 115*</td>
<td>3</td>
</tr>
<tr>
<td>Natural Sciences*</td>
<td>4</td>
</tr>
<tr>
<td>Music Performance (200 or 300 level)</td>
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<tr>
<td>Music Performance 110</td>
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<tr>
<td>Music Theory 320</td>
<td>2</td>
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<tr>
<td>Music Ensemble 315</td>
<td>1.1</td>
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<tr>
<td>Musicology 380*</td>
<td>3</td>
</tr>
<tr>
<td>Music Education 230</td>
<td>1</td>
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<tr>
<td>Music Education 350</td>
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<td>Music Education 200</td>
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<tr>
<td>Instructional Technology 486</td>
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**Fourth Year**

<table>
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<th>Course</th>
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<tbody>
<tr>
<td>Social Sciences*</td>
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<td>Natural Sciences*</td>
<td>3</td>
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<tr>
<td>Quantitative Reasoning*</td>
<td>3</td>
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<tr>
<td>Music Performance (300 or 400 level)</td>
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<td>Musicology 380*</td>
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<td>Music Voice 450</td>
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<td>Instructional Technology 486</td>
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</table>

**Internship Year**

<table>
<thead>
<tr>
<th>Course</th>
<th>Credit</th>
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<tbody>
<tr>
<td>Music Education 575</td>
<td>8.4</td>
</tr>
<tr>
<td>Music Education 574</td>
<td>2</td>
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<tr>
<td>Music Education 591</td>
<td>4</td>
</tr>
<tr>
<td>Electives in Music Education or Music</td>
<td>6</td>
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</tbody>
</table>

**Second Year**

<table>
<thead>
<tr>
<th>Course</th>
<th>Credit</th>
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<tbody>
<tr>
<td>Social Sciences*</td>
<td>3</td>
</tr>
<tr>
<td>Natural Sciences*</td>
<td>3</td>
</tr>
<tr>
<td>Quantitative Reasoning*</td>
<td>3</td>
</tr>
<tr>
<td>Music Performance (300 or 400 level)</td>
<td>2</td>
</tr>
<tr>
<td>Music General 200</td>
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<tr>
<td>Music Ensemble</td>
<td>1</td>
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<td>Music Education 200</td>
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<td>Music Education 591</td>
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<tr>
<td>Electives in Music Education or Music</td>
<td>6</td>
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**Requirements for the Bachelor of Music • Music Major**

**Music Education Concentration – Vocal-General/Keyboard Emphasis**

**First Year**

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>English 101, 102*</td>
<td>3.3</td>
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<tr>
<td>Communicating Orally*</td>
<td>3</td>
</tr>
<tr>
<td>Music Performance (100-level Keyboard)</td>
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<tr>
<td>Music Performance 155, 156 or Music Voice 110</td>
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<tr>
<td>Music General 200</td>
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<tr>
<td>Music Ensemble</td>
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</tr>
<tr>
<td>Music Theory 110, 120</td>
<td>3.3</td>
</tr>
<tr>
<td>Music Theory 130, 140</td>
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<tr>
<td>Musicology 110*</td>
<td>3</td>
</tr>
<tr>
<td>Music Education 240 or 241</td>
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</tbody>
</table>

**Internship Year**

<table>
<thead>
<tr>
<th>Course</th>
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<tbody>
<tr>
<td>Music Education 575</td>
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<tr>
<td>Music Education 574</td>
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</tr>
<tr>
<td>Music Education 591</td>
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</table>

**Student Teaching Semester**

<table>
<thead>
<tr>
<th>Course</th>
<th>12</th>
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<tbody>
<tr>
<td>Music Education 400</td>
<td></td>
</tr>
<tr>
<td>Music Education 401</td>
<td></td>
</tr>
</tbody>
</table>

**Total 124 credits**

The above requirements include completing at least 124 credits in total, with specific credits distributed across different years and semesters. The courses listed include a mix of music education, general education, and special education courses, ensuring a comprehensive education that meets the requirements for a Bachelor of Music degree with a Music Major concentration in Vocal-General/Keyboard Emphasis.
**Requirements for the Bachelor of Music • Music Major**

- **Music Education Concentration – Vocal-General/Vocal**
- **Requirements for the Bachelor of Music**
- **Music Major**

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>First Year</td>
<td></td>
<td></td>
</tr>
<tr>
<td>English 101*, 102*</td>
<td></td>
<td>3.3</td>
</tr>
<tr>
<td>Communicating Orally*</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>Music Performance (100-level Keyboard)</td>
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<tr>
<td>Music Performance 155, 156 or Music Voice 110</td>
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<tr>
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<tr>
<td>Music Ensemble</td>
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<td>1.1</td>
</tr>
<tr>
<td>Music Theory 110, 120</td>
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<tr>
<td>Music Theory 130, 140</td>
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<td>1.1</td>
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<tr>
<td>Musicology 110*</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>Music Education 240 or 241</td>
<td></td>
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</tr>
</tbody>
</table>

| Second Year                                 |       |        |
| Child and Family Studies 210*               |       | 3      |
| Music Performance (200-level Keyboard)      |       | 2.2    |
| Music Performance 155, 156 or 255, 256 (Voice) |     | 1.1    |
| Music General 200                           |       | 0.0    |
| Music Ensemble                              |       | 1.1    |
| Music Theory 210, 220                       |       | 3.3    |
| Music Theory 230, 240                       |       | 1.1    |
| Musicology 210*, 220*                       |       | 3.3    |
| Music Education 200                         |       | 0      |
| Music Education 201                         |       | 1.1    |

| Third Year                                  |       |        |
| Natural Sciences*                           |       | 4      |
| Mathematics 115*                            |       | 3      |
| Music Performance (200- or 300-level Keyboard) |   | 2.2    |
| Music General 200                           |       | 0.0    |
| Music Ensemble                              |       | 1.1    |
| Music Theory 450                            |       | 2      |
| Musicology 380*                             |       | 3      |
| Music Education 210 or 211                  |       | 1      |
| Music Education 250, 251                    |       | 1.1    |
| Music Education 310, 320                    |       | 3.2    |
| Music Voice 450                             |       | 2      |
| Instructional Technology 486                |       | 3      |

| Fourth Year                                 |       |        |
| Social Sciences                             |       | 3      |
| Natural Sciences*                           |       | 3      |
| Quantitative Reasoning*                     |       | 3      |
| Music Performance (300 or 400 level)        |       | 2      |
| Music General 200                           |       | 0      |
| Music Ensemble                              |       | 1.1    |
| Music Education 200                         |       | 1.1    |
| Music Education 330                         |       | 3      |
| Music Education 350                         |       | 1      |
| Music Education 420                         |       | 3      |
| Music Education 490                         |       | 3      |
| Music General 301                           |       | 0      |
| Cultural Studies in Education 400           |       | 2      |
| Educational Psychology 401                  |       | 2      |
| Special Education 402                       |       | 2      |

| Total 122**                                 |       |        |

* Meets University General Education Requirement.

** Teacher licensure requires a fifth-year graduate internship or one semester of student teaching.

1 See Communicating Orally – University General Education Requirement. Select one course from the list.

2 See Cultures and Civilizations – University General Education Requirement. Select two courses on the list or two courses in a foreign language at the intermediate level.

3 See Natural Sciences – University General Education Requirement. Select two courses from the list. At least one of the courses must have a laboratory.

4 See Social Sciences – University General Education Requirement.

5 See Quantitative Reasoning – University General Education Requirement.

---

**Internship Year**

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Music Education 575</td>
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<td>Music Education 574</td>
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<tr>
<td>Electives in Music Education or Music</td>
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| Total 24 graduate                           |       |        |

or **Student Teaching Semester**

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| Total 12 undergraduate                      |       |        |

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**Requirements for the Bachelor of Music • Music Major**

- **Organ Concentration**

<table>
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<tr>
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<th>Hours</th>
<th>Credit</th>
</tr>
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<tbody>
<tr>
<td>English 101*, 102*</td>
<td></td>
<td>3.3</td>
</tr>
<tr>
<td>Music Theory 110, 120</td>
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<td>3.3</td>
</tr>
<tr>
<td>Music Theory 130, 140</td>
<td></td>
<td>1.1</td>
</tr>
<tr>
<td>Musicology 110*</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>Music Performance 190</td>
<td></td>
<td>3.3</td>
</tr>
<tr>
<td>Music Ensemble</td>
<td></td>
<td>1.1</td>
</tr>
<tr>
<td>Music General 200</td>
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<td>0.0</td>
</tr>
<tr>
<td>Music General 201</td>
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<td>0.0</td>
</tr>
<tr>
<td>Foreign Language (200-level sequence)*</td>
<td></td>
<td>3.3</td>
</tr>
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</table>

| Second Year                                 |       |        |
| Music Theory 210*, 220*                     |       | 3.3    |
| Music Theory 230, 240                       |       | 3.3    |
| Music Performance 290                       |       | 3.3    |
| Music Ensemble                              |       | 1.1    |
| Music General 200                           |       | 0.0    |
| Electives                                   |       | 2      |
| Quantitative Reasoning*                     |       | 3.3    |

| Third Year                                  |       |        |
| Musicology 380*                             |       | 3      |
| Music Theory 310                            |       | 3      |
| Music Performance 390                       |       | 3.3    |
| Music Keyboard 410                          |       | 1      |
| Music General 200                           |       | 0.0    |
| Music General 301                           |       | 0      |
| Music General 310                           |       | 0      |
| Electives                                   |       | 3      |
| Social Sciences*                            |       | 3.3    |

| Fourth Year                                 |       |        |
| Music Education 310                         |       | 3      |
| Music Keyboard 410                          |       | 1.1    |
| Electives                                   |       | 2      |
| Music Performance 490                       |       | 3.3    |
| Music Ensemble                              |       | 1.1    |
| Music General 200                           |       | 0.0    |
| Music General 401                           |       | 0      |
| Music Keyboard 460, 470                     |       | 3.3    |

| Total 120                                   |       |        |

* Meets University General Education Requirement.

1 See Quantitative Reasoning – University General Education Requirement. Select two courses from the list.

2 See Social Sciences – University General Education Requirement. Select two courses from the list.

3 See Communicating Orally – University General Education Requirement. Select one course from the list.

4 See Natural Sciences – University General Education Requirement. Select two courses from the list. At least one of the courses must have a laboratory.
### Requirements for the Bachelor of Music • Music Major

#### Piano Pedagogy Concentration

<table>
<thead>
<tr>
<th>First Year</th>
<th>Hours Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>English 101*, 102*</td>
<td>3.3</td>
</tr>
<tr>
<td>Music Theory 110, 120</td>
<td>3.3</td>
</tr>
<tr>
<td>Music Theory 130, 140</td>
<td>1.1</td>
</tr>
<tr>
<td>Musicology 110*</td>
<td>.3</td>
</tr>
<tr>
<td>Music Performance 180</td>
<td>3.3</td>
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<tr>
<td>Music Ensemble</td>
<td>1.1</td>
</tr>
<tr>
<td>Music General 200</td>
<td>0.0</td>
</tr>
<tr>
<td>1Cultures and Civilization*</td>
<td>.6</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Second Year</th>
<th>Hours Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Music Theory 210, 220</td>
<td>3.3</td>
</tr>
<tr>
<td>Music Theory 230, 240</td>
<td>1.1</td>
</tr>
<tr>
<td>Musicology 210*, 220*</td>
<td>3.3</td>
</tr>
<tr>
<td>Music Performance 280</td>
<td>3.3</td>
</tr>
<tr>
<td>Music Ensemble</td>
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<tr>
<td>Music General 200</td>
<td>0.0</td>
</tr>
<tr>
<td>2Natural Sciences*</td>
<td>.3</td>
</tr>
<tr>
<td>Music Ensemble 399</td>
<td>1.1</td>
</tr>
<tr>
<td>Music Keyboard 340, 350</td>
<td>3.3</td>
</tr>
</tbody>
</table>

* Meets University General Education Requirement.
1 See Cultures and Civilizations – University General Education Requirement. Select two non-U.S. History courses on the list or two courses in a foreign language at the intermediate level.
2 See Natural Sciences – University General Education Requirement. Select two courses from the list. At least one of the courses must have a laboratory.
3 See Communicating Orally – University General Education Requirement. Select one course from the list.
4 See Social Sciences – University General Education Requirement. Select two courses from the list.
5 See Quantitative Reasoning – University General Education Requirement. Select one course from the list.

#### Sacred Music Concentration • Organ Track

<table>
<thead>
<tr>
<th>First Year</th>
<th>Hours Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>English 101*, 102*</td>
<td>3.3</td>
</tr>
<tr>
<td>Music Theory 110, 120</td>
<td>3.3</td>
</tr>
<tr>
<td>Music Theory 130, 140</td>
<td>1.1</td>
</tr>
<tr>
<td>Musicology 110*</td>
<td>.3</td>
</tr>
<tr>
<td>Music Performance 180</td>
<td>2.2</td>
</tr>
<tr>
<td>Music General 200</td>
<td>0.0</td>
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<tr>
<td>1Cultures and Civilization*</td>
<td>.3</td>
</tr>
<tr>
<td>Music Ensemble</td>
<td>1.1</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Second Year</th>
<th>Hours Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Music Theory 210, 220</td>
<td>3.3</td>
</tr>
<tr>
<td>Music Theory 230, 240</td>
<td>1.1</td>
</tr>
<tr>
<td>Musicology 210*, 220*</td>
<td>3.3</td>
</tr>
<tr>
<td>Music Performance 280</td>
<td>2.2</td>
</tr>
<tr>
<td>Music General 200</td>
<td>0.0</td>
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<tr>
<td>2Natural Sciences*</td>
<td>.3</td>
</tr>
<tr>
<td>Music Ensemble 399</td>
<td>1.1</td>
</tr>
<tr>
<td>Music Keyboard 340, 350</td>
<td>3.3</td>
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</tbody>
</table>

* Meets University General Education Requirement.
1 See Cultures and Civilizations – University General Education Requirement. Select two non-U.S. History courses on the list or two courses in a foreign language at the intermediate level.
2 See Natural Sciences – University General Education Requirement. Select two courses from the list. At least one of the courses must have a laboratory.
3 See Social Sciences – University General Education Requirement. Select two courses from the list.
4 See Quantitative Reasoning – University General Education Requirement. Select one course from the list.
5 See Communicating Orally – University General Education Requirement. Select one course from the list.
Fourth Year
Music Performance 490 ........................................ 2.2
Music General 495 ........................................... 3
Music Keyboard 410 ......................................... 1.1
Music Keyboard 460, 470 ..................................... 3.3
Music Ensemble ............................................... 1.1
Music General 200 ........................................... 0.0
Music General 401 ........................................... 0.0
Electives .................................................... 4.3

Social Sciences* ............................................... 3
Music Ensemble ............................................... 1.1
Musicology 110* ............................................. 3
Electives .................................................... 3

Total 120

* Meets University General Education Requirement.
1 See Quantitative Reasoning – University General Education Requirement. Select two courses from the list.
2 See Social Sciences – University General Education Requirement. Select two courses from the list.
3 To be chosen from Religious Studies 101*, 102*, 232, 322, 326, 351, 352, 355, 370, 425, 430.
5 Natural Sciences* .............................. 4.3
2 Social Sciences* .............................. 3
Electives .................................................... 2

Total 120

Requirements for the Bachelor of Music • Music Major
Sacred Music Concentration • Piano Track

First Year
English 101*, 102* ........................................ 3.3
Music Theory 110, 120 ..................................... 3.3
Music Theory 130, 140 .................................... 1.1
Musicology 110* ........................................... 3
Music Performance 189, 190 (Organ) ........... 1.1
Music Performance 180, 181 (Piano) .......... 2.2
Foreign Language (200-level sequence)* ...... 3.3
Music General 200 ....................................... 0.0

Second Year
Quantitative Reasoning* ................................ 3.3
Music Theory 210, 220 .................................... 3.3
Music Theory 230, 240 .................................... 1.1
Musicology 210*, 220* ................................... 3.3
Music Ensemble ............................................ 1.1
Music Performance 280, 281 (Piano) ........... 2.2
Music Performance 289, 290 (Organ) ......... 1.1
Music Keyboard 230 ...................................... 1
Music Keyboard 410 ...................................... 1
Music Education 200 ..................................... 1
Music General 200 ....................................... 0.0

Third Year
Social Sciences* ........................................... 3.3
Musicology 380* ........................................... 3
Music Theory 310 .......................................... 3
Music Theory 322, 326, 351, 352, 355, 370, 425, 430.
Music Performance 380, 381 (Piano) ........... 2.2
Music Ensemble ............................................ 1.1
Music General 200 ....................................... 0.0
Music General 301 ....................................... 0
Music Education 310, 320 ................................ 3.2
Music Performance 155, 156 or Music Voice 110, 120 1.1
Religious Studies* ...................................... 3

Fourth Year
Natural Sciences* ........................................... 4.3
Communicating Orally* .................................. 3.3
Music Keyboard 410 ...................................... 2
Music Keyboard 420 or 430 ......................... 3
Music General 495 ....................................... 3
Music Performance 155, 156 or 255, 256 (Voice) 1.1
Music Performance 480, 481 (Piano) .......... 2.2
Music Ensemble ............................................ 1.1
Music General 200 ....................................... 0.0
Music General 401 ....................................... 0.0
Electives .................................................... 1

Total 120

* Meets University General Education Requirement.
1 Piano majors take 4 hours of Music Ensemble 399 and 4 hours of Music Ensemble 380, 383, or 389.
2 See Quantitative Reasoning – University General Education Requirement. Select two courses from the list.
3 See Social Sciences – University General Education Requirement. Select two courses from the list.
5 See Natural Sciences – University General Education Requirement. Select two courses from the list. At least one of the courses must have a laboratory.
6 See Communicating Orally – University General Education Requirement. Select one course from the list.

Requirements for the Bachelor of Music • Music Major
Sacred Music Concentration • Voice Track

First Year
English 101*, 102* ........................................ 3.3
Music Theory 110, 120 ..................................... 3.3
Music Theory 130, 140 .................................... 1.1
Musicology 110* ........................................... 3
Music Performance 155 (Voice) ..................... 2.2
Music Ensemble ............................................ 1.1
Music Performance (200-level sequence)* .... 3.3
Music General 200 ....................................... 0.0

Second Year
Natural Sciences* ........................................... 4.3
Music Education 200 ..................................... 1
Music Theory 210, 220 .................................... 3.3
Music Theory 230, 240 .................................... 1.1
Musicology 210*, 220* ................................... 3.3
Music Performance ........................................ 1.1
Music Performance 255 ................................... 2.2
Music Voice 425 .......................................... 3
Music General 200 ....................................... 0.0

Third Year
Social Sciences* ........................................... 3.3
Musicology 380* ........................................... 3
Music Theory 310 .......................................... 3
Music Theory 322, 326, 351, 352, 355, 370, 425, 430.
Music Performance 380, 381 (Piano) ........... 2.2
Music Ensemble ............................................ 1.1
Music General 200 ....................................... 0.0
Music General 301 ....................................... 0
Music Education 310, 320 ................................ 3.2
Music Performance 155, 156 or Music Voice 110, 120 1.1
Religious Studies* ...................................... 3

Fourth Year
Quantitative Reasoning* ................................ 3.3
Music Performance 455 ................................... 2.2
Music Ensemble ............................................ 1.1
Music General 200 ....................................... 0.0
Music General 495 ....................................... 3
Music Voice 580-585 ................................... 2.2
Music Voice 450-460 ................................... 2.1
Music General 401 ....................................... 0
Religious Studies* ...................................... 3
Electives .................................................... 2

Total 120

* Meets University General Education Requirement.
1 Class Piano (Music Keyboard 110-120, 210-220) or Organ (Music Performance 190).
2 See Natural Sciences – University General Education Requirement. Select two courses from the list. At least one of the courses must have a laboratory.
3 See Social Sciences – University General Education Requirement. Select two courses from the list.
4 See Communicating Orally – University General Education Requirement. Select one course from the list.
5 See Quantitative Reasoning – University General Education Requirement. Select two courses from the list. At least one of the courses must have a laboratory.
6 To be chosen from Religious Studies 101*, 102*, 232, 322, 326, 351, 352, 355, 370, 425, 430.
## Requirements for the Bachelor of Music • Music Major
### Strings Concentration

<table>
<thead>
<tr>
<th>First Year</th>
<th>Hours</th>
<th>Credit</th>
</tr>
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<tbody>
<tr>
<td>English 101*, 102*</td>
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</tr>
<tr>
<td>Music Theory 110, 120</td>
<td>3.3</td>
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<tr>
<td>Music Theory 130, 140</td>
<td>1.1</td>
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<tr>
<td>Musicology 110*</td>
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</tr>
<tr>
<td>Music Keyboard 110, 120</td>
<td>1.1</td>
<td></td>
</tr>
<tr>
<td>Music Ensemble 370</td>
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<td></td>
</tr>
<tr>
<td>Music General 200</td>
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</tr>
<tr>
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### Second Year

<table>
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<th>Second Year</th>
<th>Hours</th>
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</tr>
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<tbody>
<tr>
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<tr>
<td>Music Theory 230, 240</td>
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<tr>
<td>Musicology 210*, 220</td>
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<tr>
<td>Music Performance (200 level)</td>
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<td>Music General 200</td>
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<tr>
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### Third Year

<table>
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<tr>
<td>Musicology 380*</td>
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<tr>
<td>Music Performance (300 level)</td>
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<tr>
<td>Music Ensemble 370</td>
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<td></td>
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<tr>
<td>Music Education 310</td>
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<td></td>
</tr>
<tr>
<td>Music General 200</td>
<td>0.0</td>
<td></td>
</tr>
<tr>
<td><strong>3Social Sciences</strong>*</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td><strong>4Communicating Orally</strong></td>
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<td></td>
</tr>
<tr>
<td>Music General 200</td>
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<tr>
<td>Music General 301</td>
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### Fourth Year

<table>
<thead>
<tr>
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<th>Hours</th>
<th>Credit</th>
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<td>Music Instrument 340, 350</td>
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</tr>
<tr>
<td>Music Ensemble 370</td>
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</tr>
<tr>
<td><strong>5Quantitative Reasoning</strong>*</td>
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</tr>
<tr>
<td>Music General 200</td>
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<td></td>
</tr>
<tr>
<td>Music General 401</td>
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<td></td>
</tr>
<tr>
<td><strong>1Natural Sciences</strong>*</td>
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</tr>
<tr>
<td>Electives</td>
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</table>

**Total 120**

* Meets University General Education Requirement.

1 See Natural Sciences – University General Education Requirement. Choose two courses from the list. At least one of the courses must have a laboratory.

2 See Cultures and Civilizations – University General Education Requirement. Select two courses on the list or two courses in a foreign language at the intermediate level.

3 See Social Sciences – University General Education Requirement. Select one course from the list.

4 See Communicating Orally – University General Education Requirement. Select one course from the list.

5 See Quantitative Reasoning – University General Education Requirement. Select two courses from the list.

### Requirements for the Bachelor of Music • Music Major
### Theory/Composition Concentration

<table>
<thead>
<tr>
<th>First Year</th>
<th>Hours</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>English 101*, 102*</td>
<td>3.3</td>
<td></td>
</tr>
<tr>
<td>Music Theory 110, 120</td>
<td>3.3</td>
<td></td>
</tr>
<tr>
<td>Music Theory 130, 140</td>
<td>1.1</td>
<td></td>
</tr>
<tr>
<td>Musicology 110*</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Musicology 380*</td>
<td>3</td>
<td></td>
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<tr>
<td>Music Performance (100 level)</td>
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</tr>
<tr>
<td>Music Ensemble 370</td>
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<tr>
<td>Music General 200</td>
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<td><strong>2Quantitative Reasoning</strong>*</td>
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### Second Year

<table>
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<tr>
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<th>Hours</th>
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<tbody>
<tr>
<td>Music Theory 210*, 220</td>
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<td>Music Performance 210*, 220</td>
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<tr>
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### Third Year

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<tr>
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<tbody>
<tr>
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<tr>
<td>Music Theory 420</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Musicology 380*</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Music Performance 210*</td>
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<td></td>
</tr>
<tr>
<td>Music General 200</td>
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</tr>
<tr>
<td><strong>4Area Study</strong></td>
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<tr>
<td><strong>5Natural Sciences</strong>*</td>
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<tr>
<td>Electives</td>
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### Fourth Year

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<tr>
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<tbody>
<tr>
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<td></td>
</tr>
<tr>
<td>Music Theory 420</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Musicology 380*</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Music Performance 210*</td>
<td>2.2</td>
<td></td>
</tr>
<tr>
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<tr>
<td><strong>5Electives</strong></td>
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</table>

* Meets University General Education Requirement.

1 See Social Sciences – University General Education Requirement.

2 See Natural Sciences – University General Education Requirement.

3 See Cultures and Civilizations – University General Education Requirement. Select two courses on the list or two courses in a foreign language at the intermediate level.

4 See Quantitative Reasoning – University General Education Requirement.

5 See Communicating Orally – University General Education Requirement. Select one course from the list.

### Requirements for the Bachelor of Music • Music Major
### Studio Music and Jazz Concentration

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<thead>
<tr>
<th>First Year</th>
<th>Hours</th>
<th>Credit</th>
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<tbody>
<tr>
<td>English 101*, 102*</td>
<td>3.3</td>
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</tr>
<tr>
<td>Music Theory 110, 120</td>
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<tr>
<td>Music Theory 130, 140</td>
<td>1.1</td>
<td></td>
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<tr>
<td>Musicology 110*</td>
<td>3</td>
<td></td>
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<tr>
<td>Musicology 380*</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Music Jazz 110</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>Music Jazz 130, 140</td>
<td>1.1</td>
<td></td>
</tr>
<tr>
<td>Music Performance 100 level</td>
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<td>Music Ensemble 370</td>
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<tr>
<td>Music General 200</td>
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### Second Year

<table>
<thead>
<tr>
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<th>Hours</th>
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<tbody>
<tr>
<td>Music Theory 210, 220</td>
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<td>Music Theory 230, 240</td>
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<tr>
<td>Musicology 210*, 220</td>
<td>3.3</td>
<td></td>
</tr>
<tr>
<td>Music Jazz 120</td>
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<tr>
<td>Music Jazz 210, 220</td>
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</table>
### Requirements for the Bachelor of Music • Music Major

#### • Voice Concentration

**First Year**

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours Credit</th>
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</thead>
<tbody>
<tr>
<td>English 101*, 102*</td>
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<tr>
<td>Music Theory 110, 120</td>
<td>3.3</td>
</tr>
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<td>Music Theory 130, 140</td>
<td>3.3</td>
</tr>
<tr>
<td>Musicology 110*</td>
<td>3.3</td>
</tr>
<tr>
<td>Music Performance 155</td>
<td>3.3</td>
</tr>
<tr>
<td>Music Ensemble</td>
<td>1.1</td>
</tr>
<tr>
<td>Music General 200</td>
<td>0.0</td>
</tr>
<tr>
<td>Music General 110</td>
<td>1.1</td>
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<tr>
<td>Electives</td>
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Total 120

**Second Year**

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours Credit</th>
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<tbody>
<tr>
<td>Music Theory 210, 220</td>
<td>3.3</td>
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<tr>
<td>Music Theory 230, 240</td>
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<tr>
<td>Musicology 210*, 220*</td>
<td>3.3</td>
</tr>
<tr>
<td>Music Performance 255</td>
<td>3.3</td>
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<tr>
<td>Music Ensemble</td>
<td>1.1</td>
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<tr>
<td>Music Keyboard 210, 220</td>
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<tr>
<td>Music General 200</td>
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<tr>
<td>Music Voice 240, 250</td>
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**Third Year**

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours Credit</th>
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<tbody>
<tr>
<td>Musicology 380*</td>
<td>3.3</td>
</tr>
<tr>
<td>Music Theory 310</td>
<td>3.3</td>
</tr>
<tr>
<td>Music Performance 355</td>
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<tr>
<td>Music Ensemble</td>
<td>1.1</td>
</tr>
<tr>
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<tr>
<td>Music General 301</td>
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<tr>
<td>Music Education 310</td>
<td>4.3</td>
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<tr>
<td>Electives</td>
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Total 120

**Fourth Year**

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours Credit</th>
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<tbody>
<tr>
<td>Music General 410, 420</td>
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<tr>
<td>Music Voice 450, 460</td>
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<tr>
<td>Music Performance 455</td>
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<td>Music Ensemble</td>
<td>1.1</td>
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<tr>
<td>Music Ensemble</td>
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<td>Music General 200</td>
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<tr>
<td>Music General 401</td>
<td>0.0</td>
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<tr>
<td>Electives</td>
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</tbody>
</table>

Total 123

* Meets University General Education Requirement.
2 See Quantitative Reasoning – University General Education Requirement.
3 See Cultures and Civilizations – University General Education Requirement. Select two courses from the list. At least one of the courses must have a laboratory.
4 See Social Sciences – University General Education Requirement.
5 See Communicating Orally – University General Education Requirement. Select one course from the list.
6 See Natural Sciences – University General Education Requirement. Select two courses from the list.

#### • Woodwind, Brass, and Percussion Instruments Concentration

**First Year**

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>English 101*, 102*</td>
<td>3.3</td>
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<tr>
<td>Music Theory 110, 120</td>
<td>3.3</td>
</tr>
<tr>
<td>Music Theory 130, 140</td>
<td>1.1</td>
</tr>
<tr>
<td>Musicology 110*</td>
<td>3.3</td>
</tr>
<tr>
<td>Music Performance (100 level)</td>
<td>3.3</td>
</tr>
<tr>
<td>Music Ensemble</td>
<td>1.1</td>
</tr>
<tr>
<td>Music General 110, 120</td>
<td>1.1</td>
</tr>
<tr>
<td>Cultures and Civilization*</td>
<td>3.3</td>
</tr>
<tr>
<td>Music General 200</td>
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</table>

**Second Year**

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Music Theory 210, 220</td>
<td>3.3</td>
</tr>
<tr>
<td>Music Theory 230, 240</td>
<td>1.1</td>
</tr>
<tr>
<td>Musicology 210*, 220*</td>
<td>3.3</td>
</tr>
<tr>
<td>Music Ensemble</td>
<td>1.1</td>
</tr>
<tr>
<td>Music Performance (200 level)</td>
<td>3.3</td>
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<tr>
<td>Music Ensemble</td>
<td>1.1</td>
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<tr>
<td>Music Keyboard 210, 220</td>
<td>1.1</td>
</tr>
<tr>
<td>Electives</td>
<td>3.3</td>
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<tr>
<td>Natural Sciences*</td>
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**Fourth Year**

<table>
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<th>Course</th>
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<tr>
<td>Music Education 310</td>
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<tr>
<td>Music General 401</td>
<td>0.0</td>
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<tr>
<td>Quantitative Reasoning*</td>
<td>6.0</td>
</tr>
<tr>
<td>Communicating Orally*</td>
<td>3.3</td>
</tr>
<tr>
<td>Electives</td>
<td>4.0</td>
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</tbody>
</table>

Total 120

* Meets University General Education Requirement.
1 See Cultures and Civilizations – University General Education Requirement. Select two courses from the list. At least one of the courses must have a laboratory.
2 See Social Sciences – University General Education Requirement. Select two courses from the list. At least one of the courses must have a laboratory.
3 See Quantitative Reasoning – University General Education Requirement. Select two courses from the list. At least one of the courses must have a laboratory.
4 See Communicating Orally – University General Education Requirement. Select one course from the list.
BACHELOR OF ARTS DEGREE • MUSIC MAJOR

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

Requirements Bachelor of Arts • Music Major

<table>
<thead>
<tr>
<th>Prerequisites</th>
<th>Hours</th>
<th>Credit</th>
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</thead>
<tbody>
<tr>
<td>Music Theory 110, 120</td>
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<td>3.3</td>
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<td>Music Theory 130, 140</td>
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Courses toward the major

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<tr>
<th>Prerequisites</th>
<th>Hours</th>
<th>Credit</th>
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<tbody>
<tr>
<td>Music Theory 210, 220</td>
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<td>Music Theory 230, 240</td>
<td>1.1</td>
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</tr>
<tr>
<td>Musicology 110*</td>
<td></td>
<td>3.3</td>
</tr>
<tr>
<td>Musicology 210*, 220*</td>
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<td>3.3</td>
</tr>
<tr>
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<td>1.1, 1</td>
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<td>Music Theory 310</td>
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<td>Musicology 350 or 380</td>
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<tr>
<td>Music Electives</td>
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</table>

Total 45-48

This degree requires a minimum of 120 hours as structured by the requirements outlined for the Bachelor of Arts degree with the College of Arts and Sciences. See the Undergraduate Catalog for further details.

1 Students must complete a minimum of four semesters of Music Performance at the 200 level or above.
2 Music General 200 must be completed a minimum of four semesters.
4 Select from Music General 301(O), 411(O); Music Theory 493(3); Musicology 460(3), 493(3).

MUSIC AND CULTURE CONCENTRATION

Requirements Bachelor of Arts • Music Major • Music and Culture Concentration

<table>
<thead>
<tr>
<th>Prerequisites</th>
<th>Hours</th>
<th>Credit</th>
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<tbody>
<tr>
<td>Music Theory 110, 120</td>
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<tr>
<td>Music Theory 130, 140</td>
<td>1.1</td>
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<td>Musicology Course (100 level)</td>
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<td>1Intro Culture Course (100 level)</td>
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<td>Music Theory 210</td>
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<td>Music Theory 230</td>
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<td>Music Jazz 110 or Music Theory 220</td>
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<tr>
<td>Music Ensemble</td>
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<tr>
<td>Music Performance (200 level or above)</td>
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<tr>
<td>Musicology 290</td>
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</table>

Total 47-48

This degree requires a minimum of 120 hours as structured by the requirements outlined for the Bachelor of Arts degree with the College of Arts and Sciences. See the Undergraduate Catalog for further details.

1 To be chosen from Anthropology 130, Sociology 120, Asian Studies 101 or 102, Religious Studies 101 or 102, or by approval of musicology faculty.

Minor in Music

Applied Music

The minor concentration in applied music consists of 15 hours in courses numbered 200 and above.

<table>
<thead>
<tr>
<th>Prerequisites</th>
<th>Hours</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
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Required Courses

<table>
<thead>
<tr>
<th>Prerequisites</th>
<th>Hours</th>
<th>Credit</th>
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<tbody>
<tr>
<td>Musicology 210 or 220</td>
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</tr>
<tr>
<td>Musicology 290</td>
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<tr>
<td>Music Electives</td>
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</tbody>
</table>

Musicology

The Minor concentration in musicology consists of 17 hours in courses numbered 200 and above.

<table>
<thead>
<tr>
<th>Prerequisites</th>
<th>Hours</th>
<th>Credit</th>
</tr>
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<tbody>
<tr>
<td>Musicology 100-level course</td>
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<td>Music Theory 100 or 105</td>
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<tr>
<td>Music Performance 100-level</td>
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<td></td>
</tr>
</tbody>
</table>

DEPARTMENT OF PHILOSOPHY

http://web.utk.edu/~philosoph/

John R. Hardwig, Head

Professors

Aquila, R.E., PhD .................................................. Northwestern
Cohen, S.M., PhD .................................................. Northwestern
Graber, G.C., PhD .................................................. Michigan
Hardwig, J.R., PhD .................................................. Texas
Nolt, J.E., PhD .................................................. Ohio State
Postow, B.C., PhD .................................................. Yale

Associate Professors

Bohstedt, K.E., PhD ................................. Ohio State
Hamlin, H.P., PhD .................................................. Georgia

Assistant Professors

Davis, J.K., JD, PhD ........................................ Washington
Douglas, H., PhD .................................................. Pittsburgh
Reidy, D.A., JD, PhD ........................................ Kansas

Adjunct Faculty

Gale, R.M., PhD .................................................. New York

Philosophy as a discipline, in western civilization, has its roots in the thought of ancient Greece, which posed three questions which philosophers have ever since attempted to answer: (1) What is real? (2) How do we know? (3) What should we do? (metaphysics, epistemology, ethics, respectively). The department’s program is designed to introduce students to this rich tradition of thought and speculation. Such an introduction will provide them with an understanding of the development of the thought of their civilization and thus prepare them to participate thoughtfully and critically in our complex, modern society. Students taking philosophy courses will develop skills in critical thinking, argumentation, reading, and writing.
PHILOSOPHY MAJOR

Prerequisites
Three hours of logic, normally 130 or 135.

Requirements
Twenty-four hours of courses numbered 200 or above, including 3 hours of ethics (normally 340 or 440) and 6 hours in the history of philosophy (3 in ancient, normally 320, and 3 in modern, normally 324). At least four of the courses for the major must be at the 300-level or above, of which at least one must be at the 400-level or above. Majors are required to discuss their programs with a member of the philosophy faculty.

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

DEPARTMENT OF PHYSICS AND ASTRONOMY

http://www.phys.utk.edu/

Soren P. Sorensen, Head

Professors
Barnes, F.E. (Joint Faculty), PhD..........................California
Bingham, C.R., PhD ........................................Tennessee
Blass, W.E., PhD ..............................................Michigan State
Brening, M.J., PhD .......Oregon
Calcutt, T.A., PhD .............................................Purdue
Compton, R.N., PhD .........................................Kentucky
Craig, H.W. (UTSI), PhD ..........................Yale
Dagotto, E.R. (Distinguished Professor), PhD ...Bariloche (Argentina)
Eguiluz, A.G. (Joint Faculty), PhD ........................Brown
Elston, S.B., PhD ..................................................Massachusetts
Georgiou, S., PhD ..........................California Institute of Technology
Guidry, M.W., PhD ...........................................Harvard
Handter, T., PhD ..............................................Rutgers
Kamakshkkov, I., PhD ...........................ITEP (Russia)
Levin, J.C., PhD .................................................Oregon
Lewis, J.W.L. (Distinguished Professor, UTSI), PhD ...................Mississippi
Macek, J. (Distinguished Professor), PhD ...Rensselaer Polytechnic Institute
Moreo, A. (Joint Faculty), PhD ........................Bariloche (Argentina)
Nazarov, W., PhD .............................................Warsaw (Poland)
Painter, R. P., PhD .................................Michigan State
Pegg, D.J., PhD .................................................New Hampshire
Plummer, E.W. (Distinguished Professor), PhD ....................Cornell
Quinn, J.J. (Lincoln Chair), PhD ..............................Maryland
Read, K.F. (Joint Faculty), PhD ..................Cornell
Riedinger, L.L., PhD ..............................................Vanderbilt
Shih, C.C., PhD ..............................................Cornell
Siopsis, G., PhD ............................California Institute of Technology
Sorensen, S.P., PhD ..............................................Copenhagen (Denmark)
Thompson, J.R., PhD ......................................Duke
Weitering, H.H. (Joint Faculty), PhD .................Groningen (Netherlands)
Zhang, Z. (Joint Faculty), PhD ..............................Rutgers

Associate Professors
Dai, P., PhD ..................................................Missouri
Davis, L. (UTSI), PhD ......................................Auckland (New Zealand)
Efremenko, Y.Y. (Joint Faculty), PhD ........................ITEP (Russia)
Parigger, C. (UTSI), PhD .....................................Otago (New Zealand)

Assistant Professors
Barzykin, V., PhD ...............................................Illinois
Grzywacz, R., PhD ..............................................Warsaw (Poland)
Papenbrock, T.F. (Joint Faculty), PhD ............Heidelberg (Germany)
Spanier, S.M., PhD ............................................Mainz (Germany)

Director of Undergraduate Laboratories
Parks, J.E., PhD ..............................................Kentucky

Physics is the study of matter and energy and their interactions from microscopic to macroscopic regimes. It is the most fundamental physical science in the sense that the laws of physics form the foundation of all natural sciences. The undergraduate physics major provides a thorough introduction to the core areas of physics while offering students flexibility to pursue special interests through our academic, applied, or general concentrations. The academic concentration is intended for students interested in professional employment or graduate work in physics or closely related fields such as astronomy, engineering, laser technology, or computational science. The applied concentration introduces students to the physics and technology of today and tomorrow. Such a broad physics background is increasingly useful in technological and industrial fields outside of physics. The general concentration is intended for students who wish to apply a substantial knowledge of physics to fields such as secondary education, medicine, law, journalism, business, or any field of their choice.

PHYSICS MAJOR

Physics 137-138 or 135-136; Mathematics 141-142 and Computer Science 102 are prerequisites to the major.

ACADEMIC CONCENTRATION

The academic concentration consists of 41 hours. Mathematics 231 and 241; Physics 240, 311-312, 321, 361, 411-412, 421, 431-432, and 461. Physics 401 is recommended.

APPLIED CONCENTRATION

The applied concentration consists of 41 hours. Mathematics 241; Physics 240, 311-312, 321, 361, 401, 421, 441-442, 453-454 and 461.

GENERAL CONCENTRATION

The general concentration consists of 40-41 hours. Mathematics 241; Physics 240, 311, 321 and 361; one lab course, chosen from 421, 453, and 461; and three core courses chosen from 312, 411, 412, 431, 432, 441, 442. In addition, 12 coordinated hours in an area of the student’s special interest are to be chosen by the student in consultation with a departmental advisor.

HONORS ACADEMIC AND HONORS APPLIED CONCENTRATIONS

Students who complete all requirements for the academic or applied concentrations will be awarded a degree with Honors if their cumulative GPA is at least 3.0, their GPA in 300- and 400-level mathematics and physics courses is at least 3.5, and they complete a written senior thesis reporting results of research conducted under faculty supervision and defended before a committee of three physics faculty members. A minimum of 3 credit hours of Physics 493 is required.

Minor in Astronomy
An astronomy minor consists of 24 hours. One year of introductory astronomy, Astronomy 411, 490 (3), Physics 311-312, and 421.

Minor in Physics
A physics minor consists of 23-25 hours. Physics 137-138, 240, or 135-136, 240 and 12 hours from physics and astronomy courses numbered 300 and above.
DEPARTMENT OF POLITICAL
SCIENCE
http://web.utk.edu/~polisci/
David L. Feldman, Head

Professors
Cunningham, R.B., PhD ........................................ Indiana
Feldman, D.L., PhD ........................................ Missouri
Fitzgerald, M.R., PhD ........................................ Oklahoma
Folz, D.H., PhD ........................................ Tennessee
Freeland, P.K., PhD ........................................ Wisconsin
Gant, M.M., PhD ........................................ Michigan State
Gorman, R., PhD ........................................ New York
Lyons, W., PhD ........................................ Oklahoma
Scheb, J.M., PhD ........................................ Florida

HONORS CONCENTRATION
The honors concentration encourages highly motivated students to obtain a superior liberal education and more rigorous preparation in the discipline. Admission is selective. The honors concentration is normally a two-year program. Political Science 101 or 107, and 102 are prerequisites. The concentration consists of 27 hours of courses numbered 300 or above, including 387, 388, 487, and 488. These 27 hours must include at least one course in each of the four areas of the discipline. Political Science 387 and 388 may be used to satisfy this requirement in the appropriate area.

To graduate with honors in political science, the student must have a minimum GPA of 3.3 in political science, and a minimum cumulative GPA of 3.0.

PUBLIC ADMINISTRATION CONCENTRATION
Students majoring in political science who wish to prepare for a career in public service may select the concentration in public administration. Political Science 101 or 107, 102 and Economics 201 are prerequisites to the major in political science with a concentration in public administration. The concentration consists of 27 hours of coursework in political science, economics, and accounting. Students must complete Political Science 340 and 401; two courses from Political Science 440, 441, 442; and two courses from Accounting 200 or 207, Economics 371, 472. Students must also include one course in each of the three remaining fields of political science (comparative government and politics, international relations, and political theory).

Minor in Political Science
Prerequisites to the minor are Political Science 101 or 107 and 102. The minor consists of 15 hours of courses numbered 300 and above.

DEPARTMENT OF PSYCHOLOGY
http://psychology.utk.edu
James E. Lawler, Head

Professors
Burghardt, G.M. (Alumni Distinguished Professor), PhD ........................................ Chicago
Handler, L., PhD ........................................ Michigan State
Hector, M., PhD ........................................ Michigan State
Jones, W.H., PhD ........................................ Oklahoma State
Lawler, J.E., PhD ........................................ North Carolina
Leong, F.T.L., PhD ........................................ Maryland
Lounsbury, J.W., PhD ........................................ Michigan State
Lubar, J., PhD ........................................ Duke
Mann, A., PhD ........................................ Ohio
Morgan, W.G., PhD ........................................ Tennessee

Associate Professors
Hutchens, T., PhD ........................................ Georgia
Gaertner, L., PhD ........................................ Geneva (Switzerland)
Gordon, K., PhD ........................................ North Carolina
Hopko, D., PhD ........................................ West Virginia
Hutchens, T., PhD ........................................ Georgia
Lawler, J.E., PhD ........................................ North Carolina
Leong, F.T.L., PhD ........................................ Maryland
Lounsbury, J.W., PhD ........................................ Michigan State
Lubar, J., PhD ........................................ Duke
Mann, A., PhD ........................................ Ohio
Morgan, W.G., PhD ........................................ Tennessee
Welsh, D.P., PhD ........................................ Massachusetts

Assistant Professors
Freeberg, T.M., PhD ........................................ Indiana
Hickey, F., PhD ........................................ Indiana
Lawler, J.E., PhD ........................................ North Carolina
Lounsbury, J.W., PhD ........................................ Michigan State
Lubar, J., PhD ........................................ Duke
Mann, A., PhD ........................................ Ohio
Morgan, W.G., PhD ........................................ Tennessee

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Lubar, J., PhD ........................................ Duke
Mann, A., PhD ........................................ Ohio
Morgan, W.G., PhD ........................................ Tennessee

Associate Professors
Hutchens, T., PhD ........................................ Georgia
Gaertner, L., PhD ........................................ Geneva (Switzerland)
Gordon, K., PhD ........................................ North Carolina
Hopko, D., PhD ........................................ West Virginia
Hutchens, T., PhD ........................................ Georgia
Lawler, J.E., PhD ........................................ North Carolina
Leong, F.T.L., PhD ........................................ Maryland
Lounsbury, J.W., PhD ........................................ Michigan State
Lubar, J., PhD ........................................ Duke
Mann, A., PhD ........................................ Ohio
Morgan, W.G., PhD ........................................ Tennessee
Welsh, D.P., PhD ........................................ Massachusetts

Assistant Professors
Freeberg, T.M., PhD ........................................ Indiana
Hickey, F., PhD ........................................ Indiana
Lawler, J.E., PhD ........................................ North Carolina
Lounsbury, J.W., PhD ........................................ Michigan State
Lubar, J., PhD ........................................ Duke
Mann, A., PhD ........................................ Ohio
Morgan, W.G., PhD ........................................ Tennessee

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Minor in Political Science
Prerequisites to the minor are Political Science 101 or 107 and 102. The minor consists of 15 hours of courses numbered 300 and above.
PSYCHOLOGY MAJOR
Prerequisites are one year of a biological science (e.g., Biology 101-102), Psychology 110 with a grade of C or better, and a GPA of at least 2.00.
The major consists of 24 hours of Psychology at the 200 level or higher.
• Either Psychology 295 or Psychology 395 (prerequisites to Psychology 395 are Psychology 385 or Statistics 201 or Mathematics 115).
• Three courses from Psychology 210, 220, 300, 310, 320, 330, 360, 370.
• Two additional psychology courses at the 300 level or higher.
• Two additional psychology courses at the 400 level.
No more than 6 hours of 399, 489, 491, 492, 493 may be used in this major. Continuation in the psychology major requires maintenance of a GPA of 2.00. Students placed on Academic Review will be informed in writing that they are on probation and their records will be reviewed. Students who continue on Academic Review will be dropped from the major.

HONORS CONCENTRATION
The Psychology Department offers an honors concentration that is a specially designed individualized mentorship program. Chancellor's Honors students and psychology majors with ACT scores of 29 or higher (or SAT equivalent) may apply. Admission to the program will be on the basis of the review of the candidate's application and interview by the Psychology Honors Faculty, normally in the student's second year. Any semester with a GPA below 3.2 will lead to consideration of a student's dismissal from the program by the program faculty. The honors concentration includes all the requirements of the psychology major and at least 10 hours of upper-division psychology honors courses, including at least 4 hours of Psychology 347 (continuous registration is preferred), 3 hours of Psychology 367, and 3 hours of Psychology 467.

Minor in Psychology
The minor consists of 110 or equivalent and 15 additional hours at the 300 level and above. (Psychology 399, 489, 491, 492, 493 cannot be used in this minor.)

DEPARTMENT OF RELIGIOUS STUDIES
http://web.utk.edu/~religion
Gylya G. Schmidt, Head

Professors
Fitzgerald, J.L., PhD ...........................................Chicago
Hackett, R.I., PhD ............................................Aberdeen (UK)
Levering, M.L., PhD ............................................Harvard
Reynolds, C.H., PhD ..........................................Harvard
Schmidt, G.G., PhD ............................................Pittsburgh

Associate Professors
Gwynne, R.W., PhD ..........................................Washington
Hodges, J.O., PhD ............................................Chicago
Hulsether, M.D., PhD .........................................Minnesota

Assistant Professors
Jacobs, R., PhD ................................................Northwestern
Shepardson, C.C., PhD ......................................Duke
Stiebert, J., PhD ................................................Glasgow (UK)

Adjunct Faculty
Helferman, T.J.A., PhD ......................................Cambridge (UK)

The mission of the Department of Religious Studies is the academic study of the role of religion in history and culture. It also requires an awareness that the literature and history and sensibilities of western European humanity are incomplete unless they are studied with those of other past and present cultures and civilizations.

RELIGIOUS STUDIES MAJOR
Majors will be required to take 27 hours, all of which must be at the 300 level or above, including Religious Studies 300; two courses from categories 1, 2, and 3; one course from category 4; and one 400-level course. The major shall not include related language courses. The two courses required in categories 1, 2, and 3 must be from two different subcategories within those categories.

1. West Asia and Europe (choose one from two subcategories)
   Judaism – choose from 311, 312, 381, 385, 386.
   Christianity – choose from 321, 322.
   Islam – choose from 332, 333.

2. Africa and the Americas (choose one from two subcategories)
   African Religions – choose from 302, 373.
   North American Religions – choose from 351, 355.
   African-American and African Diaspora Religions – choose from 352, 353.

3. South, Southeast, and East Asia (choose one from two subcategories)
   South Asia – choose from 313, 374, 376.
   Southeast Asia – choose from 376, 378, 382.
   East Asia – choose from 379, 380, 383, 384.

4. Methods and Issues in Religious Studies (choose one)
   Choose from 301, 302, 305, 320, 342.

Details regarding the major and religious studies courses are available in the departmental office, located in 501 McClung Tower, or from any member of the religious studies faculty.

Minor in Religious Studies
The minor consists of 15 hours of courses at the 300 level or above, not including related language courses. It is recommended that students minorin religious studies discuss their program with a faculty member in the department.

DEPARTMENT OF SOCIOLOGY
http://web.utk.edu/~utsocdep/
R. Scott Frey, Head

Professors
Frey, R.S., PhD ....................................................Colorado State
Hastings, D.W., PhD ..........................................Massachusetts
Jalata, A., PhD ..................................................State University of New York (Binghamton)
Shover, N.E., PhD .............................................Illinois

Associate Professors
Bohan, S., PhD .......................................................Penn State
Cable, S., PhD .......................................................Penn State
Dahms, H., PhD .................................................New School for Social Research
Jones, R.E., PhD ..................................................Washington State
Kurth, S.B., PhD ................................................Illinois (Chicago)
Shefner, J., PhD ...................................................California (Davis)

Assistant Professors
Bui, H., PhD .......................................................Michigan State
Gellert, P., PhD ....................................................Wisconsin
Presser, L., PhD ....................................................Cincinnati

The undergraduate program curriculum emphasizes the theme of social justice. Through coursework in the interest areas of criminal justice, political economy, social psychology and environmental issues and globalization, students develop an understanding of everyday social behavior as well as the structural factors that contribute to inequalities across various status hierarchies such as race, ethnicity, class, gender, age and lifestyle. Students also acquire an awareness of the competing perspectives that exist within societies, the ability to critically analyze social trends, and the tools to evaluate social policies.
SOCIOLOGY MAJOR
Before applying to the Sociology Department for admission to the major, a student must complete either Sociology 110 or 120 or their honors equivalent with a grade of C+ or above. Upon granting admission to the major, the department will assign the student an academic advisor who will help the student plan a program of study for the major. Prerequisites to the major are 3 lower-division hours in sociology (either 110 or 120 or their honors equivalent) and Statistics 201. The major consists of 27 upper-division hours in sociology and must include 321 and 331 and at least two 400-level courses.

CRIMINAL JUSTICE CONCENTRATION
All prerequisites and upper-division courses required for general majors are required for this concentration. In addition, the concentration consists of 21 hours of upper-division sociology as follows – 350, 351, 451; one of the five following courses 452, 453, 455, 459, 495; and three courses selected in consultation with advisor.

ENVIRONMENTAL ISSUES AND GLOBALIZATION CONCENTRATION
All prerequisites required for the major are required for this concentration. The concentration in environmental issues and globalization consists of Sociology 321 and 331 and 21 hours of upper-division sociology courses as follows – 360; either 442 or 446; two courses from 344, 464, and 465; and three courses selected in consultation with advisor.

Minor in Sociology
The minor consists of 15 upper-division hours in sociology and must include 321 and 331. Prerequisites to the minor are either Sociology 110 or 120 or their honors equivalent and Statistics 201.

Minor in Sociology with Concentration in Environmental Issues and Globalization
The minor consists of 15 hours including Sociology 321, 331, 360 and two courses from 344, 442, 446 and 465. Prerequisite to the minor are either Sociology 110 or 120 and Statistics 201.

DEPARTMENT OF STATISTICS
See faculty list in the College of Business Administration.
Arts and Sciences 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.

STATISTICS MAJOR
Prerequisites to the major are Mathematics 141-142. The major requires 33 semester hours including the following.
- Statistics 201 or 251.
- Statistics 320, 330, 365, 471.
- Two courses selected from Statistics 472, 473, 474, 475; Mathematics 423, 424, 425.
- Mathematics 241-251 or upper-division mathematics.
- Two technical electives to be selected from upper-division courses in mathematics, computer science, engineering, physics, or chemistry, with the approval of the student’s advisor in the Department of Statistics.