M.B.A. program. The admission decision will be made by January of the third year. Upon admission, students will begin M.B.A. coursework in the fourth year and be awarded a B.A. degree at the end of that year. Upon successful completion of the fifth year the student will receive the M.B.A. degree.

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<thead>
<tr>
<th>Hours Credit</th>
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<tbody>
<tr>
<td><strong>Freshman</strong></td>
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<tr>
<td>Freshman English</td>
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<tr>
<td><em>Foreign Language</em></td>
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<tr>
<td><em>Mathematics</em></td>
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<tr>
<td><em>Non-U.S. History</em></td>
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<tr>
<td><em>Natural Science</em></td>
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<tr>
<td><em>Sophomore</em></td>
</tr>
<tr>
<td><em>Social Sciences</em> electives</td>
</tr>
<tr>
<td>Humanities Part I</td>
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<tr>
<td>Humanities Part II</td>
</tr>
<tr>
<td><em>Electives</em></td>
</tr>
<tr>
<td>Upper division distribution</td>
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<td>Total: 27</td>
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**PRE-MEDICAL PROGRAM**

The college offers a three-year program leading to a B.S. degree and a four-year program leading to a Bachelor of Arts or Science degree for students preparing for the study of medicine. Both programs are based upon the program outlined below. In the three-year program the student must complete at least 93 credit hours while enrolled in the college, and the B.S. degree is granted upon satisfactory completion of the first year of study at UT-Memphis. In the four-year program the degree is granted upon completion of 124 or more credit hours while enrolled in the college. 

**PRE-PHARMACY PROGRAMS**

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

**HOURS AND CREDIT**

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<tr>
<th>Hours Credit</th>
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<tbody>
<tr>
<td><strong>Freshman</strong></td>
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<tr>
<td>English 101, 102 or equivalent</td>
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<td><em>Biology 110-120 or Zoology 117-127</em></td>
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<td>or Biology 150</td>
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<td>Chemistry 120-130</td>
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<td>Mathematics</td>
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<td>Electives</td>
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<td><strong>Sophomore</strong></td>
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<tr>
<td><em>Chemistry 350, 360, 369</em></td>
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<td><em>Physics 221, 222</em></td>
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<tr>
<td><em>Divisional Distribution (D) Humanities Part I</em></td>
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<tr>
<td><em>Divisional Distribution (A) Non U.S. History</em></td>
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<tr>
<td><em>Basic Skills (B) Foreign Language (Intermediate Level Sequence)</em></td>
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<tr>
<td>Junior</td>
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<tr>
<td><em>Divisional Distribution (D) Humanities Part II</em></td>
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<tr>
<td><em>Divisional Distribution (C) Social Sciences</em></td>
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<tr>
<td><em>Upper Level Distribution (A) U.S. Studies, (B)</em></td>
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<tr>
<td>Foreign Studies or (C) Capstone Experience</td>
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<tr>
<td>Electives</td>
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<th>Hours Credit</th>
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<td><strong>Sophomore</strong></td>
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<td>Accounting 201</td>
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<td>Psychology 110</td>
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<td>Accounting 301</td>
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<tr>
<td>Management 505</td>
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<td>Economics 501</td>
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<td>Marketing 501</td>
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<tr>
<td>Completion of major program and B.A./B.S. requirements or completion of one year at UT-Memphis</td>
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<td>Total: 124 Minimum hours</td>
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</table>
Humanities requirements; not more than 3 credits may be taken in the Arts.
*The remaining hours may include courses from economics, history, political science, psychology, and sociology. BA students must complete a minimum of 12 credits from at least two areas; BS students must complete a minimum of 6 credits from at least two areas for the Social Science requirement.
*BA students must complete a minimum of 6 credits in one of the three areas; BS students must complete a minimum of 6 credits in two of the three areas.
*Depending upon course selection, a student may require less than the listed elective hours to reach the minimum total of 93 hours. Recommended electives include courses in computer science, and business administration, particularly accounting, economics, and marketing.

PRE-TEACHING PROGRAMS FOR PROSPECTIVE K-8 TEACHERS

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

To be licensed for teaching, students must also gain formal admission, normally by the end of the sophomore year, to the Teacher Education Program in the College of Education. This involves completing a series of requirements, including presentation of satisfactory scores on certain tests, completing professional courses in Education, maintenance of a 2.0 or higher GPA and completing a fifth year program that emphasizes practical application. For details, see The College of Education section of the Undergraduate Catalog and contact the Education Advising Center, 214 Claxton Addition.

PRE-TEACHING SCIENCE AND MATHEMATICS OPTIONS: BACHELOR OF SCIENCE

(1) Environmental Science
This concentration should develop the knowledge and understanding of the environmental sciences appropriate to the needs of the teacher in grades K-8. The prerequisite courses assure that the student has an adequate background in the biological, chemical and physical sciences to proceed to upper division courses in each of the chosen areas of concentration. The core curriculum stresses the interrelatedness of biological and physical systems. The two tracks beyond the core stress the two major emphases of the ecological sciences—the biological and the chemical-physical. The student choosing to emphasize the chemical-physical track should be prepared to teach courses in biological science through the middle school years. The student choosing to emphasize the chemical-physical track should be prepared to teach general and earth science through the middle school years.

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

1. Mathematics 121-115 (3,3) or Mathematics 121-122 (3,3) or Mathematics 141-142 (4,4) or Mathematics 151-152 (3,3)
2. Chemistry 100-110 (4,4) or Chemistry 120-120 (4,4)
3. Biology 110-120 (4,4) or Botany 110-120 (4,4) or Zoology 117-118 (4,4)

Total: 22-24 hours

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

Beyond the core curriculum, the student must choose to follow either a Biological Sciences track (12 hours) or a Physical-Chemical Sciences track (12 hours).

A. Biological Sciences Track (At least 12 hours chosen from the following): Botany 305: Socio-Economic Impact of Plants (3); Botany 310: Plants: Evolutionary Survey I (3); Botany 320: Plants: Evolutionary Survey II (3); Botany 330: Field Botany (4); Botany 346: Introduction to Oceanography (3); Botany 431: Plant Ecology (3); Botany 451: Plant Tissue Culture (3); Ecology 370: Environment and Conservation (2); Forestry, Wildlife and Fisheries: Dendrology, Ecology, Silvics (3); Geography 435: Biogeography (3); Geology 320: Paleobiology (3); Geology 420: Paleocology (4); Geology 426: Paleobotany and Palynology (3); Microbiology 310-19: Introduction to Microbiology and Lab (3,1); Zoology 380: General Entomology (3); Zoology 450-455: Comparative Animal Behavior and Lab (3,3); Zoology 470: Aquatic Ecology (3); Zoology 473: Herpetology (3); Zoology 474: Ichthyology (3); Zoology 475: Ornithology (3); Zoology 476: Mammalogy (3).

B. Physical-Chemical Sciences Track (at least 12 hours chosen from the following): Biochemistry 310: Introduction to Biochemistry (3); Chemistry 350-360-369: Organic Chemistry and Lab (3,3,2), Ecology 370: Environment and Conservation (2); Geography 334: Meteorology (3); Geography 433: Land Surface System (3); Geography 434: Climatology (3); Geography 436: Water Resources (3); Geology 203: Geology of National Parks (3); Geology 325: Geological History of Land Organisms (3); Geology 450: Process Geomorphology (3); Geology 455: Basic Environmental Geology (3); Geology 485: Principles of Geohydrology (3)

Total: 26-28 hours

(2) Science
This concentration should develop the knowledge and understanding of the sciences appropriate to the needs of the teacher in grades K-8. The curricular requirement that the student take courses in both biological science (anthropology, biochemistry, biology, botany, microbiology, psychology, zoology) and in physical science (chemistry, geophysics, geology, physics) in addition to the 13 hours in the core curriculum is designed to fulfill the state competencies for I General Science and Physical Science and II Biology.

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

1. Mathematics 121-115 (3,3) or Mathematics 121-122 (3,3); or Mathematics 141-142 (4,4) or Mathematics 151-152 (3,3)
2. Chemistry 100-110 (4,4) or Chemistry 120-120 (4,4)
3. Biology 110-120 (4,4) or Zoology 117-118 (4,4) or Botany 110-120 (4,4)

Total: 22-24 hours

a. Core courses:
1. Two of the following three courses must be taken: Biology 210: Cell Biology (4); Biology 220: General Genetics (4); Biology 230: General Ecology (4)
2. One from among the following: Astronomy 161-162 (4,4) or Geography 131-132 (4,4) or Geology 101-102 (4,4)
3. Philosophy 360: Introduction to the Philosophy of Science (3)

Total: (part a) 19 hours

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

b. Biological Sciences
+Anthropology 210: Principles of Biological Anthropology (3); +Anthropology 464: Principles of Zoology (3); +Anthropology 480: Human Osteology (3); +Anthropology 490: Primate Evolution (3); +Anthropology 495: Human Paleontology (3); +Anthropology 496: Biology of Human Variability (3); +Biochemistry 310: Introduction to Biochemistry (3); Of the following three courses you may choose one or two: Botany 305: Socio-Economic Impact of Plants (3); Botany 306: Genetics and Society (3); Botany 309: Biology of Human Affairs (3); Botany 310: Plants: Evolutionary Survey I (3); Botany 320: Plants: Evolutionary Survey II (3); Botany 321: Introductory Plant Physiology (3); Botany 330: Field Botany (4); Geology 201: Fossils and the Meaning of Evolution (3); Geology 320: Paleobiology (3); Geology 420: Paleocology (4); Microbiology 201: General Microbiology (3); Microbiology 310-319: Introduction to Microbiology and Lab (3,1); Psychology 210: Biological Basis of Behavior (3); Psychology 370: Ethology and Sociobiology (3); +Psychology 410: Sensory Processes and Perception (3); +Psychology 461: Physiological Psychology (3); Zoology 230: Human Physiology (5); Zoology 240: Human Anatomy (3); Zoology 330-331: Animal Development and Embryology and Lab (3,2); Zoology 350: Comparative Vertebrate Biology (4); Zoology 360: Comparative Invertebrate Biology (4); Zoology 380: General Entomology (3); Zoology 450-459: Comparative Animal Behavior and Lab (3,3); Zoology 473: Herpetology (3); Zoology 474: Ichthyology (3); Zoology 476: Mammalogy (3).

Course has prerequisite other than course prerequisite to this major. See catalog for details.
c. Physical Sciences
Chemistry 350-360-369: Organic Chemistry and Lab (3,3,2); Geography 334:
Meteorology (3); Geography 433: The Land-Surface System (3); Geography 434: Climate (3); Geography 435; Biogeography (3); Geography 436: Water Resources (3); +Geography 445; Geography of Resources (3); Geology 203; Geology of Natural Parks (3); Geology 310: Mineralogy (3); Geology 330: Igneous and Metamorphic Petrology (3); Geology 340: Stratigraphy and Sedimentation (3); Geology 346: Introduction to Oceanography (3); Geology 370: Structural Geology (4); Geology 380: Resource Crises-Minerals and Energy (3); Physics 131-132: Fundamentals of Physics (4,4) or Physics 141-142: Nature of the Physical World (3,3) or Physics 221-222: Elements of Physics (4,4).

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

Total: (parts b and c) 12 hours

(3) Mathematics

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

Mathematics 115: Statistical Reasoning (3); Mathematics 130: Precalculus I (3); Mathematics 141-142: Calculus I and II (4,4); Mathematics 221: Discrete Mathematics (3); Mathematics 241: Calculus III (3); Mathematics 251: Matrix Algebra (3); Mathematics 323: Probability (3); Mathematics 400: History of Mathematics (3); Mathematics 401: Math and Microcomputing (3); Mathematics 460: Geometry (3).

Total: 35 hours

(4) Mathematics and Science

This concentration should develop the knowledge and understanding of the natural sciences and mathematics appropriate to the needs of the teacher in grades K-8 and is intended to provide the student pursuing this option with the minimal competence to teach in either or both disciplinary areas. Of necessity, depth in any particular discipline is secondary to obtaining breadth from an array of natural science and mathematics areas. Courses included in the major have been selected to maximize the number of upper division courses that can be taken without prerequisites.

Prerequisite sequence: Mathematics 151-152: Biocalculus I and II (3,3).

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

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

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

A. Biological Sciences (two of the following three courses): Biology 210: Cell Biology

Biology 220: General Genetics (4); Biology 230: General Ecology (4); or Zoology 230-240: Human Physiology, Human Anatomy (4,3)

B. Chemistry: Either Chemistry 100-110: Principles of Chemistry, Introduction to Organic and Biochemistry (4,4) or Chemistry 120-130: General Chemistry I and II (4,4)

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

Part II. (6-8 hours) Either another sequence from Part I above or two of the following courses:

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

Total: 32-36 hours

PRE-TEACHING HUMANITIES OPTIONS: BACHELOR OF ARTS

(5.) Arts

This concentration should develop the knowledge and understanding of the role of the arts in society and should include experiences with the visual arts, music, drama, and creative dance. Prerequisite to this concentration is Mathematics 201-202 or one of the Mathematics sequences listed under Natural Science, Part II of the Liberal Arts Distribution requirements: Math 121-115, 121-122, 121-Statistics 201, 122-115, 141-142, or 151-152. If the Math 201-202 sequence is chosen, it will satisfy the distribution requirements under Natural Science, Part II.

Required courses:

Art 172: Western Art I (3) or Art 183: Asian Art (3); Music 110: Music Appreciation (3); Theatre 100: Introduction to Theatre (3)

9 hours in performance courses from 2 or 3 of the following areas: Studio Art (any course); Dance (any course); Music Performance (any course); Speech Communication 280: Introduction to Oral Interpretation (3); Speech Communication 380: Oral Interpretation of Prose Literature (3); Speech Communication 385: Oral Interpretation of Poetry (3); Speech Communication 480: Ensemble Interpretation (3); Theatre 220: Acting (3); Theatre 221: Acting (3); Theatre 245: Basic Costuming (3); Theatre 250: Introduction to Scene Technology (3); Theatre 260: Fundamentals of Light and Sound (3); Theatre 320: Advanced Acting (3); Theatre 340: Introduction to Costume Design (3);

9 hours of Non-performance courses from 2 or 3 of the following departments: Art 173: Western Art II (3); Art 232: History of Photography (3); Art 371: Early Christian and Byzantine Art, to 1350 (3); Art 382: Northern European Painting, 1350-1600 (3); Art 374: Art of Northern Europe, 1600-1675 (3); Art 375: History of Modern Sculpture in Europe and America (3); Art 381: Medieval Art of the West, 800-1400 (3); Art 382: The Art of Italy: 1250-1450 (3); Art 383: The Art of Italy: 1475-1575 (3); Art 384: Art of Southern Europe: 1575-1700 (3); Art 385: Chinese Art (3); Art 383: Japanese Art (3); Art 471: History of North American Art (3); Art 472: History of 20th Century Art (3); Art 473: 19th Century American Painting (3); Art 475: History of 19th Century Painting in Europe and America (3); Art 476: History of 20th Century Painting in Europe and America (3); Art 486: Art of Indian Art (3); English 252: Introduction to Drama (3); English 306: Introduction to Shakespeare (3); English 334: Film and American Culture (3); English 404: Shakespeare I: Early Plays (3); English 405: Shakespeare II: Later Plays (3); English 406: Renaissance Drama (3); English 412: British Drama from 1660-1800 (3); English 453: Continental Drama (3); English 491: Foreign Study (1-15); +French 430: Théatral French (2-3); German 373: German Film (3); +German 422: German Drama (3); Music: all courses in Music History and Music Theory; +Spanish 450: 20th Century Hispanic Theatre (3); Theatre 210-211: Survey of World Drama (3,3); Theatre 310-311: History of the Theatre: (3,3); Theatre 312-313: History of the American Theatre (3); Theatre 410: Dramatic Theory and Criticism (3); 6 additional hours at the 300 level or higher from any of the courses listed above.

+Course requires intermediate level in the language.

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

(6.) Language Arts

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

Prerequisite to this concentration is Mathematics 201-202 or one of the Mathematics sequences listed under Natural Science, Part II of the Liberal Arts Distribution requirements: Math 121-115, 121-122, 121-Statistics 201, 122-115, 141-142, or 151-152. If the Math 201-202 sequence is chosen, it will satisfy the distribution requirements under Natural Science, Part II.

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

12 hours in courses from at least two of the following areas: Audiology and Speech Pathology; Comparative Literature, English, Library and Information Science, Linguistics, Speech Communication
6 hours in expository and/or creative writing courses in the English Department or Theatre 470-471: Playwriting (3,3)

6 hours from: Audiology and Speech Pathology 305: Speech Science I: Phonetics and Acoustics of Speech (3); Audiology and Speech Pathology 320: Speech and Language Development (3); Audiology and Speech Pathology 465: Speech and Language of the Culturally Different Child (3); English 371: Foundations of the English Language (3); English 372: The Structure of Modern English (3)

6 hours in literature courses in Departments of English, Classics, or Foreign Language at 300 level or above

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

(7.) Ideas and Values
This concentration aims at developing an understanding of the variety of ideas and values evolved by different civilizations in their attempts to comprehend and manage the human condition. Prerequisite to this concentration is Mathematics 201-202 or one of the Mathematics sequences listed under Natural Science, Part II of the Liberal Arts Distribution requirements: Math 121-115, 121-122, 121-Statistics 201, 122-115, 141-142, or 151-152. If the Math 201-202 sequence is chosen, it will satisfy the distribution requirements under Natural Science, Part II.

Required courses: (15 hours)
Philosophy 110-111: The Human Condition (3,3); Religious Studies 101: World Religions in History (3); Religious Studies 211: Ways of Understanding Religion (3); one of the following: Philosophy 380: The Concept of Woman (3); Philosophy 382: Philosophy of Feminism (3)

At least 9 hours at the 200 level or above from the following or from an option approved by petition: Classics 221: Early Greek Mythology (3); Classics 222: Classical Greek and Roman Mythology (3); Philosophy 320: Ancient Western Philosophy (3); Philosophy 322: Medieval Philosophy (3); Philosophy 324: Seventeenth and Eighteenth Century Philosophy (3); Philosophy 326: Nineteenth and Twentieth Century Philosophy (3); Philosophy 370: Philosophy of Religion (3); Philosophy 380: Philosophical Foundations of Democracy (3); Philosophy 393: Marxism (3); Philosophy 395: Existentialism (3); Philosophy 411: Modern Religious Philosophies (3); Philosophy 425: American Philosophy (3); Philosophy 479: Studies in Recent Continental Philosophy (3); Religious Studies 305: Contemporary Religious Thought (3); Religious Studies 311: Ancient Hebrew Religious Traditions (3); Religious Studies 315: Reformation Europe (3); Religious Studies 321: Testament Origins (3); Religious Studies 322: Christian Thought (3); Religious Studies 326: Images of Jesus (3); Religious Studies 331: Judaism (3); Religious Studies 342: Religious Ethics (3); Religious Studies 351: Introduction to U.S. Religious History (3); Religious Studies 352: Afro-American Religion in the U.S. (3); Religious Studies 355: Religion and Culture in the U.S. (3); Religious Studies 425: Seminar in Western Religions (3)

At least 6 hours in non-Western philosophy and religion to be chosen from the following or from an option approved through petition: Religious Studies 302: Religion of Primitive People (3); Religious Studies 332: Islam (3); Religious Studies 373: African Religions (3); Religious Studies 374: Philosophy and Religion in India (3); Religious Studies 376: Buddhist Philosophy and Religion (3); Religious Studies 379: Religion and Philosophy in China (3); Religious Studies 383: Religion in Japan (3); Religious Studies 412: Classical Indian Systems of Philosophy (3); Religious Studies 435: Seminar in Asian Religions (3)

Total: 30 hours
(at least 21 at 300 level or above)

PRE-TEACHING SOCIAL SCIENCE OPTIONS: BACHELOR OF ARTS

(8.) United States Culture
The aim of this concentration is to develop both breadth and depth of understanding about American culture, its uniqueness, its strengths, and its origins. Prerequisite to this concentration is Mathematics 201-202 or one of the Mathematics sequences listed under Natural Sciences, Part II of the Liberal Arts Distribution requirements: Math 121-115, 121-122, 121-Statistics 201, 122-115, 141-142, or 151-152. If the Math 201-202 sequence is chosen, it will satisfy the distribution requirements under Natural Science, Part II.

Required courses: (6 hours)
American Studies 310: Introduction to American Culture; Voices of Dissent (3); American Studies 410: Topics in American Culture (3)

6 hours from any U.S. History courses

3 hours in Appalachian Studies selected from: Anthropology 312: Appalachian Culture (3); Geography 365: Geography of Appalachia (3); History 449: Tennessee History (3)

6 hours in American Literature at 400 level

9 hours from the following: Anthropology 310: North American Indians (3); Anthropology 315: Afro-American Anthropology (3); Anthropology 386: North American Prehistory (3); Art 471: History of North American Art (3); Art 472: History of 20th century American Art (3); Art 473: 19th Century American Painting (3); Economics 331: Government and Business (3); Economics 325: Economic History of the North Atlantic Community (3); English 332: Women in American Literature (3); English 334: Film (3); Geography 361: Regional Geography of the U.S and Canada (3); Geography 363: Geography of the American South (3); Geography 365: Geography of Appalachia (3); Geography 425: Historical Geography of the United States (3); Geography 441: Urban Geography (3); Geography 443: Rural Geography (3); History 440: America: Mind, Mood and Society (3); History 445: The Afro-American Experience from the Colonial Period to the Present (3); History 453: Women in American History (3); History 454: Cities and Urbanization in American History (3); Music 350: History of Jazz (3); Music 440: Music of North America (3); Philosophy 425: American Philosophy (3); Political Science 315: Tennessee Government and Politics (3); Political Science 330: Law in American Society (3); Political Science 331: Judicial Process (3); Political Science 374: American Political Thought (3); Political Science 411: The Presidency (3); Political Science 412: Congress (3); Political Science 431: U.S. Constitutional Law: Civil Rights and Liberties (3); Religious Studies 351: Introduction to U.S. Religious History (3); Religious Studies 352: Afro-American Religion in the U.S. (3); Religious Studies 353: Topics in Afro-American Religion (3); Sociology 405: Sociology of Sport (3); Sociology 415: Sociology of Aging (3); Sociology 455: Sociology and Law (3); all 300 level courses except Sociology 321, 331, 336, 344, 351, and 370; Theatre 312-313: History of the American Theatre (3,3)

Total: 30 hours

(9.) Human Learning and Behavior
The purpose of this option is to develop knowledge and insights into societal influences and the ways in which humans learn, think, and act through various stages of development. Of the 33 hours, at least 21 must be within the College of Liberal Arts. Prerequisite to this concentration is Mathematics 201-202 or one of the Mathematics sequences listed under Natural Science, Part II of the Liberal Arts Distribution requirements: Math 121-115, 121-122, 121-Statistics 201, 122-115, 141-142, or 151-152. If the Math 201-202 sequence is chosen, it will satisfy the distribution requirements under Natural Science, Part II.

Core courses:
6 hours from: Child and Family Studies 210: Human Development (3); Child and Family Studies 213: Development in Middle Childhood and Adolescence (3); Educational and Counseling Psychology 210: Psychology of Human Development for Teachers (3); Psychology 300: Child Psychology (3)

9 hours from courses related to culture and society from at least 2 of the following areas: Afro-American Studies 480: Black Communities in Urban America (3); Anthropology 130: Cultural Anthropology (3); Anthropology 230: American Cultures (3); Anthropology 312: Appalachian Culture (3); Anthropology 313: Peoples and Cultures of Mississippian (3); Anthropology 314: Peoples and Cultures of Africa (3); Anthropology 410: Principles of Cultural Anthropology (3); Anthropology 413: Dynamics of Culture (3); Human Services 320: Peoples and Problems of Appalachia (3); Sociology 310: American Society (3); Sociology 343: Race and Ethnicity (3); Sociology 363: The City (3); Sociology 380: Rural Sociology (3)

6 hours in courses related to family from: Afro-American Studies 420: Families: Race, Class and Culture (3); Child and Family
(10.) Multicultural Studies
This concentration should develop a greater sensitivity, appreciation, and knowledge regarding other cultures both nationally and internationally. It should also increase understanding of issues of race and ethnicity. Prerequisite to this concentration is Mathematics 201-202 or one of the Mathematics sequences listed under Natural Science, Part II of the Liberal Arts Distribution requirements: Math 121-115, 121-122, 121-Statistics 201, 122-115, 141-142, or 151-152. If the Math 201-202 sequence is chosen, it will satisfy the distribution requirements under Natural Science, Part II.

Required courses: (9 hours)
- Geography 101-102: World Geography (3,3)
- Anthropology 130: Cultural Anthropology (3)
- 3 hours from: Sociology 340: Class Structure (3); Sociology 343: Race and Ethnicity (3); Sociology 344: Power and Society (3)
- 3 hours Sociology 446: The Modern World System (3)
- 3 hours Curriculum and Instruction 451: Education in Cultural Perspective (3)
- 18 hours selected from Geography, Afro-American Studies, Anthropology, Economics, History, Latin-American Studies, Religious Studies, Sociology with a multicultural/international emphasis or in a given geographic area (such as Africa, Asia, Latin America)

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

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

Prerequisite courses: History 151-152: Development of Western Civilization (3,3) or History 161-162: History of World Civilization (3,3); Geography 101-102: Political Science 101: United States Government and Politics (3) or Political Science 102: Government and Politics (3); History 251-252: History of the United States (3,3); Anthropology 120: Prehistoric Archaeology (3) or Anthropology 130: Cultural Anthropology (3); or Sociology 100: General Sociology (3)

Total: 24 hours

Core courses: Geography 320: Cultural Geography: Core Concepts (3); History 373: Historical Issues (3) or History 379: American Issues: Individualism and Community (3) or History 380: American Issues: War and the Peaceful Ideal (3)

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

6 hours from the following: Afro-American Studies: 371-372: African History (3,3); Economics 201: Introductory Economics: A Survey Course (4); History 376: History Behind the News (3); History 449: History of Tennessee (3); Human Services 220: Introduction to Human Services (3); Psychology 110: General Psychology (3); Women's Studies 310: Emergence of the Women's Studies Program (3); Women's Studies 332: Women in American Literature (3); Women's Studies 340: Women, Politics, and The Law (3)

Total: 18 hours

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

Total: 30 hours
(at 15 at the 300 level or above)

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

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

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

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

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

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

Course Load
The average course load in the college for any semester is 15-16 credit hours. The University defines full-time undergraduate students as those who register for a minimum of 12 hours. The maximum number of hours which may be taken by liberal arts students is 18, exclusive of elective work in ensemble music and physical education. Exceptions to this rule will require approval by the Director of Student Academic Affairs (220 Ayres).

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

Satisfactory/No Credit
A few courses in the college are offered only on a Satisfactory/No Credit (S/NC) basis and students may elect to take others on this basis, except in areas where the option is specifically prohibited. Such courses, if successfully completed, will count as hours for graduation although 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:

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

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

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

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

5. A transfer student with S/NC or equivalent credit earned prior to admission to The University of Tennessee, Knoxville, in a course which satisfies a Basic Skills or Distribution requirement may count it for that purpose. In the case of a course which satisfies a major or minor requirement, statement (1) applies.

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

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

Off-Campus Study
Recognizing that learning is not restricted to formal classroom situations, the college provides for students to earn credit toward graduation for approved off-campus study. Such study may be undertaken only with prior approval of the faculty member and the department concerned. It may include certain kinds of work experiences, community involvements, working in political campaigns, etc. Credit per semester will vary from 1-15 hours. Up to 21 hours of credit earned in this way may be applied toward a degree in the college, although individual departments may limit the number of hours which may be applied toward a specific major.

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

Study Abroad and Foreign Study Courses
Several opportunities for study abroad are available to students in the college. One avenue is through group programs arranged and supervised by departments of the college on a full-semester or summer term basis. A second is through group programs conducted abroad by other academic institutions in which UT, Knoxville students with approval may enroll for credit. Assistance in identification of and registration in such programs may be obtained through the Overseas Study Information Service located in the University's Division of International Education. A third opportunity is through individualized programs under the foreign study study number 481. The nature of this work as well as credit for it should be negotiated by students prior to departure with the appropriate liberal arts departments. Credit will be awarded only after completion of all agreed upon requirements, and may vary from 1-15 hours in any one department. Up to 21 hours of such credit.

Freshman

<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>'Biology 110, 120 or Zoology 117, 118</td>
<td>8</td>
<td>8</td>
</tr>
<tr>
<td>'Chemistry 120-130</td>
<td>8</td>
<td>8</td>
</tr>
<tr>
<td>'Basic Skills (B) Foreign Language (Intermediate Level Sequence)</td>
<td>6</td>
<td>6</td>
</tr>
<tr>
<td>'Mathematics</td>
<td>6</td>
<td>6</td>
</tr>
</tbody>
</table>
| Sophomore
| 'Chemistry 110                               | 4     | 4      |
| Zoology 230                                  | 5     | 5      |
| Biology 210, 220                             | 8     | 8      |
| Microbiology 310, 319                        | 4     | 4      |
| Divisional Distribution (D) Humanities Part I-II | 3   | 3      |
| Divisional Distribution (A) Non-U.S. History | 6     | 6      |

Junior

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Microbiology 420, 429</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>Chemistry 310, 319</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>Microbiology 430</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>Divisional Distribution Humanities Part I-II</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>Divisional Distribution Social Sciences</td>
<td>6</td>
<td>6</td>
</tr>
<tr>
<td>Upper Level Distribution (A) U.S. Studies</td>
<td>6</td>
<td>6</td>
</tr>
<tr>
<td>(B) Foreign Studies or (C) Capstone Experience</td>
<td>6</td>
<td>6</td>
</tr>
</tbody>
</table>

Total: 94 hours

Senior

| Medical Technology course of study at UTMCK (12 month program) | Hours | Credit |

Total: 124 Minimum hours

Or equivalent honors courses.

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

This requirement assumes a student has had enough background in high school to begin an intermediate language sequence at UT, Knoxville. All students must complete the Math Basic Skills requirement as outlined in the Liberal Arts curriculum. Mathematics 115-121 or Mathematics 121-122 are required for pre-medical technology students.

*Chemistry 350, 360, and 369 may be substituted for Chemistry 110 and Biochemistry 310.
exclusive of that earned in group programs offered by departments, could apply toward a degree in the college. Departments may in any of the above forms, however, limit the hours of credit which can be applied toward a given major.

AFRICAN AND AFRICAN-AMERICAN STUDIES
See Interdisciplinary Programs.

AMERICAN STUDIES
See Interdisciplinary Programs.

ANCIENT MEDITERRANEAN CIVILIZATIONS
See Interdisciplinary Programs.

ANTHROPOLOGY

Proponents:
W.M. Bass (Head and Alumni Distinguished)
American Studies
AFRICAN AND AFRICAN-
of the above forms, however, limit the hours of
offered by departments, could apply toward a
exclusive of that earned in group programs

Associate Professors:
L.K. Konigsberg, Ph.D. Northwestern.
J. Chapman, Ph.D. North Carolina; Research Associate Professors:
W.E. Klippel, Ph.D. Missouri; M.H. Logan, A&M; M.C. Wheeler (Emerita), Ph.D. Yale.

Associate Professors:

Research Associate Professors:

Assistant Professor:
M.A. Bass, Ph.D. Kansas State (part-time).

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

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

ART

Proponents:

Associate Professors:

Assistant Professors:
P. Longobardi, M.F.A. Montana State; B. Lyons, M.F.A. Arizona State; D. Wilson, M.F.A. California (San Diego).

B. F. A. in Studio Art

The B.F.A. is Studio Art is a professionally oriented degree especially intended for those students planning careers or graduate study in the visual arts. Majors must pass a portfolio review, usually at the end of the sophomore year in order to be admitted into upper division courses and concentrations. All studio courses require 3 hours per week attendance for each credit hour earned. Completing the B.F.A. program may take more than 8 semesters. Students are urged to seek departmental advice each semester to ensure proper scheduling.

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

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

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

Basic Requirements

<table>
<thead>
<tr>
<th>Core</th>
<th>Hours</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Art History 171, 172, 173</td>
<td></td>
<td>9</td>
</tr>
<tr>
<td>Additional hours</td>
<td></td>
<td>9</td>
</tr>
<tr>
<td>Studio 101, 103</td>
<td></td>
<td>4</td>
</tr>
<tr>
<td>Studio 299</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>Studio 211 Drawing I; 213 Painting I (or 215 Watercolor I); Sculpture 241 or 243 or 244 or 245 or 246; Printmaking (161 or 262 or 263 or 264)</td>
<td></td>
<td>12</td>
</tr>
<tr>
<td>9 hours from the following: Fiber-Fabric (201 or 202 or 203 or 204); 242 Life Modelling; 106 Metal Design; 231 Photography; 292 Film Design; 221 Ceramics</td>
<td></td>
<td>9</td>
</tr>
</tbody>
</table>

Total: 46

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

Portfolio Review (pre-requisite to 300), 200, 300, 400 level.

Approved Studio Electives for Concentration.

Total: 32

Studio Electives

Additional hours in studio course electives to be completed in the Art Department or at our affiliated facility, Arrowmont School of Arts and Crafts. Students may also apply a maximum of 6 hours of approved studio courses from Architecture, Art Education, Broadcast Journalism, Computer Science, Vocational Technical Education, Interior Design or Theatrical. Students electing an additional major in Art Education and licensure to teach must take 14-15 hours in undergraduate Art Education courses.

Total: 15 hours

General Curriculum

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

Total: 34 hours


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

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

B.F.A. in Graphic Design/Illustration

The Graphic Design/Illustration major is specifically designed to provide the basic visual education for those persons who wish to pursue careers in the commercial application of art in fields such as advertising, art direction, package design, publications, television, etc. Students are advised that a minimum of 21 hours in studio courses, and 6 upper division hours in art history must be earned at UT, Knoxville. Transfers who expect to enroll in 300 (junior level) or 400 (senior level) courses must present a portfolio of 10-15 works, the majority of which must be in graphic design.

Art/College of Liberal Arts 107
No grade below "C" in art courses may be applied to the B.F.A. major. A minimum of 40 credit hours, 300 level or above, must be earned prior to graduation.

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

GRAPHIC DESIGN CONCENTRATION

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Art Core</td>
<td></td>
</tr>
<tr>
<td>Art 171, 172, 173</td>
<td>9</td>
</tr>
<tr>
<td>Art History electives</td>
<td>6</td>
</tr>
<tr>
<td>Art 101, 103</td>
<td>4</td>
</tr>
<tr>
<td>Art 295, 211, 213 (or 215)</td>
<td>9</td>
</tr>
<tr>
<td><strong>Total:</strong> 28 hours</td>
<td></td>
</tr>
</tbody>
</table>

| Graphic Design                             |              |
| Art 350 (S/NC)                             | 0            |
| Art 212, 3 hours drawing elective          | 6            |
| Art 231                                    | 3            |
| Art 151                                    | 2            |
| Art 251, 252, 351/355, 352, 451, 452, 455 in sequence | 22           |
| Art 356                                    | 1            |
| Art 456                                    | 12           |
| **Total:** 45 hours                        |              |

| Design and Professional Electives          |              |
| Advertising 250, 350; Broadcasting 330;   |              |
| Marketing 301                              | 6            |
| **Total:** 6 hours                         |              |

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

**Total:** 127 hours

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

B.A. Majors in Art History

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Prerequisite: Art 172, 173, 183</td>
<td>9</td>
</tr>
<tr>
<td>Major: Art History courses numbered 200 and above (May include Greek and Roman Art and Archeology, Department of Classics)</td>
<td>21</td>
</tr>
<tr>
<td>Studio courses numbered 200 and above</td>
<td>6</td>
</tr>
<tr>
<td>Art 491</td>
<td>3</td>
</tr>
<tr>
<td><strong>Total:</strong> 39 hours</td>
<td></td>
</tr>
</tbody>
</table>

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

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

B.A. Major in Studio

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Prerequisite: Art 101, 295, 103</td>
<td>7</td>
</tr>
<tr>
<td>Major: Studio courses numbered 200 and above, including a minimum of 15 hours in 300-400 level courses</td>
<td>24</td>
</tr>
<tr>
<td><strong>Total:</strong> 40 hours</td>
<td></td>
</tr>
</tbody>
</table>

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

B.A. Minor in Art History

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Prerequisite: Art 172, 173</td>
<td>6</td>
</tr>
<tr>
<td>Minor: Art History courses numbered 200 and above</td>
<td>15</td>
</tr>
<tr>
<td><strong>Total:</strong> 21 hours</td>
<td></td>
</tr>
</tbody>
</table>

B.A. Minor in Studio

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Prerequisites: Art 101, 103, 295</td>
<td>7</td>
</tr>
<tr>
<td>Major: Studio courses which include a minimum of 6 additional upper-division hours. Concentration may be Ceramics, Drawing, Fiber-Fabric, Painting-Watercolor, Printmaking, Sculpture or a combination from these areas</td>
<td>15</td>
</tr>
<tr>
<td><strong>Total:</strong> 28 hours</td>
<td></td>
</tr>
</tbody>
</table>

PI BETA PHI ARROWMONT SCHOOL OF ARTS AND CRAFTS

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

Arrowmont, located 40 miles from the UT, Knoxville campus, is a visual arts complex which functions as a regional and national cultural center. In 1954, Pi Beta Phi Fraternity established an affiliation with The University of Tennessee, and with the Department of Art in 1976. The program currently includes spring and summer one and two week media workshops, special weekend conferences, and community classes. Media offerings include: clay, fiber, fabric, metal, wood, stained glass, leather, papermaking, drawing, painting, graphics and photography. Students may receive audit, undergraduate or graduate credit for spring and summer classes through The University of Tennessee, Department of Art. Facilities include well equipped studios, on campus book and supply store, a large auditorium, art library, and resident accommodations. The Arrowmont Gallery presents changing juried, invitational, theme or media oriented exhibitions. The Gallery and Library are open to the public Monday-Saturday, 8:30 a.m. - 5:30 p.m. Arrowmont receives financial support from chapters of the Pi Beta Phi Fraternity, alumnae clubs, and individual members.

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

ASIAN STUDIES
See Interdisciplinary Programs.

ASTRONOMY
See Physics and Astronomy.

AUDIOLOGY AND SPEECH PATHOLOGY

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

Associate Professors:
S.B. Burchfield, Ph.D. Michigan State; C.J. Ferrell, M.A. Tennessee; E.I. Hamby, Ph.D. Iowa; J. Thein, Ph.D. Iowa; G. Wallace, Ph.D. Northwestern.

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

Instructors:
D. King, M.A. Tennessee; T.R. Singletary, M.S. Colorado State.
The Department of Audiology and Speech Pathology offers course work in the scientific study of human communication sciences and disorders. The two undergraduate majors (audiology and speech pathology) are preparatory to graduate work and to professional certification in some aspect of speech, language and hearing disorders. The master’s degree is required for most professional certificates and employment positions. Information about the audiology and speech pathology programs may be obtained from the departmental office, 457 South Stadium Hall, and students are strongly encouraged to consult with the undergraduate advisors in the department as early as possible in their programs. Suggested elective courses for students not majoring in Audiology and Speech Pathology include 304, 305, 320, 331, 437, 443, 461, 465, 473 plus six (6) hours from the following courses: 431, 440, 449, 494.

The B.A. major in audiology consists of Audiology and Speech Pathology 304, 305, 306, 320, 331, 371, 433, 461, 465, 473 plus six (6) hours from the following: 431, 440, 471, 494 plus not fewer than 3 nor more than 6 additional credit from Biochemistry 420, 471, 473, 481, and 495.

The B.S. major in audiology consists of Audiology and Speech Pathology 304, 305, 306, 320, 331, 371, 443, 463, 465, 473, and 494 plus not fewer than 3 nor more than 6 hours from the following: 433, 465.

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

**Bacteriology**

See Microbiology.

**Biochemistry**

Professors: W.D. Wicks, Ph.D. Harvard (Head); J.E. Churchich (Chancellor’s Research Scholar), Ph.D. Sheffield (England); J.G. Joshi, Ph.D. Poona (India); K.J. Monty, Ph.D. Rochester.

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

Assistant Professors: E. Howell, Ph.D. Lehigh; C. Peterson, Ph.D. Louisiana State; D. Roberts, Ph.D. California (Davis); E. Serpersu, Ph.D. Hacettepe (Turkey).

The B.S. major in Biochemistry consists of Biology 210-220, Chemistry 350-360, 369, Biochemistry 410, either Chemistry 310-319 or Biochemistry 419, and 12 hours of upper division courses. Upper division courses must be selected from Biochemistry 419, 420, 430, 440, 445; Botany 310-320, 321, 412, 441, 451; Microbiology 310-319, 400, 410, 419, 430-439, 440-446; Zoology 330-331, 350, 360, 400, 403, 404, 410, 420, 440, 445, 449, 460, 465, 490. Not more than 8 hours may be selected from one department. No more than 3 credits of research courses may be counted toward the major.

Concentration in Organismal and Systems Biology consists of Biology 210, 220, 230, Chemistry 350, 360, 369, Biochemistry 410, either Chemistry 310-319 or Biochemistry 419, and 18 hours of upper division courses selected from Biochemistry 310, 419, 420, 445; Botany, any 300- or 400-level courses but not more than one course from 305, 306, or 309; Microbiology, any 300- or 400-level courses; Zoology, any 300- or 400-level courses. At least 6 hours must be at the 400 level. Not more than 12 hours may be selected from one department. No more than 3 credits of research courses may be counted toward the major.

Concentration in Ecology consists of Biology 210, 220, 230, Chemistry 350, 360, 369, one course from among Botany 431, Zoology 450 or 460; either Zoology 470 or Botany 436; and one course from among Forestry, Wildlife and Fisheries Science 311, 315 or; Wildlife and Fisheries Science 443, 444, or 445. An additional 9 hours must be chosen from among these courses: Either Biochemistry 310 or 410; Botany 321, 330, 346, 401, 402, 403, 431; one course from among Geography 413, 433, or 434; Microbiology 470, 479; Zoology 445, 450, 459, 460, 470. A Minor consists of Biology 210, 220, 230 and 8 hours of upper-division courses chosen from the list below. Biochemistry 410-419; Botany, any 300- or 400-level courses: Microbiology, any 300- or 400-level courses; Chemistry 310-319; Zoology, any 300- or 400-level courses. (In meeting the upper-division minimum requirement, not more than 6 hours may be credited from any one biological science department, and not more than 3 hours of research courses may be credited.) Prerequisites to the minor are introductory biology courses (Biology 110-120 or Botany 118-120 or Zoology 117-118) and Chemistry 120-130.

**Botany**

Professors: K.W. Hughes (Head), Ph.D. Utah; J.D. Caponetti, Ph.D. Harvard; E.E.C. Clebsch, Ph.D. Duke; J.M. Michigan; W.R. Riechert, Ph.D. (Emeritus); D.M. Michigan; W.R. Herndon (Alumni Distinguished Service Professor), Ph.D. Vanderbilt; L.G. Hickok, Ph.D. Massachusetts; R.W. Hoiton, Ph.D. Michigan; L.W. Jones, Ph.D. Texas; J.F. McCormick, Ph.D. Emory; B.C. Mullin, Ph.D. North Carolina State; F.H. Norris (Emeritus), Ph.D. Ohio State; R.H. Persenzen (Distinguished Professor), Ph.D. Columbia; E.E. Schilling, Ph.D. Indiana; A.J. Sharp (Emeritus), Ph.D. Ohio State; W.O. Smith, Ph.D. Duke; P.L. Walne (Benson Distinguished Professor), Ph.D. Texas.

Associate Professors: C.C. Amundsen, Ph.D. Colorado; A.S. Hailman, Ph.D. Ohio State; O.J. Schwarz, Ph.D. North Carolina State; D.K. Smith (Undergraduate Coordinator), Ph.D. Tennessee; B.E. Wooldford (Director of Herbarium) Ph.D. Tennessee.

Lecturer: K.D. McFarland, Ph.D. Tennessee.

The B.S. major in Botany may be obtained by completing one of the three concentrations: General Program, Organismal Botany, or Cellular and Molecular Botany. Prerequisites for all three concentrations are: Botany 110-120 or 118-128 (recommended), or Biology 110-120, and Chemistry 120-130. Corequisites to the General Program is one of the following sequences: Mathematics 115-121 or 141-142 or 151-152, or Physics 121-122 or Geology 101-102, or Chemistry 350-360-369. Corequisites for both of the other concentrations are: Mathematics 141-142 or 151-152, Physics 121-122 or Geology 101-102, and Chemistry 350-360-369.

General Program requirements are: 2 courses from Biology 210-220-230; Botany 310, 320, 321, 330, 1 hour of 371, 1 hour from 400 or 441-442; 4 hours of additional Botany; and 3 hours of upper division non-Botany courses selected from Biochemistry, Microbiology, or Zoology. A minimum of 31 hours completes this major’s option.

Concentration in Organismal Botany requirements are: Biology 210, 230; Botany 310, 321, 320, 330, 1 hour of 371, 2 hours from 400 or 441-442; and 7 additional hours selected from Botany (305, 306, 309 do not meet this requirement), Biology (220 is recommended for partial fulfillment of this requirement), or upper division Biochemistry, Microbiology, Zoology. A Minor (40-hour option) completes this major’s option (includes 8 hours of Organic Chemistry).

Concentration in Cellular and Molecular Botany requirements are: Biology 210, 220; Botany 321, 310, 320, 330, or 451, 1 hour of...
Chemistry

Professors:
G. Mamantov (Head and Alumni Distinguished Service Professor), Ph.D. Louisiana State; D.C. Baker, Ph.D. Ohio State; J.E. Bloor, Ph.D. Manchester (England); W.E. Bull, Ph.D. Illinois; J. Q. Chambers, Ph.D. Kansas; J.A. Dean (Emeritus), Ph.D. Michigan; J.F. Eastham (Emeritus), Ph.D. California (Berkeley); W.H. Fletcher (Emeritus), Ph.D. Minnesota; F.A. Grimm, Ph.D. Cornell; G.A. Guiochon (Distinguished Scientist, Science Alliance Center of Excellence), Ph.D. Universite de Paris (France); G.W. Kabalka, Ph.D. Purdue; D.C. Kleinfeiler, Ph.D. Princeton; J.D. Kovac; D.P. Yale, M.H. Lietzke, Ph.D. Wisconsin; J.J. Magid, Ph.D. Tennessee; R.M. Magid, Ph.D. Yale; R.M. Pagni, Ph.D. Wisconsin; J.R. Peterson, Ph.D. California (Berkeley); G.K. Schweitzer (Alumni Distinguished Service Professor), Ph.D. Illinois; M.J. Sepaniak, Ph.D. Iowa State; W.T. Smith (Emeritus), Ph.D. Ohio State; W.A. Van Hook, Ph.D. Johns Hopkins; E.L. Wehry, Ph.D. Purdue; T.F. Williams (Alumni Distinguished Service Professor), Ph.D. London (England); B. Wunderlich (Distinguished Scientist, Science Alliance Center of Excellence), Ph.D. Northwestern.

Associate Professors:
J.L. Adcock, Ph.D. Texas; S.D. Alexandratos, Ph.D. California (Berkeley); C.E. Barnes, Ph.D. Stanford; J.E. Bartness, Ph.D. Northwestern; K.D. Cook, Ph.D. Wisconsin; C.A. Lane, Ph.D. California (Berkeley); C.S.Felger, Ph.D. Colorado; F.M. Schell, Ph.D. Indiana; C. Woods, III (Associate Dean), Ph.D. North Carolina State.

Assistant Professor:

Bachelor of Science in Chemistry

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

Curriculum Requirements:

<table>
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<tr>
<th>Requirements</th>
<th>Hours</th>
<th>Credit</th>
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<tbody>
<tr>
<td><strong>Freshman</strong></td>
<td></td>
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<tr>
<td>Chemistry 120-130 or (preferably) 121-131 or 128-138</td>
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<tr>
<td>Mathematics 141-142</td>
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<td>English Composition</td>
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<td><em>Foreign Language (intermediate level sequence)</em></td>
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<td>Chemistry 230</td>
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<tr>
<td>Physics 131-231</td>
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<td><strong>Junior</strong></td>
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<td>Chemistry 310-320</td>
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<td>Chemistry 479-489</td>
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<td><strong>Electives</strong></td>
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<td><strong>Senior</strong></td>
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<td>Chemistry 430</td>
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</tbody>
</table>

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

**B.S. Degree and Chemistry Major**

For students wishing to major in chemistry but desiring a more flexible course of study than the B.S. in Chemistry, there is the regular B.S. degree. Because these two programs are designed for students with different career goals, the following paragraphs should be carefully considered before selecting courses.

A student who decides to major in chemistry should ask the Academic Advisor in the Department of Chemistry for assignment of a faculty advisor in the Department of Chemistry. For further information, contact the Head of Department of Chemistry, 575 Buehler Hall.

Prerequisites to the major are Chemistry 120-130 or (preferably) 121-131 or 128-138, Chemistry 140, and Mathematics 141-142 or 151-152. Corequisites to the major is Physics 221-222 or 131-231.

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

For students planning careers in chemistry, the recommended courses (from the list above) are Mathematics 141-142, Physics 131-231, and Chemistry 473-483; although not required, certain additional courses are strongly suggested for students planning to become chemists: Mathematics 241-251 and Chemistry 230, 320, 329, and 406. Because professional chemists need a reading knowledge of foreign languages, intermediate level competency should be acquired in German, French or Russian.

American Chemical Society. The B.S. degree is not approved by the Committee on Professional Training of the American Chemical Society.

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

**Cooperative Program**

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

Placement in General Chemistry Sequences

The sequences which meet all requirements of a year of general chemistry and which serve as prerequisites for upper-division courses are 120-130, 121-131, and 128-138; chemistry majors are strongly encouraged to take either of the latter sequences. Courses 100 and 110 emphasize organic and biochemistry, and may be used as prerequisites only for 431.

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

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

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

COMPARATIVE LITERATURE
See Interdisciplinary Programs.

COMPUTER SCIENCE

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

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

Assistant Professors:
Michael W Berry, Ph.D. Illinois; J.R.S. Blair, Ph.D. Pittsburgh; H.A. Booth, Ph.D. Princeton; Jens Gregor, Ph.D. Aalborg (DK); D.C. Mechler, Ph.D. Duke; D.W. Straight, Ph.D. Texas; B.T. Vander Zanden, Ph.D. Cornell; M.D. Vose, Ph.D. Texas.

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

Computer Science 102, 111, and 112 are prerequisites to a major in computer science which consists of 311, 320, 340, 371, and 380; plus an additional 3 hours of CS Advanced Topics Courses. Mathematics 141-142, 221-222, 231, 241, and 251, Physics 151-152, and English 461 are also required. Students must elect a two-semester lab science sequence in either Biology or Chemistry, or a sequence approved by the Computer Science Department. It is highly recommended that all Computer Science majors own a personal computer with communications capability.

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

Progression Standards:
Computer Science Department directly. Students who enter the College of Liberal Arts as freshmen or sophomores are expected to apply for the major immediately after completing 10 hours in Computer Science.

Transfers from Other UTK Programs:
Students in other colleges or majors at UTK must apply for progression to the major at the earliest possible date but definitely prior to 75 hours. As a minimum, all students must be admitted to the CS major for at least the last 30 hours of work. Only in exceptional circumstances will application be considered after 75 hours of coursework (at UTK or elsewhere) have been attempted. It should not be supposed that this policy must be granted to those who accumulate a substantial number of hours in CS courses. On the contrary, an academic record reflecting substantial work after 75 hours in the CS curriculum may be taken as prima facie evidence of intent to evade this policy and may result in denial of admission.

In 1991 the progression standards were:
1. Has completed at least the following three courses at UTK with an average of 3.0 or better: CS 102, 111, 112.
2. Has achieved an average of 2.5 or better of grades in all Computer Science courses taken at UTK that apply to the major. All grades recorded for these courses are averaged.
3. Has received at most one W or repeated grade in a Computer in a Computer Science course.
4. Has not been disciplined for academic dishonesty in a Computer Science course or for abuse of university computing privileges.

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

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

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

ECOLOGY

Director:
Dewey L. Bunting

Basic Faculty:
C.C. Amundsen, Ph.D. Botany; B.G. Blaylock, Ph.D. O.R.N.L.; E.R. Buckner, Ph.D. Forestry; D.L. Bunting, Ph.D. Zoology; G.M. Burghardt,
ECONOMICS

See faculty listing the College of Business Administration.

The program in economics combines a broad liberal education with the rigorous study of current issues of the day such as consumption, inflation, poverty, wealth, and the benefits and costs of economic growth. Courses offered in the Department of Economics of the College of Business Administration provide opportunity for a major or minor in economics in the College of Liberal Arts.

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

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

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

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

ENGLISH

Professors: D.A. Carroll (Head), Ph.D. North Carolina; P.G. Adams (Young Professor Emeritus), Ph.D. Texas; E.W. Bratton, Ph.D. Illinois; D.R. Cox (Associate Head), Ph.D. Missouri; K. Curry (Emeritus), Ph.D. Yale; R.V. Drake, Jr., Ph.D. Yale; W. Dykeman (Adjunct), B.A. Northwestern; A.R. Ensor, Ph.D. Indiana; R.J. Finnern (John J. Hodges Professor Emeritus), Ph.D. North Carolina; J.H. Fisher (John J. Hodges Professor Emeritus), Ph.D. Pennsylvania; N.M. Goslee (Alumni Distinguished Professor), Ph.D. Drake; T.A. Heffernan, Ph.D. Cambridge; R.M. Kelly (Young Professor), Ph.D. Duke; B.J. Leggett (Humanities Professor), Ph.D. Florida; M.A. Lofaro, Ph.D. Maryland; C. Maland, Ph.D. Michigan; F.D. Miller (Emeritus), Ph.D. Virginia; R.B. Miller, Ph.D. Brown; A.R. Panner, Ph.D. Colorado; J.E. Reese, Ph.D. Kentucky; N.J. Sanders (Young Professor), Ph.D. Shakespeare Institute, Stratford-on-Avon; D.J. Schneider (John Douglas Bruce Professor), Ph.D. Northwestern; D.M. Scura, Ph.D. North Carolina; W.R. Shurr (Hodges Professor Emeritus), Ph.D. North Carolina; B.T. Stewart (Emeritus), Ph.D. Northwestern; J.B. Trilhorn, Ph.D. Princeton; R.H. Walker (Emeritus), M.A. Texas; T.V. Wheeler, Ph.D. North Carolina; J.M. White (Young Professor), M.A. Cambridge; N. Wright (Emeritus), Ph.D. Yale.


Instructors: G. Brewster, Ph.D. Duke; G. Burkmann, M.A. Denver; M.J. Caffee, M.A. Tennessee; A. Danielsen, M.A. Purdue; C. DiBiase, Ph.D. Ohio State; L. Faulks, Ph.D. Florida; R. Gee, Ph.D. Tennessee; P.J. Hesse, Ph.D. Cornell; A. Holmes, Ph.D. Alabama; G. Lee, Ph.D. Tennessee; A.A. Long, Ph.D. Iowa; D.M. McKinsty, Ph.D. Tennessee; E.D. Overby, M.A. Virginia; M.G. Ringer, Ph.D. Oklahoma State; P. Ryerson, M.A. Florida State; F. Sultana, Ph.D. Tufts; C. Tait, M.A. Utah State; P.A. Tschantz, M.A. New Mexico State; J. Torricelli, Ph.D. Iowa; J. Vincent, M.A. Michigan State.

Prerequisites and Corequisites: English 101 and 102, or the equivalents, are prerequisites to all English courses at the 200, 300, and 400 levels.

Major Requirements: At least 36 semester hours of course work in the English Department, 30 of which must be at the 300 or 400 level. For all English Majors: English 201-202 (British Literature), or 221-222 (Literature of the Western World), or any two of 231-232-233 (American Literature). This requirement should be satisfied, if possible, before the student takes courses at the 300-400 level. Courses in the study of the English language, 371 or 372 and 374 are recommended for all majors.

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

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

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

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

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

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

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

FRENCH
See Romance Languages.

GEOGRAPHY

Professors:
S.R. Jumper (Head), Ph.D. Tennessee; C.S. Aiken, Ph.D. Georgia; T.L. Bell, Ph.D. Iowa; E.H. Hammond (Emeritus), Ph.D. California (Berkeley); R.G. Long (Emeritus), Ph.D. Northwestern; C.W. Minkel (Vice Chancellor for Academic Affairs and Dean of the Graduate School), Ph.D. Syracuse; C.T. Paludan (UTSI), Ph.D. Denver; B.A. Ralston, Ph.D. Northwestern; T.H. Schmude, Ph.D. Wisconsin; T.J. Wilbanks (Adjunct), Ph.D. Syracuse.

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

Assistant Professors:
C.P. Harden, Ph.D. Colorado (Boulder); S.P. Horn, Ph.D. California (Berkeley); Cheng Liu, Ph.D. Tennessee; J.J. Ray (Adjunct), Ph.D. Tennessee.

A B.A. major in Geography Geography 131 and 132 are prerequisite to a major in Geography, which consists of Geography 310, 320, 340, 415, and 499, and 12 additional credits selected from Geography courses at the 300 and 400 levels. At least one course must be chosen from among Geography 361, 363, 365, 372, 373, 375, and 379, and at least nine hours must be at the 400 level.

'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.

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

GEOLOGICAL SCIENCES

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

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

Assistant Professor:
Hazel R. Delcourt, Ph.D. Minnesota; Claudia I. Mora, Ph.D. Wisconsin.

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

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

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

Concentration in Engineering Geology: Students wishing to prepare for a career in environmental/engineering geology where communication with engineers is important may elect this multidisciplinary concentration. Electives in the major and some of the courses necessary to satisfy the Liberal Arts College Distribution requirements are specified. Required coursework includes: Geology 310, 320, 330, 340, 370, 440, 450, 460, 470 and 485; Mathematics 141, 142 and 231; Physics 131 and 132; Basic Engineering 101 and 121; Civil Engineering 330, 335 and any one of the following: 340, 390, 530, 532 or Environmental Engineering 535; Plant and Soil Science 210; English 459; and Speech 240. Courses from the College's approved lists for satisfying the Social Sciences, Humanities and Upper Level Distribution requirements will be recommended and approved by the student’s advisor.

Honors: Students who have completed 5 upper division courses in the major and have an overall GPA of 3.0 may elect to participate in an enrichment program involving research in the geological sciences. Research, in the form of an approved senior thesis, will be accomplished by successful completion of a minimum of 6 semester hours of Geology 491, 492, or 493 under the direction of a faculty member. The results of the research must be formally presented to the Department's Seminar (Geology 596), the Tennessee Academy of Science, or other acceptable professional organization. Also, an approved written copy of the "thesis" must be submitted to the Department of Geological Sciences. A GPA of 3.0 must be maintained throughout matriculation. Interested students should con-sult their advisor for details about participation.

GERMANIC AND SLAVIC LANGUAGES

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

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

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

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

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

Foreign Study: Students are encouraged to study abroad, particularly to participate 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 be readily transferred to UT, Knoxville. For qualified students, the department also offers German 491 Foreign Study and Russian 491 Foreign Study. Students should consult the department before registering for the foreign study course.

B.A. Major in German: Majors or minors in German should carefully prepare their programs in consultation with a departmental faculty advisor. German 201-202 or the equivalent is
prerequisite to the major. The major shall consist of at least 24 hours of German in courses numbered above 300, including German 363 and usually including German 301-302. Courses in English translation or German 331-332 do not count toward the major. In order to graduate, majors will be required to take a proficiency test in German. It is recommended that German majors also take History 151-152 or 334-335 and 6 hours of 200 level English courses.

Majors are also strongly urged to consider a minor in some other area of the humanities.

Minor in German: German 201-202 or its equivalent is a prerequisite to the minor. The minor shall consist of at least 18 hours of German courses numbered above 300, which normally include German 301-302 and 12 additional hours of courses numbered above 300 (excluding 331-332 and courses in English translation).

Major in German with a Concentration in Language and World Business: Students who wish to prepare for careers in international business may complete (a) a special major in German, (b) a professional emphasis in either International Business or International Logistics and Transportation, and (c) some form of practical experience related to the concentration. Admission is with the permission of the program advisor. For more information contact the departmental office, 701 McClung Tower, or the program office, 601 McClung Tower.

(a) Language Major: The German major with a concentration in Language and World Business consists of 28 hours. The following are required: German 199, 301-302, 311-312, 363, 485, 3 hours from either 491 or 493, and at least two courses chosen from among German 323, 411-12, 420-24, 426, or 435-38. 411-12 is strongly recommended.

(b) Professional Emphasis:

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

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

(c) Practical Experience: Through German 491 or 493 each L&WB student must undertake study abroad, an internship, or a relevant research project for a minimum of 3 hours (included in the requirements for a concentration in Language and World Business).

Additionally, L&WB students must consult an advisor in the Department of Germanic and Slavic Languages for help in selecting relevant courses under the Basic Skills and Distribution requirements of the College.

Students interested in the Language and World Business program should contact the Director for advising as early as possible in their college career. Students must have attempted 45 hours in order to be considered for progression to the L&WB concentration. The academic record presented will be assessed by the Director of Language and World Business.

Minimum requirements for progression to the concentration are a 2.75 cumulative average in the courses specifically required by the College of Liberal Arts in Basic Skills and Distribution and in the Language and World Business plan of studies, and a 3.0 average in language courses. Progression is based on availability of space in the program. Progression standards are adjusted periodically, and current requirements are available from the Director of L&WB.

B.A. Major in Russian: Russian 201-202 is a prerequisite to the major. Russian majors should consult with the departmental faculty advisor. The major in Russian shall consist of at least 30 hours of Russian courses, including Russian 301-302; 311-312; 401-402; 451-452; and 6 hours from Russian 221, 222, 226, 321, 322, 328, 312, 372, or other courses numbered above 400. It is recommended that majors also take Russian History 340-341 and 6 hours of sophomore English. Majors are urged to consider a minor in some other area of the humanities.

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

GREEK

See Classics.

HEBREW

See Religious Studies.

HISTORY

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

Associate Professors: S.D. Becker, Ph.D. Case Western Reserve; J.D. Bing, Ph.D. Indiana; J. Bohstedt, Ph.D. Harvard; W.W. Farris, Ph.D. Harvard; C.W. Johnson, Ph.D. Michigan; C.G. Fleming, Ph.D. Duke; J. Muldow (Acting Head), Ph.D. Yale; P.J. Finkney, Ph.D. Vanderbilt; J.G. Utley, Ph.D. Illinois.

Assistant Professors: P.H. Brummett, Ph.D. Chico; T.E. Burman, Ph.D. Toronto; T.A. Daison, Ph.D. Wisconsin; P.R. Gavitt, Ph.D. Michigan; B.L. Plummer, Ph.D. Maryland; R. Wakeman, Ph.D. California-Davis.

Assistant Professors: P.H. Brummett, Ph.D. Chico; T.E. Burman, Ph.D. Toronto; T.A. Daison, Ph.D. Wisconsin; P.R. Gavitt, Ph.D. Michigan; B.L. Plummer, Ph.D. Maryland; R. Wakeman, Ph.D. California-Davis.

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

B.A. Major: Majors in history should prepare their programs in consultation with a department faculty advisor. History 151-152 (or their honors equivalents) or 161-162 are prerequisites for the major which consists of 27 hours, including: (1) 6 hours of History 251-252 (or their honors equivalents); and (2) 21 upper-division hours. The distribution of the upper-division courses shall be in such a way that they include at least one course dealing predominantly with a period prior to 1750 and at least one course in each of the following areas: (a) Europe-Latin America, (b) United States, and (c) Asia-Africa.

Minor: History 151-152 (or honors equivalents) are prerequisites to a minor which consists of 15 hours of courses numbered 200 or above, including at least (1) 6 hours in United States history; and (2) 9 upper-division hours.

HISTORY FOR NON-MajORS: The department welcomes non-majors in its courses. Few history courses have formal prerequisites.

Honors Program: The Department of History offers honors sections of the Western Civilization and United States history survey course. Some entering freshmen are invited to participate; other interested students may apply. These survey courses are open to non-majors. An honors major requires successful completion of one special course at the junior level (307), and a senior thesis (407-408). The honors major consists of 30 hours, including 27 hours as outlined above, plus 307. All prospective 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 should consult the department's honors coordinator.

INTERDISCIPLINARY PROGRAMS

Director: Lorayne Lester (College of Liberal Arts)

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

AFRICAN AND AFRICAN-AMERICAN STUDIES

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

Assistant Professors: Dr. Asafa Jalata (Sociology), Ph.D. State University of New York (Binghamton); Dr. Betty Plummer (Special Programs/History), Ph.D. University of Maryland.
The Afro-American Studies Program offers both a major concentration and a minor in Afro-American Studies. AAS courses are offered not only by the program itself but also by numerous departments within the College of Liberal Arts and some other colleges as well. This diversified sponsorship of AAS courses enables the University to offer a particularly varied range of courses in the field of Afro-American Studies.

**Major concentration:** Afro-American Studies 201-202 are required in the concentration which consists of 24 hours from the Afro-American Studies curriculum. At least 15 hours must represent upper division credits. Majors are required to take AAS 491, preferably in their senior year. A maximum of 6 hours in AAS 492 and 493 combined can be applied toward the AAS major.

In planning their program majors must include courses from at least 2 other departments which crosslist courses with Afro-American Studies in addition to the AAS core course offerings.

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

**AMERICAN STUDIES**

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

**Major concentration:** English 231 and either 232 or 233 are prerequisite to a major concentration in American Studies which consists of 27 upper-division semester hours including American Studies 310 and 440; at least one approved American History course besides History 440; and six hours of approved courses chosen from the following disciplines: anthropology, economics, political science, or sociology. Courses in the major will be chosen in consultation with an American Studies advisor, from a list approved by the program, insuch a way that at least 3 courses help the student achieve a focus within the field. One course in the student's curriculum must specifically focus upon one or more American ethnic minority cultures. An additional 3-6 hours of American Studies 493 (Independent Study) are recommended for majors in their senior year. A list of approved elective courses is published annually.

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

The American Studies minor consists of at least 15 hours of coursework chosen from the program's list of electives, including American Studies 310, American Studies 410 or 440, and nine additional hours from at least two different disciplines.

**ANCIENT MEDITERRANEAN CIVILIZATIONS**

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

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

The major concentration in Ancient Mediterranean Civilizations consists of Classics 381 and 382, History 366, and 18 additional hours from the following list, distributed in such a way that no more than 12 hours are in any one of the three divisions: (a) Ancient Near Eastern Cultures: Religious Studies 311, 312, 326; (b) Greek Culture: Classics 221, 222, 232, 233, 253, 331, 334, 383, History 310, Philosophy 120, 320, Political Science 475; Religious Studies 321, 322, 326; and (c) Roman Culture: Classics 222, 233, 254, 383, 452; History 311, Philosophy 120, 320; Political Science 475; Religious Studies 321, 322, 326, 416.

A minor in Ancient Mediterranean Civilizations consists of 18 hours, including at least two of the three core courses (Classics 381, 382, History 366); at least one of the remaining hours can come from one division.

Courses of variable content, topics courses, reading and research, off-campus, or foreign study in the Departments of Art, Classics, History, Philosophy, or Religious Studies can be applied to the three divisions as approved. Students are encouraged to satisfy the foreign language requirement with Greek, Latin, or Classical Hebrew.

**ASIAN STUDIES**

**Chair:**
Mr. Stephen Young (Music)

The Asian Studies major concentration consists of 26 credit hours from the upper-division courses of Asian Studies and approved departmental offerings. Twelve of the hours must be taken from courses listed within one of the four geographical-cultural areas (Islamic World; South Asia; China; Japan), and 6 of those 12 hours must come from Subdivision A and 6 from Subdivision B. Subdivision A includes Art, Literature, Music, Philosophy, and Religious Studies; Subdivision B includes Anthropology, Economics, Geography, History, Political Science, and Sociology.

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

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

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

**CINEMA STUDIES**

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

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

For further information consult the chairperson of the Cinema Studies Program, Charles Maland, English Department. Other related courses in such departments as History, philosophy, and sociology may be approved through consultation with Dr. Maland.

Approved Area Courses are: Art 292 Film Design (3); Art 392 Intermediate and Advanced Film Design (3-6); Broadcasting 275 Introduction to Broadcasting (3); Broadcasting 430 Producing for Television (3); English 281 Introduction to Film Studies (3); English 334 Film and American Culture (3); English 469 Special Topics in Film (3); French 420 French Cinema (3); German 323 German Film (3); Italian 321 To Zapata Italian Cinema (3); Philosophy 312 Popular Culture and American Politics (3); Women's Studies 469 Sexuality and Cinema (3).

**COMPARATIVE LITERATURE**

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

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

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

**LATIN-AMERICAN STUDIES**

**Chair:**
Dr. Cynthia K. Duncan (Spanish)

The major concentration consists of two optional tracks: (1) General Studies or (2) Brazilian Studies. Each program requires 27 hours, of which 12 are in core courses, including Latin American 401 and 402, three hours of either History 350 or 361, and three hours of an approved Spanish or
Portuguese literature/culture course at either the 300 or 400 level. In addition to the core courses, the General Studies track will consist of five hours selected from courses offered by three different participating departments. The Brazilian Studies track will consist of fifteen hours beyond the core courses including a minimum of six hours in UTK's Summer Study Program in Fortaleza, Brazil (or other programs in Brazil approved by the director of Latin American Studies) and up to nine hours of approved courses that focus on Brazil. Majors are strongly urged to take as a prerequisite Latin American Studies 251-252.

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

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

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

LINGUISTICS

Chair:
Dr. Chauncey J. Miller (German)

This major concentration offers a broad exposure to the various fields of linguistics (including historical, descriptive, theoretical and applied linguistics) along with an opportunity to study areas where linguistics overlaps with other disciplines such as psycholinguistics, sociolinguistics, and speech pathology. The program of study is designed to prepare a student for graduate work in linguistics or related areas or to serve as a general survey of language and its related areas.

The concentration shall consist of 30 hours distributed as follows: (a) 24 hours composed of Audiology and Speech Pathology 305 (3); English 371, 372, and 471 (3,3,3); French, German, Russian or Spanish 425-426 (3,3); and Linguistics 420-430 (3,3); and (b) 6 hours of the following, selected in consultation with the Linguistics Committee: Anthropology 411 (3); Audiology and Speech Pathology 320, 465, 579, or 586; Curriculum and Instruction 457 (3); Special Education and Rehabilitation 522 (3), 532-533 (3,3); English 371, 372, 472, 475, 486, 506-509, 680 (3 hours each); French 421, 422, 521-522 (3 hours each); German 435-436 (3,3), 571-572 (3,3); Linguistics 400 (3); Philosophy 479 (3); Psychology 450, 482, 543, (3 hours each); Spanish 421, 422, 531-532 (2,3,3,3); Theatre 426 (4). Other hours may be substituted in (b) by approval of the Linguistics Committee.

A minor in Linguistics shall consist of 18 credit hours composed of (1) either English 471 (3) or 3 hours from section (b) of the major, selected in consultation with the Linguistics Committee; and (2) 15 hours as follows: Audiology and Speech Pathology 305 (3), English 371 (3) or 372 (3), French, German, Russian or Spanish 425 (3) or 426 (3), and Linguistics 420-430 (3,3). Note: In addition to the above listed courses for the concentration and the minor there are occasional offerings in the Honors Series or in graduate seminars which may be substituted for certain requirements subject to written approval of the Linguistics Committee and the Office of the Dean.

MEDIEVAL STUDIES

Chair:
Dr. Paul Barrette (French)

A major concentration in Medieval Studies consists of Medieval Studies 201 and 403 and 21 hours of upper-division courses concerned primarily with the medieval experience, divided among the following three categories: (1) history, philosophy, political science, and religious studies; (2) language and literature; (3) the arts: history of art, architecture, music, and speech and theatre. Courses should either form a related pattern or revolve around a particular discipline or closely related disciplines. The major concentration shall consist of 30 semester hours distributed across the categories listed above for the major. Each student's program, major or minor, must be approved in advance by the Medieval Studies Coordinator and the Medieval Studies Committee, chairperson Dr. Paul Barrette.

Category #1—History, Philosophy, and Political Science: History 312 Medieval History: 300-1100 (3); History 313 Medieval History: 1100-1400 (3); History 330 History of England to 1688 (3); History 334 History of Germany to 1815 (3); History 369 History of the Middle East (3); History 474 Studies in Medieval and Early European History (3); Philosophy 322 Medieval Philosophy (3); and Political Science 475 Ancient and Medieval Political Thought (3).

Category #2—Language and Literature: Classics 435 Medieval Latin (3); English 371 Foundations of the English Language (3); English 401 Medieval Literature (3); English 402 Chaucer (3); French 410 Medieval French Literature (3); Italian 401 Dante and Medieval Culture (3); and Italian 402 Petrarch and Boccaccio (5).

Category #3—The Arts: Architecture 415 Seminar in Medieval Architecture (3); Art 371 Early Christian and Byzantine Art to 1350 (3); Art 372 Northern European Painting, 1350-1600 (3); Art 381 Medieval Art of the West, 800-1450 (3); and Art 398C The Art of Italy, 1250-1400 (3); and Music History 210 History of the Music to 1750 (3).

RUSSIAN AND EAST EUROPEAN STUDIES

Chair:
Dr. Donal Flene (Germanic and Slavic Languages)

The major concentration consists of 30 hours from the following: Geography 375, six hours from History 340-341, Philosophy 385, Political Science 459 and four additional hours from Political Science 469, 574; Russian 311-312; Russian and East European Studies 410; and additional hours in courses numbered 301 and above offered by the Russian section of the Department of Germanic and Slavic Languages. Recommended prerequisites to the major concentration are the completion of Russian 201-202 and Russian Culture 371-372.

URBAN STUDIES

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

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

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

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

Approved Courses in other departments: Geography 355 Geography of Appalachia;
WOMEN'S STUDIES

Chair:
Dr. Martha L. Osborne (Philosophy)

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

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

The major concentration in Women’s Studies consists of 30 semester hours including one of the Images of Women in Literature courses (either 210 or 215), Women in Society (220), Emergence of the Modern American Woman (310), at least three hours of Independent Study (483), and at least one course from each of the three major areas: Women’s Heritage (324, 326, 330, 332, 425, 426, 429), Contemporary Issues (375, 382, 410, 425, 434), and Literature and the Arts (330, 332, 422). As its content varies, 400 may be included in any of these areas. Students are encouraged to take at least nine hours in one of these areas.

The Women’s Studies minor consists of one of the Images of Women in Literature courses (either 210 or 215), Women in Society (220), and an additional 12 hours of upper-division Women’s Studies courses. Approved special topics courses related to Women’s Studies may also be applied toward a major or a minor.

ITALIAN

See Romance Languages.

JAPANESE

See Interdisciplinary Programs (Asian Studies).

LATIN

See Classics.

LATIN AMERICAN STUDIES

See Interdisciplinary Programs.

LINGUISTICS

See Interdisciplinary Programs.

MATHEMATICS

Professors:
J.B. Conway (Head), Ph.D. Louisiana State; G.E. Albert (Emeritus), Ph.D. Wisconsin; N. Alia, Ph.D. Brown, V. Alexiades, Ph.D. Delwars; D.F. Anderson, Ph.D. Chicago; C.A. Baker, Ph.D. Cornell; J.S. Bradley, Ph.D. Iowa; J.H. Carruth, Ph.D. Louisiana State; C.E. Clark, Ph.D. Florida State; R.J. Deaver, Ph.D. Wisconsin; D.J. Deassart, Ph.D. Maryland; D.E. Dobbs, Ph.D. Brown; G. Dyblek, Ph.D. Warsaw (Poland); E.D. Eaves (Emeritus), Ph.D. Texas; H. Frandsen, Ph.D. Illinois; T.G. Hallam; Ph.D. Missouri; D.B. Hinton, Ph.D. Tennessee; A.S. Householder (Emeritus), Ph.D. Chicago; L.S. Husch, Ph.D. Florida State; K. Johannson, Ph.D. Bielefeld, West Germany; G.S. Jordan, Ph.D. Wisconsin; B.A. Kupershmidt (Space Institute, Tuliahoma), Ph.D. Massachusetts Institute Technology; H.T. Mathews, Ph.D. Tulane; R.M. McConnel, Ph.D. Duke; D.D. Miller (Emeritus), Ph.D. Michigan; B.S. Raup, Ph.D. Illinois; R. Reddy (Space Institute, Tuliahoma); H.D. Indian Institute of Technology, P.W. Schaefeer, Ph.D. Maryland; S.M. Serbin, Ph.D. Cornell; K. Soni, Ph.D. Oregon State; F.W. Stallmann (Emeritus), Ph.D. Giessen (Germany); K.R. Stephenson, Ph.D. Wisconsin, E. Wachpress, Ph.D. R. Sekeres, Ph.D. Institute of Technology; W.R. Wade, Ph.D. California (Riverside); C.G. Wagner, Ph.D. Duke.

Associate Professors:
L.J. Gross, Ph.D. Cornell; O. Karakashian, Ph.D. Harvard; R. Kimball (Space Institute, Tuliahoma), Ph.D. Ohio State; Y. Kuo, Ph.D. Cincinnati; S. Lenhart, Ph.D. Kentucky; S. Mulay, Ph.D. Purdue; J. Rosinski, Ph.D. Wroclaw University; W. H. Row, Jr., Ph.D. Wisconsin, H. Simpson, Ph.D. California Institute of Technology; J. Smith, Ph.D. California (Berkeley); B.K. Soni (Space Institute, Tuliahoma), Ph.D. Texas; R.P. Soni, Ph.D. Oregon State; C. Sundberg, Ph.D. Wisconsin; M. Thistlethwaite, Ph.D. Univ. Manchester (England).

Assistant Professors:

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

All entering freshman and all other students who have not completed a college level mathematics course, except students who have received an A grade in the College Level Mathematics Placement Exam before enrolling in a mathematics course. Placement in the appropriate course will be determined by the score on the exam. Ordinarily a student will not be allowed to enroll in a course at a level above that determined by his or her placement exam score. In exceptional circumstances, students will have the right to appeal their placement to the Mathematics Department. Placement in the appropriate course will determine the honors category: GPA at least 3.4 - Honors; GPA at least 3.6 - Highest Honors. Students with credit for more than 12 hours in Mathematics 499 and Mathematics courses numbered 421 through 472. The grade point average computed on the 24 hours of Mathematics courses consisting of 323, 341, 351, and 371, plus the aforementioned 12 hours, will determine the honors category: GPA at least 3.4 - Honors; GPA at least 3.6 - Highest Honors.

Honors B.S. Major: Candidates for an honors degree in Mathematics must fulfill all of the requirements for the B.S. degree in Mathematics, but take 12 (rather than 9) hours in Mathematics 499 and Mathematics courses numbered 421 through 472. The grade point average computed on the 24 hours of Mathematics courses consists of 323, 341, 351, and 371, plus the aforementioned 12 hours, will determine the honors category: GPA at least 3.4 - Honors; GPA at least 3.6 - Highest Honors.

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

MEDIEVAL STUDIES

See Interdisciplinary Programs.

MEDICAL BIOLOGY/MEMORIAL RESEARCH CENTER

The Department of Medical Biology of the College of Medicine-Knoxville Unit was formed from the faculty of the University Memorial Research Center and Hospital in 1978. The Research Center was established in 1956. The faculty has research, education, and service interests in cancer, blood diseases, metabolism, neuroscience, birth defects, cytogenetics and clinical genetics. Courses in these areas are offered to students at the graduate and undergraduate levels. Elective courses are also available to students in the College of Medicine.

The faculty with the College of Veterinary Medicine participates in the graduate program leading to M.S. and Ph.D. degrees in Comparative and Experimental Medicine. Other advanced degree students can do thesis research in the department by arrangement with other life science departments at the University.

MICROBIOLOGY

Professors:
Gary L. Savage (Head), Ph.D. California (Berkeley); R.W. Beck (Emeritus), Ph.D. Wisconsin; J.M. Becker, Ph.D. Cincinnati; D.A. Wagner, Ph.D. Duke.
B.S. Major: Prerequisites are Biology 150 or 110-120, 210-220, Chemistry 120-130, and Mathematics 151-152 or 141-142, and Physics 221-222 or 231-232. The major consists of Chemistry 350-360-363, Biochemistry 410, Microbiology 310, 319, 320, 329, 12 additional hours of 400-level Microbiology courses.

Honors B.S. Major: An honors major is offered to selected students who have achieved junior standing and have completed the required 300-level Microbiology courses with a minimum grade point average of 3.5 for Microbiology courses and 3.2 for all courses.

In June of 1991, the merger of the Departments of Music and Music Education into a single unit within the College of Liberal Arts was approved by the Board of Trustees. All inquiries regarding degrees in music and music education should be directed to the Department of Music.

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

Students seeking entrance to applied music courses must be concurrently registered for no less than six credit hours in academic courses. Graduate students must be concurrently registered for no less than three credit hours in academic courses. Exceptions to these requirements may be made with the approval of the department head if applied music registration is necessary to completion of degree requirements.

Admission into applied music is measured by proficiency (Jury) examination. Students who do not meet proficiency requirements at any level may be required additional study at that level. Course level and credit hours will be determined by the applied faculty.

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

Bachelor of Arts Major in Music Degree Prerequisites to the major consists of: Music History 200, 8 hours in applied music numbered 200 and above, distributed as follows: Music History 200, 210, 220, Applied Study (Music Performance) at the 103-190 levels, and 2-4 credit hours in courses numbered 200 and above, distributed as follows: Music History 200, 8 hours in applied music, and 6 hours in music electives.

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

**B.M. Curriculum in Composition**

<table>
<thead>
<tr>
<th>Freshman</th>
<th>Hours Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>English Composition</td>
<td>6</td>
</tr>
<tr>
<td>Music Theory 110, 120</td>
<td>6</td>
</tr>
<tr>
<td>Music Theory 130, 140</td>
<td>2</td>
</tr>
<tr>
<td>Music History 200</td>
<td>3</td>
</tr>
<tr>
<td>Music Keyboard 110, 120</td>
<td>2</td>
</tr>
<tr>
<td>Music Ensemble</td>
<td>2</td>
</tr>
<tr>
<td>Foreign Language</td>
<td>6</td>
</tr>
<tr>
<td>Music General 200</td>
<td>0,0</td>
</tr>
<tr>
<td>Liberal Arts Elective (not in Music)</td>
<td>3</td>
</tr>
</tbody>
</table>

**Sophomore**

| Music Theory 210, 220 | 6 |
| Music Theory 230, 240 | 2 |
| Music History 210, 220 | 6 |
| Music Keyboard 210, 220 | 2 |
| Music Ensemble | 2 |
| Music Theory 250 | 2,2 |
| Music Theory 290 | 3 |
| Non-U.S. History or Social Science | 6 |
| Music General 200 | 0,0 |
| Electives | 3 |

**Junior**

| Music Theory 310, 320, 340, 390 | 12 |
| Music History (300 or above) | 3 |
| Applied Music 394 | 3,3 |
| Applied Music | 1,1 |
| Music Ensemble | 2 |
| Music General 200 | 0,0 |
| Mathematics, or Natural Science | 6 |
| Electives | 3 |

**Senior**

| Music Theory 430, 440 | 3,3 |
| Applied Music 494 | 3,3 |
| Applied Music | 2 |
| Music Ensemble | 2 |
| Music History or Theory (300 level or above) | 3 |
| Music General 200 | 0,0 |
| General Education | 6 |
| Electives | 3 |

**Total: 130 hours**

**B.M. Curriculum in Electronic Music**

<table>
<thead>
<tr>
<th>Freshman</th>
<th>Hours Credit</th>
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<tbody>
<tr>
<td>English Composition</td>
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<tr>
<td>Music Theory 110, 120</td>
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<td>Music Theory 130, 140</td>
<td>2</td>
</tr>
<tr>
<td>Music History 200</td>
<td>3</td>
</tr>
<tr>
<td>Music Keyboard 110, 120</td>
<td>1,1</td>
</tr>
<tr>
<td>Music Ensemble</td>
<td>2</td>
</tr>
<tr>
<td>Foreign Language</td>
<td>6</td>
</tr>
<tr>
<td>Music General 200</td>
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<tr>
<td>Physics 181</td>
<td>3</td>
</tr>
<tr>
<td>General Education</td>
<td>3</td>
</tr>
</tbody>
</table>

**Sophomore**

| Computer Science 102 | 4 |
| Music Theory 210, 220 | 6 |
| Music Theory 230, 240 | 2 |
| Music History 210, 220 | 1,1 |
| Music Keyboard 210, 220 | 1,1 |
| Music Ensemble | 1 |
| Music Theory 250 | 2,2 |
| Music Ensemble 313 | 2 |
| Music Theory 290, 390 | 6 |
| Music General 200 | 0,0 |

**Junior**

| Music Performance 395 | 6 |
| Applied Music | 1,1 |
| Applied Music Theory 310, 320, 340, 430, 440 | 15 |

**B.M. Curriculum in Multiple Keyboard Instruments (Piano, Organ, Harpsichord)**

<table>
<thead>
<tr>
<th>Freshman</th>
<th>Hours Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>English Composition</td>
<td>6</td>
</tr>
<tr>
<td>Music Theory 110, 120</td>
<td>6</td>
</tr>
<tr>
<td>Music Theory 130, 140</td>
<td>2</td>
</tr>
<tr>
<td>Music History 210, 220</td>
<td>6</td>
</tr>
<tr>
<td>Applied Music 394</td>
<td>3,3</td>
</tr>
<tr>
<td>Applied Music</td>
<td>1,1</td>
</tr>
<tr>
<td>Non-U.S. History, or Social Science</td>
<td>6</td>
</tr>
<tr>
<td>Music General 200</td>
<td>0,0</td>
</tr>
<tr>
<td>Electives</td>
<td>12</td>
</tr>
</tbody>
</table>

**Sophomore**

| Music Theory 210, 220 | 6 |
| Music Theory 230, 240 | 2 |
| Music History 210, 220 | 6 |
| Applied Music Principal (200 level) | 6 |
| Applied Music Secondary | 2 |
| Music Ensemble | 2 |
| Foreign Language | 6 |
| Music General 200 | 0,0 |

**Junior**

| Music History Elective | 3 |
| Applied Music Principal (300 level) | 6 |
| Applied Music Secondary | 2 |
| Music Theory 310 | 3 |
| Music Ensemble | 2 |
| Mathematics, or Natural Science | 6 |
| Music Keyboard Literature | 8 |
| Music General 200 | 0 |
| Music General 200 | 0 |
| Music General 301 | 0 |

**Senior**

| Music Education 310 | 3 |
| Applied Music Principal (400 level) | 6 |
| Music Ensemble | 2 |
| Music Theory 310 | 3 |
| Music Ensemble | 2 |
| Music Keyboard Literature | 2 |
| General Education | 6 |
| Electives | 12 |
| Music General 200 | 0 |
| Music General 200 | 0 |
| Music General 200 | 0 |

**Total: 128 hours**

**B.M. Curriculum in Multiple Woodwind Instruments**

<table>
<thead>
<tr>
<th>Freshman</th>
<th>Hours Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>English Composition</td>
<td>6</td>
</tr>
<tr>
<td>Music Theory 110, 120</td>
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<tr>
<td>Music Theory 130, 140</td>
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</tr>
<tr>
<td>Music History 200</td>
<td>3</td>
</tr>
<tr>
<td>Music Keyboard 110, 120</td>
<td>2</td>
</tr>
<tr>
<td>Music History/Literature (300 or above)</td>
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</tr>
<tr>
<td>Music General 100</td>
<td>4</td>
</tr>
</tbody>
</table>

**Sophomore**

| Music Theory 210, 220 | 6 |
| Music Theory 230, 240 | 2 |
| Music History 210, 220 | 6 |
| Music Keyboard 210, 220 | 2 |
| Applied Music | 4 |
| Music Ensemble | 2 |
| Art History | 6 |
| Foreign Language | 6 |
| Music General 200 | 0,0 |

**Junior**

| Music Theory 310, 320 | 6 |
| Music Theory 390 | 3 |
| Music History/Literature (300 level or above) | 9 |
| Music Theory 300 or above | 3 |
| Music Education 310 | 3 |
| Music Ensemble | 2 |
| Natural Science or Mathematics | 6 |
| Music General 200 | 0,0 |

**Senior**

| Music History 493 | 3 |
| Music History/Literature (300 or above) | 6 |
| Applied Music | 4 |
| Music Ensemble | 2 |
| Music General 200 | 0,0 |
| Non-U.S. History, Social Science | 6 |
| Music Electives | 15 |

**Total: 129 hours**

1. Humanities-Arts (Non-music), Literature, Philosophical Perspectives or Interdisciplinary Studies.
## B.M. Curriculum in Music Theory

### Freshman Hours Credit
- **English Composition** .................................................. 6
- **Music Theory 110, 120** ................................................. 6
- **Music History 130, 140** ............................................... 2
- **Music History 200** ..................................................... 3
- **Music Keyboard 110, 120** ........................................... 2
- **Music Ensemble** ....................................................... 2
- **Foreign Language** ..................................................... 3
- **Mathematics or Natural Science** .................................. 3

Total: 129 hours

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

### B.M. Curriculum in Piano

### Freshman Hours Credit
- **English Composition** .................................................. 6
- **Music Theory 110, 120** ................................................. 6
- **Music Theory 130, 140** ............................................... 2
- **Music History 200** ..................................................... 3
- **Music Performance 200** ............................................. 6
- **Foreign Language** ..................................................... 3
- **Music Ensemble** ....................................................... 3
- **Electives** .................................................................... 6
- **Music General 200** .................................................... 0

Total: 130 hours

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

### B.M. Curriculum in Organ

### Freshman Hours Credit
- **English Composition** .................................................. 6
- **Music Theory 110, 120** ................................................. 6
- **Music Theory 130, 140** ............................................... 2
- **Music History 200** ..................................................... 3
- **Music Performance 200** ............................................. 6
- **Elective** ...................................................................... 3
- **Music General 200** .................................................... 0

Total: 130 hours

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

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

### Freshman Hours Credit
- **English Composition** .................................................. 6
- **Music Theory 110, 120** ................................................. 6
- **Music Theory 130, 140** ............................................... 2
- **Music History 200** ..................................................... 3
- **Music Performance 200** ............................................. 6
- **Elective** ...................................................................... 3
- **Music General 200** .................................................... 0

Total: 130 hours

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

### B.M. Curriculum in Sacred Music (Organ or Piano)

### Freshman Hours Credit
- **English Composition** .................................................. 6
- **Music Theory 110, 120** ................................................. 6
- **Music Theory 130, 140** ............................................... 2
- **Music Performance 200** ............................................. 6
- **Foreign Language** ..................................................... 3
- **Music Ensemble** ....................................................... 3
- **Elective** ...................................................................... 6
- **Music General 200** .................................................... 0

Total: 130 hours

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

### B.M. Curriculum in Strings

### Freshman Hours Credit
- **English Composition** .................................................. 6
- **Music Theory 110, 120** ................................................. 6
- **Music Theory 130, 140** ............................................... 2
- **Music Performance 200** ............................................. 6
- **Elective** ...................................................................... 6
- **Music General 200** .................................................... 0

Total: 130 hours

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

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

### Freshman Hours Credit
- **English Composition** .................................................. 6
- **Music Theory 110, 120** ................................................. 6
- **Music Theory 130, 140** ............................................... 2
- **Music History 200** ..................................................... 3
- **Music Performance 200** ............................................. 6
- **Elective** ...................................................................... 3
- **Music General 200** .................................................... 0

Total: 130 hours

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

### B.M. Curriculum in Sacred Music (Organ or Piano)

### Freshman Hours Credit
- **English Composition** .................................................. 6
- **Music Theory 110, 120** ................................................. 6
- **Music Theory 130, 140** ............................................... 2
- **Music Performance 200** ............................................. 6
- **Elective** ...................................................................... 6
- **Music General 200** .................................................... 0

Total: 130 hours

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

### B.M. Curriculum in Strings

### Freshman Hours Credit
- **English Composition** .................................................. 6
- **Music Theory 110, 120** ................................................. 6
- **Music Theory 130, 140** ............................................... 2
- **Music Performance 200** ............................................. 6
- **Elective** ...................................................................... 6
- **Music General 200** .................................................... 0

Total: 130 hours

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

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

### Freshman Hours Credit
- **English Composition** .................................................. 6
- **Music Theory 110, 120** ................................................. 6
- **Music Theory 130, 140** ............................................... 2
- **Music History 200** ..................................................... 3
- **Music Performance 200** ............................................. 6
- **Elective** ...................................................................... 3
- **Music General 200** .................................................... 0

Total: 130 hours

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

### B.M. Curriculum in Sacred Music (Organ or Piano)

### Freshman Hours Credit
- **English Composition** .................................................. 6
- **Music Theory 110, 120** ................................................. 6
- **Music Theory 130, 140** ............................................... 2
- **Music Performance 200** ............................................. 6
- **Elective** ...................................................................... 6
- **Music General 200** .................................................... 0

Total: 130 hours

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

### B.M. Curriculum in Strings

### Freshman Hours Credit
- **English Composition** .................................................. 6
- **Music Theory 110, 120** ................................................. 6
- **Music Theory 130, 140** ............................................... 2
- **Music Performance 200** ............................................. 6
- **Elective** ...................................................................... 6
- **Music General 200** .................................................... 0

Total: 130 hours

1. **Humanities-Arts (non-music), Literature, Philosophical Perspectives, Interdisciplinary Studies.**
B.M. Curriculum in Studio Music and Jazz

<table>
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<th>Course</th>
<th>Hours</th>
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</thead>
<tbody>
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<td>English Theory 110, 120</td>
<td>6</td>
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<tr>
<td>English Theory 100, 140</td>
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<tr>
<td>Music History 210, 220</td>
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<tr>
<td>Music History 310, 320</td>
<td>6</td>
</tr>
<tr>
<td>Music Theory 100, 110, 120</td>
<td>6</td>
</tr>
<tr>
<td>Music Keyboard 100, 110, 120</td>
<td>6</td>
</tr>
<tr>
<td>Music Ensemble</td>
<td>2</td>
</tr>
<tr>
<td>Music Theory 130, 140</td>
<td>2</td>
</tr>
<tr>
<td>English Composition</td>
<td>6</td>
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<tr>
<td>English Theory 110, 120</td>
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<tr>
<td>English Theory 100, 140</td>
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<td>Music Theory 100, 110, 120</td>
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<td>Music Ensemble</td>
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<tr>
<td>Music Theory 130, 140</td>
<td>2</td>
</tr>
<tr>
<td>Total: 130 hours</td>
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</tbody>
</table>

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

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours</th>
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<tbody>
<tr>
<td>English Composition</td>
<td>6</td>
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<tr>
<td>English Theory 110, 120</td>
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<td>Music Ensemble</td>
<td>2</td>
</tr>
<tr>
<td>Music Theory 130, 140</td>
<td>2</td>
</tr>
<tr>
<td>English Composition</td>
<td>6</td>
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<tr>
<td>English Theory 110, 120</td>
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<td>Music Ensemble</td>
<td>2</td>
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<tr>
<td>Music Theory 130, 140</td>
<td>2</td>
</tr>
<tr>
<td>Total: 131 hours</td>
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</tr>
</tbody>
</table>
Sellen (Charles Ellmore's Research Scholar), Ph.D. Chicago; C.C. Shih, Ph.D., Cornell; P.H. Stelson, Ph.D. Massachusetts Institute of Technology; M.R. Strayer, Ph.D. Massachusetts Institute of Technology; J.R. Thompson, Ph.D., Duke; J.O. Thomson, Ph.D. Illinois; J.W. White (Emeritus), Ph.D. North Carolina.

Associated Professors: F.E. Barnes, Ph.D. Cal Tech; S.B. Elston, Ph.D. University of Massachusetts; T. Ferral, Ph.D. Clemson; T.H. Handler, Ph.D. Rutgers; R.W. Lide (Emeritus), Ph.D. Michigan; J.W. Mushahuer (UTSI), Ph.D; T.D. Martin, Ph.D. Tennessee; S.Y. Shieh, Ph.D. Maryland; S.P. Sorensen, Ph.D. Copenhagen (Denmark).

Instructors: G. Canevich, Ph.D. Tennessee; S.J. Sunt, Ph.D. Queens (Kingston, Ontario, Canada); R. Harmatz, Ph.D. Ohio State; R. Menzel (UTSI), Ph.D. Iowa; D.M. Welborn, Ph.D. Texas.

Assistant Professors: I. Kamychkou, Ph.D. ITEP (Russia); J. Zhane, Ph.D. Queens (Kingston, Ontario, Canada); R. DeSerio, Ph.D. Chicago.

Lecturer: R. Deserio, Ph.D. Chicago.

PHYSICS

B.S. Major: The undergraduate physics major provides a thorough introduction to all of the core disciplines of physics so that students are prepared to pursue related specialties at a later point in their career. Students with special interests are encouraged to pursue those interests through research projects and/or independent study under the direction of members of the physics faculty through course numbered 300 and above.

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

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

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

Accounting 201 and 202. Majors must earn a "C" or better in prerequisite and corequisite courses. The concentration consists of 24 hours of upper division course work in Political Science and 12 hours of upper division course work in Economics. In Political Science, students must include one course in each of the four fields of Political Science: American Government and Politics/Public Administration, Comparative Government and Politics, International Relations, and Political Theory. Students must also take Political Science 340, 440, 441 and 442. In Economics majors students take Economics 311, 471, and 472.

POLITICAL SCIENCE


Associate Professors: R.B. Cunningham, Ph.D. Indiana; G.C. Evans, Ph.D. Columbia; P.K. Freedman, Ph.D. Wisconsin; M.M. Gart (Head), Ph.D. Michigan State; R.L. Peterson, Ph.D. Yale; J.M. Scheb, Ph.D. Florida; T.M.C. Simpson, III, Ph.D. Johns Hopkins.

Assistant Professors: D.H. Folz, Ph.D. Tennessee; D.J. Houston, Ph.D. SUNY - Binghamton; L.E. Richardson, Ph.D. Tennessee; J.E. Lawler, Ph.D. North Carolina; K.A. Lawler, Ph.D. North Carolina; J.W. Lounsbury, Ph.D. Michigan State; J.F. Lubar, Ph.D. Chicago; J.C. Malone, Ph.D. Duke; K.R. Newton (Emeritus), Ph.D. Tennessee; H.R. Pollio (Alumni Distinguished Service Professor), Ph.D. Michigan; F. Samejima, Ph.D. Keio (Japan); R.A. Saudargas, Ph.D. Florida State; R.S. Shadr (Emeritus), Ph.D. Tennessee; E.D. Sundstrom, Ph.D. Utah; C.B. Travis, Ph.D. California (Davis); R.G. Wahler, Ph.D. Washington; J.A. Wilberly (Emeritus), Ph.D. Syracuse.

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

United States Government and Politics/Comparative Government and Politics:


Comparative Government and Politics: 350, 355, 361, 452, 454, 455, 459, 460, 461, 463, 464

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

Political Theory and Methodology: 301, 374, 475 and 476

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

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

Honors in Political Science: The Honors concentration encourages highly motivated students to obtain a superior liberal education and more rigorous preparation in the discipline. Admission is selective. The Honors concentration is normally a two year program. Political Science 101 or 107 and 102 are prerequisites to the major which consists of thirty hours: Political Science 301, 387-388, 487-488, and 15 additional hours, which must include at least one course in each of the four areas of the discipline described under the B.A. major.

Political Science 387 and 388 may be used to satisfy this requirement in the appropriate area.

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

Major in Political Science with a Concentration in Public Administration: Students majoring in Political Science who wish to prepare for a career in the public service may select to follow the concentration in Political Science. Political Science 101 or 107 and 302 and Economics 201 are prerequisites to a major in Political Science with a concentration in Public Administration. Corequisite courses are Mathematics 121 and 122 and

Accounting 201 and 202. Majors must earn a "C" or better in prerequisite and corequisite courses. The concentration consists of 24 hours of upper division course work in Political Science and 12 hours of upper division course work in Economics. In Political Science, students must include one course in each of the four fields of Political Science: American Government and Politics/Public Administration, Comparative Government and Politics, International Relations, and Political Theory. Students must also take Political Science 340, 440, 441 and 442. In Economics majors students take Economics 311, 471, and 472.

PSYCHOLOGY

Professors: Warren H. Jones (Head), Ph.D. Oklahoma State University; G.M. Burghardt, Ph.D. Chicago; A.G. Burstine, Ph.D. Chicago; W.H. Calhoun, Ph.D. California (Berkeley); C.P. Cohen, Ph.D. Kansas; H.J. Fine (Emeritus), Ph.D. Syracuse; S.J. Handler, Ph.D. Johns Hopkins; L. Handler, Ph.D. Michigan State; J.E. Lawler, Ph.D. North Carolina; K.A. Lawler, Ph.D. North Carolina; J.W. Lounsbury, Ph.D. Michigan State; J.F. Lubar, Ph.D. Chicago; J.C. Malone, Ph.D. Duke; K.R. Newton (Emeritus), Ph.D. Tennessee; H.R. Pollio (Alumni Distinguished Service Professor), Ph.D. Michigan; F. Samejima, Ph.D. Keio (Japan); R.A. Saudargas, Ph.D. Florida State; R.S. Shadr (Emeritus), Ph.D. Tennessee; E.D. Sundstrom, Ph.D. Utah; C.B. Travis, Ph.D. California (Davis); R.G. Wahler, Ph.D. Washington; J.A. Wilberly (Emeritus), Ph.D. Syracuse.

Associate Professors: M.G. Johnson, Ph.D. Johns Hopkins; A. McIntyre, Ph.D. Yale; W.G. Morgan, Jr., Ph.D. Tennessee; M.R. Nash, Ph.D. Ohio.

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

Major: The Department offers two concentrations, General and Academic. The General Concentration is broad major with many options. The Academic Concentration is intended for those students planning post-graduate study in psychology or a related field and has fewer options.

The Concentration in General Psychology requires completion of Psychology 210 or 220, 375, or 395; three courses from Psychology 300 (or Child and Family Studies 312), 310, 320, 330 (or Educational & Counseling Psychology 431), 360 (or Sociology 370); and two elective courses from the 300 level or options include Anthropology 302, 306, Audiology & Speech Pathology 320, Child & Family Studies 312, Geography 323, Nursing 317, Religious Studies 355, and Management 321 and 431.

All students wishing to follow the Academic Concentration must satisfy prerequisites of Mathematics 121 and 115 or Statistics 201, one year of a biological science (e.g. Biology 110-120), Psychology 110 with a grade of C or better, and have a GPA of at least 2.25. Completion of this Concentration requires (1) Psychology 355 and one semester of 366; (2) Two courses from Psychology 300, 310, 320, 330, 360 and 370; (3) One course from
Psychology 410, 450, and 461; (4) One course from Psychology 400, 420, and 480; (5) One course from Psychology 440, 445, and 470; (6) Psychology 496; (7) One semester of 459, 469, and 498; and (8) One elective course at the 300 and 400 level.

Major and Non-major Lower and Upper-Division Course Prerequisites: Psychology 110 or equivalent, and 210 or 220 are the minimum prerequisites for upper-division courses for both majors and non-majors unless otherwise specified or open to students who obtain instructor consent.

At least 6 credit hours in 300 level courses are ordinarily prerequisite for 400 level courses. Consult the catalog description of each course for specific prerequisites or exceptions.

For students who plan to seek graduate training in Psychology: Applicants to most graduate programs in Psychology are expected to take the Graduate Record Examination in Psychology by December of the year preceding the year they plan to graduate. The Psychology Department recommends that a prospective graduate student complete as many of the requirements for the major as possible before taking the examination. In addition to the minimum requirements for the major, the following courses are strongly recommended for prospective graduate students in psychology: one year of Calculus; one course in Computer Science: Philosophy 110-111; two or three additional Psychology courses chosen from 400, 410, 420, 430, 440, 445, 450, 461, 470, 480, 496.

Minor: Consists of 110 or equivalent; 210 or 220; and 12 additional upper-division hours.

RELIGIOUS STUDIES

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

Associate Professors: J.L. Fitzgerald, Ph.D. Chicago; R.W. Gwyne, Ph.D. Yale; D.D. Aberdeen; J.O. Hodges, Ph.D. Chicago; M.L. Levering, Ph.D. Harvard.

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

Major: The basic concentration is designed to assure that students attain skills to analyze and interpret religious phenomena, at least one of which must be 499. The remaining 3 hours which complete this major shall not include related language courses.

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

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

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

ROMANCE LANGUAGES

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

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

Assistant Professors: F. Brizio, Ph.D. Washington; O. Cazenave, Ph.D. Penn State; C. Cox (Emeritus), M.A. Tennessee; B. Crecel, Ph.D. California; Jose Da Cruz, Ph.D. University of California; L. Ehrlich, Ph.D. Hawaii; C. Haimkund, Ph.D. Wisconsin; E. Johnson, Ph.D. Pennsylvania; J. Lacure, Ph.D. Indiana; M. Miller, Ph.D. Texas (Austin); H. Sachs, Ph.D. Cornell University; Wilson (Emeritus), M.A. Tufts; D. Young, Ph.D. Texas.

Instructors: A. McKeeby, M.A. Tulane; M.T. Rabot, Cert. de L'Institut des Lettres.

French Major: Consists of 31 hours in courses numbered 311 and above. All majors must have the following courses (or their equivalent with consent of the department): 311-312, 313, 341 or 342 or 345, 421, 422, 440.

Literature concentration students must also have 6 hours of literature at the 400 level, 3 hours of which must be either 410, 411, 412, 413, 414, or 415; 3 hours of language-oriented or civilization courses at the 300 or 400 levels. Language concentration students must also have 9 hours of language-oriented or civilization courses at the 300 or 400 levels.

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

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

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

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

Spanish Major: Consists of 30 hours in courses numbered 311 or above. The following are required: 311, 312, 421, 422, 459-460.

Students must also have a minimum of 3 hours of civilization, either 431 or 471; a minimum of 6 hours of conversation and composition from 323, 324, 423, 424; and a minimum of 6 hours of literature from 432, 433, 435, 436, 450, 472, 473, 474, 479. Majors are encouraged to take as many hours as possible, especially the surveys. 435-436 and 473-474. Students must also take 459 and 460.

Spanish Minor: Consists of 18 hours in courses numbered 311 or above, including 311 and 312; 422; one course in conversation and composition from among the following: 323, 324, 423, 424; and the remaining courses to be chosen among conversation and composition, civilization, phonetics, or literature. Students pursuing a minor are strongly advised to consult with a departmental advisor.

Courses which are the equivalents of the foregoing may be substituted with the consent of the department. Courses taught in another language, literature in English translation, however, may not be counted toward either a major or minor.

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

(a) Language Major: (1) French major consists of 32 hours. The following are required: French 199, 311-12, 313, 341, 345, 400, 422, 432, 440, and 3 hours of 491 or 483. (b) Spanish major consists of 32 hours. The following are required: Spanish 199, 311-12, 323, 345, 422, 423, 431 or 471, 459-60, 3 hours of 491 and any 400-level literature course.

(b) Professional Emphasis: (1) Internationally Business students will take 28 hours.
The following are required: Accounting 201, Economics 201 or 207 and 321, Business Administration 311 and 495, Management 471, Logistics and Transportation 441, and an elective from a related business area chosen in consultation with an advisor. (2) International Logistics and Transportation students will take 25 hours. The following are required: Accounting 201, Economics 201 or 207, Business Administration 311 and 495, Management 471, and Logistics and Transportation 301, 302, and 441.

(c) Practical experience: Through French 491 or 493, or Spanish 491, each L&WB student must undertake study abroad, an internship, or a relevant research project for a minimum of 3 hours (included in major requirements). Additionally, L&WB students must consult an advisor in the Department of Romance Languages for help in selecting relevant courses under the Basic Skills and Distribution requirements of the College.

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

For further information, inquire in 601 McClung Tower.

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

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

Study Abroad: Four summer study abroad opportunities are available to students through the Department of Romance Languages. The department sponsors programs in Brazil (Fortaleza), France (Lille), Italy (Urbino), and Spain (Madrid). Students can earn up to six credit hours by participating in these programs. In most cases, students will fulfill part or all of the foreign language requirement (completion of the elementary or intermediate level).

Upper division courses in literature, culture, and language are also available for major and minor credit. Participation in these programs will satisfy the foreign study requirements for the Language and World Business degree. A faculty member accompanies students on the program. In addition to formal classes held at a major university in the city, group excursions to cultural and historical sites are an integral part of the programs. For more information concerning prerequisites, lodging arrangements, costs, and dates of an individual program, contact the Department of Romance Languages, 601 McClung Tower.

RUSSIAN
See Germanic and Slavic Languages.

RUSSIAN AND EAST EUROPEAN STUDIES
See Interdisciplinary Programs.

SOCIOLGY

Professors:

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

Associate Professors:

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

Assistant Professors:

S. Cable, Ph.D. Pennsylvania State; A. Jalata, Ph.D. SUNY-Binghamton.

Instructor:

D.K. Hams, M.A. Tennessee.

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

Minor: The minor consists of 12 upper-division hours in sociology and must include 321 and 331. Prerequisites to the minor are six lower-division hours in sociology which must include 100 or 110, followed by 200. The major consists of 24 upper-division hours in sociology and must include 321 and 331. Students should complete these two courses by the end of their junior year.

Concentration in Criminal Justice: All prerequisites and upper-division courses required for general majors are required for this concentration.

Concentration in Environmental Sociology: All prerequisites required for the major are required for this concentration. An additional prerequisite is Biology 230 (or a science background package approved by the Sociology Department). The Concentration in Environmental Sociology is designed to prepare students for graduate work in the area of environmental sociology. In addition to the major requirements, students must complete 24 additional hours in sociology which include 321, 331, 360, 442, 446, and one 449 or 447 course.

Concentration in Environment and Society: All prerequisites required for the major are required for this concentration. An additional prerequisite is Biology 230 (or a science background package approved by the Sociology Department). The Concentration in Environment and Society is designed to prepare students for graduate work in the area of environmental sociology. In addition to the major requirements, students must complete 24 additional hours in sociology which include 321, 331, 360, and 442 or 446.

SPANISH
See Romance Languages.

SPEECH COMMUNICATION

Professors:

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

Associate Professors:

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

Assistant Professors:

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

Major: Speech Communication 100 and one course in quantitative analysis (e.g., Speech Communication 295, Math 115, Statistics 201, or the equivalent) are prerequisites to a major which consists of 350, 350, 350, 399, and one course from each of the following two categories: (1) 210, 270, or 280; (2) 300, 320, or 330. An additional 12 hours in Speech Communication courses are required, six of which must be at the 400 level, and not more than three at the 200 level. No more than three hours from Speech Communication 445, 491, 492, 493 may be counted toward the major. Students should inquire in the Department Office for information and recommended advisors.

Minor: Speech Communication 100 is prerequisite to a minor which consists of 18 additional hours of Speech Communication courses at least 12 of which must be at the 300 level and above. No more than three hours from Speech Communication 445, 491, 492, 493 may be counted toward the minor.

STATISTICS
See faculty list in the College of Business Administration.

Liberal Arts students may major or minor in statistics under the supervision of the faculty of the Statistics Department in the College of Business Administration. The major is designed to prepare students for graduate study in statistics or for professional work in various applications of statistical methods.
Minor: Theatre 100 and 220 are prerequisites to a minor which consists of 430 and 15 additional hours of Theatre courses numbered 300 or above, 6 of which must be in history and criticism. General requirements for the master's degree are given in the Graduate Catalog.

**WOMEN'S STUDIES**

See Interdisciplinary Programs.

**ZOLOGY**

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

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

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

Research Associate Professors
T. Ashley, Ph.D. Florida State; F. Tindall, Ph.D. Pennsylvania State.

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

**Major:** Prerequisites to the major are Biology 110-120 or 150 or Zoology 117-118 and Chemistry 120-130. Corequisites are Mathematics 121-122 or 151-152 or 141-142 and a year sequence in physics (except 141-142). Physics 221-222 are recommended and are required for admission to some professional schools.

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

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

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

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

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

Sylvia E. Hart, Dean
Johnnie N. Mozingo, Associate Dean for Undergraduate Programs
Beth Barrel, Director of Student Services

Professors:

Associate Professors:

Instructors:

Assistant Professors:
S.M. Bowen, Ph.D. Tennessee; J. Branson, M.S.N. Vanderbilt; K.P. Conlon, M.S.N. SUNY (Buffalo); K.L. Davis, M.S.N. North Carolina-Chapel Hill; G.W. Evans, M.S.N. Tennessee; S.M. Helton, M.S.N. Texas Woman's; S.M. Hodson-Fitzgerald, M.S. Tennessee; M. Kollar, M.S.N. Vanderbilt; T.A. McKay, M.S.N. California-San Francisco; M.A. Pierce, M.S.N. Tennessee; J.H. Rice, M.N. Emory; D.L. Wilt, M.S. Tennessee.

Instructors:
L.S. Blackburn, M.S.N. Vanderbilt; N. Gaylord, M.S.N. Colorado; P.J. Grace, M.S.N. West Virginia; P.A. Miller, M.S.N. Tennessee-Memphis; M. Wilkinson, M.S.N. Vanderbilt; C.K. Witherington, Ph.D. Tennessee.

The College of Nursing at The University of Tennessee, Knoxville, was established in July 1971 in response to a long-recognized and well established need for nurses prepared at the collegiate level. The undergraduate program combines the unique resources of the UT, Knoxville campus with those of the university's comprehensive teaching hospital and several other cooperating health care agencies in a manner that enables both faculty and students to participate fully in all facets of the health care delivery system. The program is accredited by the National League for Nursing and has full approval status from the Tennessee Board of Nursing.

The baccalaureate nursing program has as its central focus and frame of reference human beings, society, and health. It is based on the belief that nursing has equal concern for the prevention of illness, the promotion of health, and the care of the sick. General education courses, nursing courses, and electives are organized in a manner designed to promote and develop creative thinking and other cognitive, affective, and psychomotor processes that are essential for effective nursing practice and for full and meaningful involvement as a contributing member of society.

A broad base of general education, a thorough study of human behavior, emphasis on health maintenance, health promotion, and health restoration and a strong family and community orientation are essential components of baccalaureate education in nursing. By maintaining a high quality, relevant program that is responsive to the increasing complexity of health care delivery, the ever changing health needs of society, and the changing and expanding role of the nurse, graduates of the program are able to: (1) assume beginning leadership positions in nursing in a variety of settings; (2) work collaboratively with other health professionals; (3) function as socially conscious and contributing citizens; and (4) pursue advanced education on either a formal or an informal basis.

GENERAL REQUIREMENTS
In order to obtain a Bachelor of Science in Nursing degree students are required to successfully complete eight semesters of full-time study or the equivalent in part-time study. Students may complete the entire program at UT, Knoxville or they may take most or all of the lower division component of the program at any regionally accredited college or university. One-hundred twenty-two semester hours are required for graduation. The program is designed to accommodate high school graduates, transfer students from within or external to UT, Knoxville, and registered nurses who hold associate degrees in nursing or who are graduates of diploma nursing programs.

PROGRESSION POLICIES AND PROCEDURES
(1) During the spring semester of the year the student expects to meet all lower division course requirements, she/he must complete a Petition for Progression form and submit it to the college's Student Affairs Office no later than the second Friday of UT, Knoxville's spring semester. If the number of petitions exceeds the number of students that can be accommodated students will be selected on the basis of: (a) cumulative GPA for courses completed; (b) grades in required courses; (c) number of course withdrawals and repetitions; (d) grade improvement over time; and (e) probability of completing all lower division requirements prior to the following fall.

(2) If a student is selected for progression to upper division nursing courses but then fails to successfully complete all lower division requirements prior to the fall semester, the student will not be permitted to enroll in nursing courses and must submit another petition the following year.

(3) Registered nurses must also complete all lower division courses but, at the discretion of the faculty RN advisor, they may enroll in Nursing 305 once they are within 12 semester hours of meeting these requirements. Nursing 301 and 305 must be successfully completed before RN's may challenge or take Nursing 312. Nursing 304 and 312 are pre- or co-requisite to Nursing 315. All junior level courses are pre-requisite to the senior year.

GRADING AND CONTINUATION POLICIES
(1) The minimum acceptable grade for all courses in the curriculum is a "C". The satisfactory/no credit grading option is not available for nursing courses.

(2) No nursing course may be repeated more than once. If a "D" or "F" grade is earned on the second attempt the student will be required to withdraw from the program.
(3) Any student who receives a grade of "D" or "F" for more than two nursing courses will be required to withdraw from the program even if previous courses for which "D's" or "F's" were awarded have been repeated with a grade of "C" or higher.

(4) If a student receives an incomplete "I" in a nursing course, the "I" must be removed prior to enrolling in any course for which the uncompleted course is a prerequisite.

(5) If a student's clinical performance for any nursing course is found to be unsatisfactory, the grade for that course will be an "F" regardless of any other grades earned in other components of the course. If the unsatisfactory clinical performance is characterized by unethical, unprofessional, or unsafe behavior, behavior that actually or potentially places the client in jeopardy, the student will be required to withdraw from the program.

(6) Requirements for competence or certification in cardio-pulmonary resuscitation are included in the Undergraduate Student Handbook.

HEALTH AND INSURANCE REQUIREMENTS

Students must meet specific physical examination and immunization requirements as specified by state law and by the rules and regulations set forth by the various clinical agencies. All non-nurse students must participate in the college's group malpractice and liability insurance program. All registered nurses must provide proof that they have appropriate malpractice-liability insurance coverage. Specific information concerning these requirements will be provided to the students at appropriate times by the nursing faculty and or the Associate Dean for Student Affairs.

COURSE LOAD

The maximum credit hours per semester for which a nursing student may register without special permission is 18.

THE BACHELOR OF SCIENCE IN NURSING CURRICULUM

<table>
<thead>
<tr>
<th>Freshman</th>
<th>Hours Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>English 101, 102</td>
<td>6</td>
</tr>
<tr>
<td>Mathematics 110, 115</td>
<td>6</td>
</tr>
<tr>
<td>Chemistry 100, 110</td>
<td>8</td>
</tr>
<tr>
<td>Humanities</td>
<td>6</td>
</tr>
<tr>
<td>Psychology 110</td>
<td>3</td>
</tr>
<tr>
<td>Sociology or Anthropology</td>
<td>3</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Sophomore</th>
<th>Hours Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Zoology 240</td>
<td>3</td>
</tr>
<tr>
<td>Zoology 230</td>
<td>5</td>
</tr>
<tr>
<td>Microbiology 210</td>
<td>3</td>
</tr>
<tr>
<td>Nutrition 300</td>
<td>3</td>
</tr>
<tr>
<td>Child and Family Studies 210</td>
<td>3</td>
</tr>
<tr>
<td>Sociology or Anthropology</td>
<td>3</td>
</tr>
<tr>
<td>History</td>
<td>6</td>
</tr>
<tr>
<td>Multicultural or Integrative Studies</td>
<td>3</td>
</tr>
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</table>

<table>
<thead>
<tr>
<th>Junior</th>
<th>Hours Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nursing 301, 302, 304, 311, 313</td>
<td>29</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Senior</th>
<th>Hours Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Multicultural or Integrative Studies</td>
<td>3</td>
</tr>
<tr>
<td>Nursing 401, 403, 405, 411</td>
<td>28</td>
</tr>
</tbody>
</table>

Total: 122 hours

Registered nurses must successfully complete all of the non-nursing courses listed above as well as the nursing courses listed below. Courses with an asterisk may be challenged.

<table>
<thead>
<tr>
<th>Hours Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>301 Pharmacology</td>
</tr>
<tr>
<td>304 Nursing Assessment and Health Promotion</td>
</tr>
<tr>
<td>305 Transition to Professional Nursing</td>
</tr>
<tr>
<td>312 Acute Care Nursing Theory</td>
</tr>
<tr>
<td>313 Nursing Research</td>
</tr>
<tr>
<td>315 Clinical Nursing Practicum</td>
</tr>
<tr>
<td>402 Family Health Nursing Theory</td>
</tr>
<tr>
<td>403 Community Health Nursing</td>
</tr>
<tr>
<td>405 Professional Nursing Seminar</td>
</tr>
<tr>
<td>409 Nursing Management and Strategies</td>
</tr>
<tr>
<td>412 Psychosocial Long Term Nursing Theory</td>
</tr>
<tr>
<td>Validation Examinations or Nursing Electives</td>
</tr>
</tbody>
</table>

Total: 55 hours

Registered nurses may earn up to eleven semester hours of upper-division nursing credits by means of validation examinations that are designed to measure prior learning. More information about the examinations may be obtained from the Student Affairs Office or from the faculty advisor for registered nurses. The following courses are open to all university students: 202, 214, 301, 317.

GRADUATE

General requirements for the Master of Science in Nursing degree are given in the Graduate Catalog.
College of Social Work

Eunice O. Shatz, Dean and Professor of Social Work, Ph.D. Brandeis University; The Florence Heller School for Advanced Studies in Social Welfare

Professors:
Catherine Feyer, Ph.D. University of Michigan; Gideon W. Fryer (Emeritus), Ed.D. Columbia University; Charles A. Glisson, Ph.D. Washington University; Ben P. Granger, Ph.D. Brandeis University; Jane Kronick, Ph.D. Yale University; Roger M. Noce, DSW Tulane University; James D. Orten, DSW University of Alabama; Ann R. Wachter (Emerita), MSSW Tennessee.

Associate Professors:
Tennessee; David A. Patterson, Ph.D. Alabama; Judith I. Fiene, Ph.D. University of California (Berkeley); William Nugent, Ph.D. Florida State University; Frank J. Spicuzza, MSSW University of Tennessee.

Assistant Professors:
Phyllis Betz, MSSW, University of Tennessee.

Field Coordinator:
Reginald Avery, Ph.D. Brandeis University; Thomas Cruthirds, DSW Tulane University; Jennette Jennings, Ph.D. University of Michigan; Elle Moses, Ph.D. University of California (Berkeley); William Nugent, Ph.D. Florida State University; Frank J. Spicuzza, MSSW University of Tennessee.

The College of Social Work offers a fully accredited two year graduate professional degree at the master's level (MSSW). The College also offers a graduate program leading to a Doctor of Philosophy in Social Work (Ph.D.). Information concerning graduate programs is given in the College of Social Work Bulletin and also in the Graduate Catalog.

Ou will prepare students for social work careers in such diverse areas as schools, youth programs, family service agencies, nursing homes, courts, mental health centers, and welfare agencies. The degree provides graduates a competitive advantage in many jobs, the possibility of up to one year's standing in some master's degree programs in social work, and the potential to be licensed in a number of states throughout the nation.

The social work curriculum builds on a strong liberal arts base. The humanities and the social and behavioral sciences are emphasized to help students understand human diversity and the transactions between people and their environment. The curriculum combines classroom experience and agency-based field placements. Courses provide a knowledge base in social work practice theory, human behavior, social welfare policy, and research. Educationally directed field placements, which consist of over 600 clock hours of supervised field instruction in agency settings throughout greater Knoxville, provide extensive and challenging opportunities for students to apply the lessons of the classroom to the problems of society. The program is accredited by the Council on Social Work Education.

The undergraduate social work program (BSSW) started in 1982 in the College of Liberal Arts. It was granted initial accreditation by the Council on Social Work Education in January 1984, and reaffirmation was given in 1987. The program was transferred to the College of Social Work in September 1985. The three programs, BSSW, MSSW and Ph.D., in the College represent the full continuum of social work education.

American social work is a helping profession which focuses on providing skilled intervention in the prevention and amelioration of individual and societal problems. It is a challenging and rewarding career involving the application of knowledge, skills, and professional values to assist individuals, families, groups, and communities in reaching their potentials. The primary objective of the undergraduate social work program is to prepare students for beginning social work practice. It is the purpose of the College to provide an education which fosters growth in both individual and career development.

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FACILITIES
The College of Social Work is housed in Henson Hall, located on the corner of Cumberland Avenue and Volunteer Boulevard on the UT, Knoxville campus in Knoxville. This building houses the administrative and faculty offices, along with classrooms for the BSSW, MSSW and Ph.D. programs. Video and computer resources are available to facilitate instruction.

GRADUATE PROGRAM
The College of Social Work offers a fully accredited two year graduate professional degree at the master's level (MSSW). The College also offers a graduate program leading to a Doctor of Philosophy in Social Work (Ph.D.). Information concerning graduate programs is given in the College of Social Work Bulletin and also in the Graduate Catalog.

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2. Cumulative grade point average of 2.0 or above.
3. Successful completion of a minimum of 60 semester hours. Initial progression must be completed prior to enrollment in any 300-level social work courses.
4. Favorable review of the student's application for entry into the junior level social work courses by the faculty admissions committee. The application requires an essay discussing the student's interest in and preliminary understanding of the profession.

FULL PROGRESSION
1. Successful completion of junior level social work courses with a grade of C or better.
2. Cumulative grade point average of 2.0 or above.
3. Successful completion of a minimum of 90 semester hours. Full progression must be completed prior to enrollment in 400-level social work courses.
4. Favorable approval by the BSW faculty prior to entry into senior level classes. This process will include a review of the student's performance in junior field practice.

Full progression is based on the recognition that social work has an intensive field component in which students demonstrate aptitude and ability to work with other people. While review is ongoing, full progression provides an additional opportunity to review the students' potential for entry-level practice.

CURRICULUM

<table>
<thead>
<tr>
<th>Freshman</th>
<th>Hours</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>English 101, 102</td>
<td>6</td>
<td></td>
</tr>
<tr>
<td>Foreign Language (Intermediate Level)</td>
<td>6</td>
<td></td>
</tr>
<tr>
<td>Mathematics 110</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>History 151-152 or 161-162</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Physiology or Biology Sequence with lab</td>
<td>8</td>
<td></td>
</tr>
<tr>
<td>Women's Studies 220</td>
<td>3</td>
<td></td>
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<tr>
<td>Sophomore</td>
<td>Hours</td>
<td>Credit</td>
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<tr>
<td>Zoology 210, 220</td>
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<td></td>
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<tr>
<td>Anthropology 130</td>
<td>3</td>
<td></td>
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<tr>
<td>Humanities (Literature Package)</td>
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<td></td>
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<tr>
<td>Humanities (Philosophy)</td>
<td>3</td>
<td></td>
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<tr>
<td>Psychology 220</td>
<td>3</td>
<td></td>
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<tr>
<td>Social Work 200, 250</td>
<td>6</td>
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<tr>
<td>Economics 201</td>
<td>4</td>
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</tr>
<tr>
<td>Junior</td>
<td>Hours</td>
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<tr>
<td>Social Work 312, 313, 314</td>
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<tr>
<td>United States Studies</td>
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<tr>
<td>Foreign Studies</td>
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<td></td>
</tr>
<tr>
<td>Political Science 101</td>
<td>3</td>
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<tr>
<td>Sociology 336 or Math 115</td>
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<tr>
<td>Social Work 310, 380</td>
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<td></td>
</tr>
<tr>
<td>Child and Family Studies 220</td>
<td>3</td>
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<tr>
<td>Senior</td>
<td>Hours</td>
<td>Credit</td>
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<td>Social Work 412, 416</td>
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<tr>
<td>Social Work 480, 481</td>
<td>12</td>
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<tr>
<td>Social Work 460</td>
<td>2</td>
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<tr>
<td>Anthropology 312</td>
<td>3</td>
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<tr>
<td>Electives</td>
<td>8</td>
<td></td>
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<tr>
<td>Total</td>
<td>124</td>
<td></td>
</tr>
</tbody>
</table>

Courses 423 - Communication Processes for the Hearing Impaired (3), and 525 - Manual Communication (3) will fulfill the foreign language requirement.

The following sequences may be selected:
Astronomy 161-162; Botany 110-120; Chemistry 120-130; Geography 131-132; Geology 101-102; Physics 121-122.

The following literature packages may be selected:
Classics 253-254; English 201-202; English 221-222; English 231-232 or 233; Germanic and Slavic Languages 221-222; Religious Studies 312-313; French 291-292; Spanish 291-292.

One course selected from Classics 221; Classics 222; Philosophy 220; Philosophy 111; Philosophy 120; Philosophy 121; Philosophy 240; Philosophy 344; Philosophy 360; Philosophy 382.

One course selected from: Anthropology 310; Anthropology 315; Geography 363; History 378; History 380; History 440; Philosophy 390; Political Science 311; Political Science 374; Religious Studies 392; Sociology 343; Sociology 340; Speech 466.

One course selected from: Anthropology 314; Classics 381; Classics 382; English 302; Geography 372; Geography 373; Geography 375; Geography 376; Germanic and Slavic Languages 353; History 320; History 374; Philosophy 326; Political Science 350; Political Science 361; Political Science 469; Religious Studies 332; French 432; Spanish 431; Spanish 471; Sociology 448.
University Honors

Bruce Wheeler, Director
Dorothy Hendricks, Associate Director

University Honors programs have been carefully designed to give academically outstanding students a special undergraduate honors experience comprising special courses, seminars, mentoring programs, senior research projects and other features. Students are invited to become University Honors students prior to enrolling at the University, and transfer students and already-enrolled students are ineligible. Prospective University Honors students are selected on the bases of previous academic performance, demonstration of an eagerness to be active learners and leaders, and extracurricular activities. The University Honors Office administers three separate programs: the Tennessee Scholars Program, the Whittle Scholars Program, and the Chancellor's Scholars Program.

The Tennessee Scholars and Chancellor's Scholars programs are administered by the University Honors Committee which includes faculty representatives from each of the ten baccalaureate colleges and schools and students elected by the Tennessee Scholars and Chancellor's Scholars. The Whittle Scholars Program is administered by the Whittle Scholars Committee which includes faculty appointed by the Chancellor, representatives of the University Administration, alumni, and representatives of Whittle Communications.

TENNESSEE SCHOLARS PROGRAM

Each year, twenty-five outstanding high school students will be selected by the University Honors Committee for a four-year program of honors work. These students may have any major in any college offering the Bachelor's degree. In addition to required work in their respective colleges, Tennessee Scholars are required to complete a minimum of four lower division honors courses; complete a one credit hour seminar each term in residence; attend monthly meetings of the Whittle Scholars; and complete a senior research project of merit and originality. Failure to meet the above requirements can result in removal from the program and loss of scholarship assistance.

Students are selected on the bases of ACT/SAT scores, high school GPA and the difficulty of the high school course of study, academic references, and a personal statement. Students who are selected as Tennessee Scholars are awarded substantial four-year scholarships. Students enrolled in five-year programs will receive a fifth year of financial assistance.

WHITTLE SCHOLARS PROGRAM

The Whittle Scholars Program is made possible by a substantial endowment given to the University by Chris Whittle, Chairman of Whittle Communications and a 1969 UT, Knoxville alumnus.

Each year, twenty outstanding high school students will be invited to become Whittle Scholars. These students may have any major in any college offering the Bachelor's degree. In addition to required work in their respective colleges, Whittle Scholars are required to complete a one credit hour seminar each term of their first year (one on contemporary issues and one on aspects of leadership); complete at least one University Honors course during their second year; complete a one-year seminar preparatory to international travel/study/work; complete a one-year international experience; develop positive relationships with a faculty mentor and a non-faculty career mentor; have an extensive conference with a member of the University Honors staff each term in residence; and complete a senior honors research project of merit and originality. Failure to meet the above requirements can result in removal from the program.

Retention in Tennessee Scholars Program, Chancellor's Scholars Program, and Whittle Scholars Program

Tennessee Scholars are selected on the bases of past academic performance and their potential for academic excellence. As Tennessee Scholars, they are expected to adhere to the written policies and requirements of the Tennessee Scholars Program and are encouraged to enroll in courses that will stimulate and challenge them as well as broaden their horizons. As a result, the University Honors Committee will not be concerned if grades in occasional courses fall below superior range. However, all Tennessee Scholars are expected to maintain a cumulative grade point average of 3.25.

Whittle Scholars are selected on the bases of leadership experience and skills, academic performance and promise, and extracurricular activities. As Whittle Scholars, they are expected to adhere to the written policies and requirements of the Whittle Scholars Program.
and are encouraged to enroll in courses that will stimulate and challenge them as well as broaden their horizons. All Whittle Scholars are reviewed annually by the Whittle Scholars Committee as to their academic performance and progress, the planning and execution of their international experiences and their senior projects. Whittle Scholars are expected to maintain a cumulative grade point average of 3.25.

A student in the Tennessee Scholars Program or Whittle Scholars Program whose cumulative GPA falls below 3.25 will be allowed to continue in the Program and receive its benefits so long as he or she earns a 3.25 GPA or better every semester, thus eventually raising the cumulative GPA to the required 3.25. If, while the cumulative GPA is less 3.25, a student fails to earn a 3.25 or better in any semester, he or she will be removed from the program and lose all its benefits, unless the student can demonstrate extenuating circumstances to the University Honors Committee or the Whittle Scholars Committee.

Senior Project Deadlines in Tennessee Scholars Program, Chancellor’s Scholars Program, and Whittle Scholars Program

The following is a list of mandatory deadlines for the senior research project in all University Honors programs:

1. No later than the end of the second year in residence, a student must have chosen a UT, Knoxville faculty member to serve as mentor for the senior research project, and that faculty member must have agreed in writing to serve as the student’s mentor.

2. No later than the end of the third year in residence, a student, together with the faculty mentor, will choose two other faculty members who, together with the faculty mentor, will serve as the student’s research project committee. The purpose of the committee is to aid students in formulating, designing and executing their projects and to evaluate the projects when completed. Similarly, by the end of the third year in residence, a student must submit a written abstract or proposal for the senior research project to his/her faculty committee for suggestions and approval.

3. No later than the end of the first semester of a student’s senior year, a first draft of the senior research project must be submitted to the faculty mentor, and the faculty mentor must report that fact to the University Honors Director.

4. Within four weeks of the end of a student’s final semester, he or she will be expected to present the completed project to the student’s committee, the student’s peers, and invited guests. Upon the conclusion of the presentation, the student’s faculty mentor will submit a letter to the Director of the University Honors Program certifying that the research project has been completed and has been accepted by the committee. One copy of the research project must be filed in the University Honors Office and additional copies should be given to the student’s committee.

Failure to meet these guidelines will result in the delay of a student’s graduation.

UNIVERSITY HONORS COURSES

Seminars and colloquia focused on various topics, issues, and problems, and limited in size to 25 students. These are taught by faculty from all ten undergraduate colleges and schools, and may be repeated. University Honors courses are open to all undergraduate students on the basis of high school GPA, ACT/SAT scores, UT, Knoxville GPA of 3.25 or better, or by strong professorial recommendation.

April 10 for students graduating in the Spring semester, and November 15 for students graduating in the fall semester. Students graduating in August (at the end of summer school) are urged to complete their projects by the April 10 deadline, although, in special cases and with the written consent of the faculty mentor, exceptions to this rule may be made.

There may be types of projects that do not lend themselves to a formal (public) defense. Hence the decision whether or not to have a public defense should be decided by the research committee and the Director of the University Honors Program.
University Libraries

Paula T. Kaufman, Dean
Aubrey H. Mitchell, Associate Dean for Public Services
Diane E. Perushé, Associate Dean for Collection Development and Management

Professors:

Associate Professors:

Instructor:
Lahmon, JoAnn, M.S.L.S., Tennessee.

The University of Tennessee, Knoxville Libraries own approximately 1.7 million volumes, more than 3.5 million manuscripts, 1.8 million microforms, 28,000 audio and video recordings, plus United States and United Nations documents. The UT, Knoxville Libraries currently subscribe to more than 14,000 periodicals and other serial titles. The Libraries' membership in the Association of Research Libraries reflects the University's emphasis on graduate instruction and research and the support of large, comprehensive collections of library materials on a permanent basis.

The UT, Knoxville Libraries consists of the main library (the John C. Hodges Library), five branches on the Knoxville campus (the Agriculture-Veterinary Medicine Library, the Map Library, the Music Library, Special Collections, and the University Archives), and the Social Work Library in Nashville.

The John C. Hodges Main Library (1015 Volunteer Blvd.) is a 350,000 square-foot facility housing collections in all subject areas. The John C. Hodges Library has comfortable study space for 3,500 people, 308 graduate student carrels, and 196 faculty studies. The Hodges Library's research holdings are augmented by Reference & Information Services provides research assistance and access to commercially available databases. In the reference room, users may also search a number of CD-ROM databases at no charge. Interlibrary Loan borrows monographs and obtains copies of other materials from libraries around the world. Library holdings are accessible via a sophisticated online catalog which can be searched in the Hodges Library, the branch libraries, and from home and office computers.

The services and facilities of the University Libraries are accessible to persons with disabilities. Adaptive equipment such as a Kurzweil Personal Reader and TDD are available at the Hodges Library.

The Agriculture-Veterinary Medicine Library (Room A-113, Veterinary Teaching Hospital) has a strong collection in agriculture; veterinary, comparative and human medicine; and related biological sciences. It has a wide-ranging audiovisual collection and an extensive reference collection.

The Map Library (Room 15, basement of the Hoskins Library, Cumberland Avenue & 15th Street) contains a worldwide collection of over 300,000 maps covering all subjects. Maps are received from the U.S Geological Survey, Defense Mapping Agency, and the National Ocean Survey. Maps, atlases, globes, and books relating to cartography may be borrowed for reference, research, and teaching.

The Music Library (301 Music Building) has a comprehensive collection of music and music literature, including books, scores, audio and video recordings, current periodicals, and microfilm. All materials in the Library of Congress "M" classification are located here.

The Social Collections Library (2nd floor, west wing, of the Hoskins Library) is a repository of regional and local materials, Tennesseana, and other specialties, including legislative papers and mementoes of many Tennessee political figures. Special Collections materials are of particular interest to scholars in the fields of history, political science, social sciences, biological sciences, and the arts.

The University Archives (Room 2, Hoskins Library) contains official records of the University; items published officially and unofficially by its units, departments, and agencies; and other materials that document University of Tennessee life.

The Social Work Library (1720 West End Avenue, Nashville) serves College of Social Work students in field practice across the state. The library has a working collection of materials in social work and related disciplines.

The Law Library on the Knoxville campus and the libraries located on the campuses in Chattanooga, Martin, Memphis, and Tullahoma are individually administered. Each library at The University of Tennessee is accessible to all students and faculty in the system.
University Studies

Alvin G. Burstein, Chair

The University Studies Program has three general objectives: (1) to foster interdisciplinary teaching and scholarship, especially across college boundaries; (2) to promote active, integrative, and personal learning; and (3) to nurture the personal and intellectual development of faculty and students.

In pursuit of these objectives, University Studies sponsors two main types of activities: FACULTY COLLOQUIES, which are on-going, structured, interdisciplinary conversations on a topic or nexus of topics; and INTERDISCIPLINARY COURSES, often team-taught, many stemming from the colloquy discussions.

Faculty Colloquies explore important contemporary issues which are sufficiently fundamental to involve the attention of faculty and students from all colleges. Current colloquies are: Technology, Society and the Common Good; Aging and Society; Land and People (Tennessee Appalachian Forum); Interdisciplinary Rhetoric Group; Psychanalysis and the Humanities; Critical Theory Group; Forum on International Development; and Appalachian Studies.

For further information, contact:
Dr. Alvin G. Burstein, Chair
312C Austin Peay
PHONE: 974-3348.
Reserve Officers Training

DEPARTMENT OF MILITARY SCIENCE

ARMY ROTC

LTC Earl Harrison, Professor of Military Science

The military program at The University of Tennessee predates that of any other state university in the country, having been introduced in 1844. In that year, Professor Albert Miller Lea, a West Point graduate, organized an infantry company. With the outbreak of the Mexican War, the entire company, as well as thousands of other Tennesseans, volunteered for service in the war. Thus, Tennessee became known as the "Volunteer State".

When The University of Tennessee reopened after the Civil War, a system of military discipline was adopted. A Code of Military Regulations was drawn up and a copy was provided each student when he matriculated. The whole institution was put under regular West Point discipline. The student body was organized into a battalion of cadets, which consisted of four companies fully officered, armed and equipped under the command of the commandant and his staff of cadet officers. The University of Tennessee remained as a military Garrison for a period of six years, until 1877. Military Science continued to be taught, since the University of Tennessee was a Land Grant Institution and instruction in Military Science was required by the 1862 Act of Congress.

The National Defense Act of 1916 changed the old military organization into a ROTC unit. For the first time, the Federal Government began to pay a part of the uniform cost for basic course students; uniforms and other equipment were provided by the Government for Juniors and Seniors, and a monthly subsistence allowance was given to advanced course students.

From 1928-1930, Major (later Brigadier General) Robert R. Neyland was the Professor of Military Science and football coach at The University of Tennessee. Today, Neyland Stadium stands in tribute to his great accomplishments.

The purpose of Army ROTC is to provide professional education which will prepare students for appointment as commissioned officers in the Regular Army or the United States Army Reserve components.

Objectives of the program are to provide students with an understanding of the fundamental concepts and principles of military art and science; to develop a basic understanding of the associated professional knowledge, a strong sense of personal integrity, honor, and individual responsibility, and an appreciation of the requirements for national security; and to establish a sound basis for the students' future professional development.

ROTC draws young men and women for training from all geographical, economic, and social strata of our society as well as from the many educational disciplines required for the modern Army. The program ensures that men and women educated in a liberal and broad spectrum of American institutions of higher learning are commissioned annually into the officer corps.

Satisfactory/No Credit Courses

Since Military Science is not a major course of study that leads to a degree in a specific academic discipline, the number of satisfactory/no credit courses is decided by the college of the student's academic major. All ROTC courses are offered on a letter grade basis only.

Course Load

No more than one Military Science course may be taken during any given semester, unless an exception to policy is approved by the Professor of Military Science on a case-by-case basis. Students enrolled in the advanced program (upper division Military Science 300 and 400 level courses) and ROTC scholarship cadets are required to be full-time students, taking at least 12 hours each semester.

Course Substitution

On the basis of previous honorable active military service in any branch of the Armed Services, or participation in a Junior ROTC Program at a Secondary School, a student may request exemption from portions of the Basic Course (Military Science 100 and 200 level courses). Placement credit may also be authorized for completion of basic training and advanced individual training. Exemption allowed will be determined by the Professor of Military Science. Military Science courses taken at other colleges or universities are transferable as approved by the Professor of Military Science.

Requirements for Enrollment and Continuance

The general requirements for enrollment and continuance in the Army ROTC program are:

1. Basic Military Studies
   a. Be a citizen of the United States.
   b. Be physically qualified.
   c. Freshman and Sophomore standing. Student with higher standing requires consent of instructor.

2. Advanced Military Studies Cadets applying for enrollment in the Advanced ROTC program who seek a Commission must:
   a. Have successfully completed Military Science 110, 120, 210, 220 or have accomplished one of the following: Prior Military Service, ROTC Basic Military Studies - Practicum (MS 200), 3-Year High School ROTC Basic Course.
   b. Have two years remaining at the University (either undergraduate, graduate or in pursuit of additional course work).
   c. Have completed a minimum of 55 semester hours.
   d. Be under 30 years old at time of commissioning (waiverable).
   e. Be enrolled as a full-time student, either at The University of Tennessee or at a nearby institution in a cooperative program.
   f. Meet military screening and physical requirements.
g. Maintain a 2.0 G.P.A.

h. Maintain B average in Military Science Courses as a scholarship student.

NOTE: Regularly enrolled students who meet the academic prerequisites may take individual courses as electives with the permission of the department head and academic advisor.

REQUIREMENTS FOR ALL MILITARY SCIENCE COMMISSIONEES

The following Military Science (MS) Advanced Course Curriculum must be successfully completed:

Military Science 310 (4) - Advanced Military Studies I
Military Science 320 (4) - Advanced Military Studies II
Military Science 400 (4) - Advanced Camp-Practicum
Military Science 410 (4) - Command and Staff Functions
Military Science 420 (4) - Military Ethics and Law

In addition to a baccalaureate degree, there are required and recommended courses in designated fields of study that students must complete prior to commissioning. Students meet these prerequisites by successful completion of required and elective courses taken from the university curriculum in the required areas of concentration.

Courses in the following designated fields of study are required of students seeking a commission in the United States Army.

a. One course in written communications.
b. One course in human behavior.
c. One course in military history.
d. One course in a foreign language (scholarship students only).
e. One course in Math Reasoning.
f. One course in Computer Literacy.

Courses in management and national security studies are strongly recommended but are not required.

SPECIAL PROGRAMS

Pay and Entitlements All students enrolled in the Army ROTC program are furnished texts by the Army through the Military Property Office. Students enrolled in the ROTC Advanced Course receive uniforms and equipment plus an allowance of $100 per month during the academic year. While attending the ROTC summer studies each cadet receives approximately $850 for Advanced Summer Studies, $600 for Basic Summer Studies, plus meals and clothing are provided.

Army ROTC Scholarship Program The Army ROTC scholarship program offers financial assistance to outstanding young men and women in the Army ROTC program who are interested in the Army as a career. Each scholarship provides for free tuition, textbooks subsidy, and laboratory fees in addition to a subsistence allowance of $100 per month for the period that the scholarship is in effect. Scholarships may be awarded for either three or four years. High school seniors should contact their guidance counselors early in August or September of their senior year to apply for the four-year scholarship. Three-year scholarship applicants should contact the Professor of Military Science for further information. Certain other privately financed scholarships and grants are available to ROTC cadets.

Simultaneous Membership Program The "SMP" option combines the Army ROTC living allowance ($100/month) with membership in the Army Reserve or Army National Guard and allows the student to receive pay from both programs. ROTC cadets serve as "officer-trainees" in direct leadership/management positions. SMP cadets participate with the reserve forces one weekend per month and two weeks each summer.

Branch Selection The curriculum of the Army ROTC Program is designed to qualify the cadet for appointment as an officer. Selection for assignment to the various branches of the Army is based upon: the personal interests of the cadet; the major course of study; academic accomplishments; leadership potential; and the needs of the Service. Under this system a cadet may be commissioned in any branch for which he or she is qualified and in which a need for officers exists. After graduation and commissioning, the officer will attend a service school for further specialized military training which will qualify him or her for the branch to which he or she is assigned.

Extra Curricular Activities Numerous military-related activities are available to cadets throughout the school year. These include the Tennessee Rangers, Scabbard and Blade, UT, Color Guard, and Sponsor Corps. These organizations provide both student to student contact and a valuable opportunity to acquire military skills. Additionally, each term, a number of Field Training Exercises are conducted allowing such military skills as Small Unit Tactics.

MILITARY SCIENCE CURRICULUM

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<tr>
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<tr>
<td>Military Science 210, 220</td>
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<td>Military Science 310, 320</td>
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Total: 30 hours

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<td>Junior</td>
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<td>Military Science 310, 320</td>
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<tr>
<td>Summer</td>
<td></td>
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<tr>
<td>Military Science 400</td>
<td>4</td>
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<td>Senior</td>
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Total: 24 hours

Advanced Placement

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<td>Military Science 310, 320</td>
</tr>
<tr>
<td>Summer</td>
</tr>
<tr>
<td>Military Science 400</td>
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</tbody>
</table>

Variations to these sequences of study may be approved by the Professor of Military Science on a case-by-case basis. Total Military Science hours offered is 34. Maximum total Military Science hours applicable for commission is 30. Minimum total Military Science hours applicable for commission is 20. Lower division credit hours granted by the University for military service are dependent upon time spent in service and service schools attended.

PROGRESSION REQUIREMENTS

1. Minimum semester hours/GPA for entrance into Basic Military Studies - Practicum (Military Science 200): 30 semester hours/2.00 GPA.

2. Minimum overall GPA for entrance into the advance course (Military Science 310, 320, 400, 410, 420): 2.00.

3. Minimum GPA in Military Science Courses: 2.00.

4. Minimum overall GPA for commissioning: 2.00.

5. Semester counseling sessions with military advisor required for Advance Course and scholarship students only.

6. Officer Selection Battery test.

DEPARTMENT OF AIR FORCE

AIR FORCE ROTC PROGRAM

Professor of Air Force Aerospace Studies: Colonel Tom Trotta (Head), M.A. Webster University.

Assistant Professors: Captain Louise W. Ewing, M.A., Webster University; Captain Kevin Kilpatrick, M.S., University of Dayton.

PURPOSE

The Air Force Reserve Officers Training Corps (AFROTC) is an educational program designed to provide the college student an opportunity to earn an Air Force commission as a Second Lieutenant while completing the University requirements for a bachelor's degree. The program provides education that will develop the skills and attitudes vital to the professional Air Force officer. Upon successful completion of the program and graduation from the University, students are commissioned as Second Lieutenants and enter active duty.

THE PROGRAMS

The Four-Year Program: Students entering the Four-Year Program may register for the program at the same time and in the same manner as they enroll in their other college courses and there is NO MILITARY OBLIGATION. During their freshman and sophomore years, students enroll in the General Military Courses (GMC). They then may compete for entry into the Professional Officer Course (POC) which is normally taken during...
the last two years of college. Selection into the POC is highly competitive and is based on being medically qualified; scores achieved on the Scholastic Aptitude Test (SAT) or American College Test (ACT); scores achieved on the Air Force Officer Qualifying Test (AFOQT); successful completion of a four-week field training course at an Air Force base; and the recommendation of the Professor of Aerospace Studies.

The Two-Year Program: The Two-Year Program consists of the Professional Officer Course (POC), the last two years of the Four-Year Program. It is designed to provide greater flexibility to meet the needs of students desiring Air Force opportunities. The basic requirement is that applicants have two academic years remaining at either the undergraduate or graduate levels, or a combination of both. After being nominated by the Professor of Aerospace Studies, applicants seeking enrollment in the Two-Year Program are evaluated using the same criteria used for the four-year program except the length of the field training course is six weeks. Additionally, every POC applicant must agree to take and successfully complete a course in mathematical reasoning or its equivalent before graduation and commissioning.

Since the processing procedure must be completed several months in advance of intended enrollment, interested students must apply early in the academic year preceding the fall term in which they intend to enter the program. Application should be made in person to the Department of Aerospace Studies.

WOMEN IN AFROTC
AFROTC at The University of Tennessee has been coeducational since 1970. Women complete the same courses as men and have the same opportunities. Upon successful completion of the AFROTC program and degree requirements, women are commissioned in the Air Force as Second Lieutenants. Pay and job opportunities are equal for women and men. Virtually all career fields in the Air Force are open to women, including pilot and navigator positions.

SCHOLARSHIP PROGRAM
Air Force ROTC Scholarships are available to qualified applicants in both the Four- and Two-Year Programs. Each scholarship provides full tuition, laboratory and incidental fees, and book fee. In addition, scholarship cadets receive a non-taxable $100 stipend each month during the school year while on scholarship status.

High School Students: Competitive four-year scholarships are available to high school male and female students who enroll in certain scientific and engineering career fields. Some scholarships are also available to male and female students who enroll in certain non-technical majors. Four-year scholarship applications are contained in the Air Force ROTC Four-Year College Scholarship Program Application Booklet. Booklets may be obtained directly from Air Force ROTC Public Affairs, Maxwell, AFB, AL 36112.

College students: Other scholarship opportunities exist for students already in college. Three and one-half, three-, and two-year scholarships are available on a competitive basis and the student must have at least four, three, or two undergraduate or graduate years of study remaining in order to compete. Applications for these scholarships should be made directly to the Department of Aerospace Studies.

PAY AND ENTITLEMENTS
All cadets enrolled in AFROTC are furnished texts and uniforms. Enrollees are required to deposit $75 as security to the University against loss or damage to the uniforms. The deposit, minus a nominal fee to cover cost of shoes, is returned to the student upon early withdrawal or disenrollment from the program. Professional Officer Course cadets receive a subsistence allowance of $100 per month during the academic year. In addition they are paid mileage to and from field training, plus pay commensurate with active duty rates while at field training.

ACTIVE DUTY COMMITMENTS
Commissioned graduates going into non-flying duties will be required to serve four years of active duty. Those graduates going into pilot assignments will be required to serve ten years active duty after completion of pilot training. Those graduates going into navigator assignments will be required to serve six years active duty after completion of navigator training.
Advanced Studies

THE COLLEGE OF LAW

Marilyn Yarbrough, Dean
Mary Jo Hoover, Associate Dean
Julia P. Hardin, Associate Dean
Richard S. Wirtz, Associate Dean

The College of Law has, since 1890, continuously sought to provide high quality legal education in a University community. The college offers a professional curriculum leading to the degree of Doctor of Jurisprudence. Two dual degree programs are available in conjunction with the College of Law: the J.D.-M.B.A program with the College of Business Administration and J.D.-M.P.A. program with the Department of Political Science.

Information regarding admission, financial aid, academic policies, extracurricular activities, and student services is available in the "College of Law Bulletin". A copy may be obtained from the Admissions Office, The University of Tennessee, College of Law, 1505 W. Cumberland Avenue, Knoxville, Tennessee 37996. Completed application should be received before February 1 of the year of expected admission.

THE GRADUATE SCHOOL

C.W. Minkel, Associate Vice Chancellor and Dean of The Graduate School
Wayne T. Davis, Associate Dean of The Graduate School
Linda R. Painter, Associate Dean of The Graduate School
Diana Lopez, Director, Graduate Admissions and Records
S. Kay Reed, Graduate Recruitment Coordinator
Ann L. Lacava, Thesis/Dissertation Coordinator
Rose Ann Trantham, Assistant Director, Graduate Admissions and Records
Irene Kaplon, Assistant Director, Graduate Admissions and Records

The University of Tennessee is the official land-grant institution for the State of Tennessee with its main campus in Knoxville. It is a comprehensive research-oriented institution offering a wide range of graduate programs leading to the Master's and doctoral degrees. The University offers both on-campus and online programs.

The Graduate School brings together faculty and graduate students as a community of scholars with a common interest in creative work and advanced study. Graduate programs are available to students desiring full-time study toward the Master's and doctoral degrees or professional certification, those interested in continuing education for updating and broadening knowledge, and those pursuing postdoctoral research. Traditionally, universities have provided graduate programs primarily for full-time, degree-oriented students. Serving the needs of students engaged full-time in intensive study and pursuit of a degree continues to be a major emphasis of UT Knoxville's graduate effort. At the same time, the University employs a variety of modes, traditional and non-traditional, in offering quality programs designed to serve students.

Complete information concerning graduate study at The University of Tennessee, Knoxville is available in the Graduate Catalog published annually. For a copy, write or visit the Office of Graduate Admissions and Records, 218 Student Services Building, The University of Tennessee, Knoxville 37996-0220 or call (615) 974-3251.

GRADUATE SCHOOL OF BIOMEDICAL SCIENCES

Raymond A. Popp, Director

FULL-TIME FACULTY

Professor:
D.E. Olins, Ph.D. Rockefeller.

Research Professor:

Research Associate Professor:
E.C. Uberbacher, Ph.D. Pennsylvania.

Research Assistant Professors:
Robert S. Foote, Ph.D. Duke; Lan-Yang Ch'ang, Ph.D. Vanderbilt.

The Graduate School of Biomedical Sciences offers programs leading to the Master of Science and Doctor of Philosophy degrees. The School publishes supplementary inform-
tion in addition to the regular Graduate Catalog. All inquiries concerning admission should be addressed to: Director, The University of Tennessee-Oak Ridge Graduate School of Biomedical Sciences, Biology Division, ORNL, P.O. Box Y, Oak Ridge, Tennessee 37831. Consult the Graduate Catalog for listing of graduate level courses.

COMPARATIVE AND EXPERIMENTAL MEDICINE JOINT GRADUATE PROGRAM

L.N.D. Potgieter, Director

Coordinating Committee: J.E. Fuhr; J.E. Lawler; C. Lozzio; L.N.D. Potgieter; M. H. Sims.

The Comparative and Experimental Medicine degree program (M.S. and Ph.D.) is jointly administered by the College of Veterinary Medicine, the College of Medicine/Knoxville Unit, and the University of Tennessee, Knoxville Graduate School. The graduate program is intended to prepare students for teaching and/or research careers in the health sciences, emphasizing the comparative approach to study of pathology, immunopathology, hematology, infectious diseases; aberrant metabolism, oncology, and genetic disorders. For complete information, refer to the Graduate Catalog.

ENERGY, ENVIRONMENT, AND RESOURCES CENTER

E. William Colglazier, Director

The Energy, Environment, and Resources Center, 329 South Stadium Hall, was created in 1973 to encourage interdisciplinary research and graduate studies and research opportunities in energy, environmental, resource, and technology policy issues. The Center involves faculty and students in research and public service projects, manages research and development projects that involve several disciplines, and assists government and industry in specific problems related to energy, environmental, resource, and technology policy issues. The Center has a close working relationship with Oak Ridge National Laboratory and the Tennessee Valley Authority. Sponsors include federal and state agencies, industries, and foundations.

GRADUATE SCHOOL OF LIBRARY AND INFORMATION SCIENCE

Glenn E. Estes, Director


Assistant Professors: R.A. Palmquist, M.A. Iowa; R. Pollard, Ph.D. Brunel (UK).

The Graduate School of Library and Information Science provides a program leading to the preparation of librarians and information scientists for work in all types of libraries and information centers.

THE UNDERGRADUATE PROGRAM

The undergraduate library education program leads to a minor in the College of Education or the College of Liberal Arts. Students in other colleges may elect a minor in library and information science with the approval of their faculty advisors. The undergraduate minor is planned for the following groups of people: (1) students preparing for positions as school librarians in elementary and secondary schools; (2) teachers who wish to become better acquainted with books and other instructional materials; (3) school administrators who wish to explore the place of the library in the instructional program; (4) prospective candidates for the graduate program in library education; (5) persons seeking a position at the level of Library Associate as described in the manpower policy of the American Library Association.

The minimum requirements for a full-time position as school librarian in the state of Tennessee (both elementary and secondary) can be met through fulfilling the requirements for teacher certification and completion of the following library courses: 330, 340, 475, 510, 530, 551, 564, and 574.

The goal of the program is to prepare graduates to function effectively in libraries and information centers. For further information, write for a Graduate Catalog.

LIFE SCIENCES

Coordinating Council: H.I. Adler (Chair); Physiology: G. Vaughan; Biotechnology: D.K. Dougal; Cellular, Molecular and Development Biology: J.M. Becker; Environmental Toxicology: W.R. Potgieter; Pathology: G.B. Burghardt; Plant Pathology and Genetics: B.V. Conger; Veterinary Medicine: J.M. Bright.

The programs leading to the M.S. and Ph.D. degrees in Life Sciences are interdepartmental and intercollegiate programs which augment the programs of individual departments.

The graduate program in Life Sciences supports studies and research in the following concentrations: physiology; biotechnology (M.S. only); cellular, molecular and development biology; ethology; environmental toxicology; and plant physiology and genetics. Students interested in any of these areas should contact either the chair of Life Sciences or the Director of the area of interest. For complete information, refer to the Graduate Catalog.

SPACE INSTITUTE

Wesley L. Harris, Vice President
K.C. Reddy, Dean for Academic Affairs

The Space Institute is a graduate education and research institute established in 1964 on a 365 acre lakeshore campus in Middle Tennessee. UTISI has evolved into an internationally recognized institution for graduate study and research in engineering, physics, mathematics, and computer science. The accredited academic programs and educational policies of the Space Institute have their origins in appropriate departments of the University of Tennessee, Knoxville. The more than 45 faculty members of the Institute carry out these accredited academic programs through classroom teaching, informal seminars, active research, and directing the research of their students in an environment of creative work and advanced study. Programs are available to students devoting full-time effort toward M.S. and Ph.D. degrees, those interested in continuing education for updating and broadening knowledge, and those who wish to pursue post-doctoral research.

Graduate degree programs are available with majors in Aerospace Engineering, Aviation Systems, Chemical Engineering, Computer Science, Electrical Engineering, Engineering Science, Industrial Engineering (engineering management concentration), Mathematics, Mechanical Engineering, and Physics. In addition to the fundamental studies characteristic of each discipline, research opportunities are available in many areas including aerodynamics, atmospheric science, fluid mechanics, advanced space propulsion, knowledge engineering, energy conversion processes, thermal sciences, coal combustion, magneto-hydrodynamics, plasma physics, space systems, remote sensing, propulsion, computational fluid dynamics, and other aspects of atmospheric and space flight.

The Institute has an established Center of Excellence in Laser Applications and offers graduate studies and research opportunities in laser diagnostics, laser materials interactions, plasma second processes, and coherent and nonlinear optics.

The Institute was established in part to increase the research and engineering resources of Tennessee through education and practice in relevant scientific and technical areas and in part to interface University faculty and student research with the Air Force Arnold Engineering Development Center. The faculty, research activities, and facilities of the Institute and those available at Arnold Center through appropriate contractual arrangements provide students an unusual opportunity for significant research in these areas. Students who enroll at UTISI are admitted to The Graduate School, The University of Tennessee, Knoxville. Graduate Research Assistantships are available for qualified students. Further information may be obtained from the Dean, The University of Tennessee Space Institute, Tullahoma, Tennessee 37388.
TRANSPORTATION CENTER

Stephen H. Richards, Director

The Transportation Center was created in 1970 to foster and facilitate interdisciplinary research and public service in the field of transportation at The University of Tennessee. It began operating full-time in 1972 and since then has contributed greatly to the overall research program of The University.

The Center, 357 South Stadium Hall, is a University-level organization administratively positioned within the Office of The Associate Vice Chancellor for Research at UT, Knoxville. The Center's staff is presently organized into eight research divisions: Energy and Environment; Systems Analysis and Data Management; Policy and Services; Rail and Water; Safety and Operations; Structures and Construction; Highway Engineering; and Training and Technology Transfer.

The Center has three goals. The first is to conduct a program of research in transportation that is recognized for its excellence, comprehensiveness, innovation, productivity, and national leadership. The second is to develop and sustain the technical expertise for high quality transportation research by the faculty and students within the various departments and colleges of UT. The third goal is to serve the transportation research, service, and training needs of state and local government, business, and industry in Tennessee, the southeast region, and the nation.

WATER RESOURCES RESEARCH CENTER

Bruce A. Tschantz, Acting Director

The Water Resources Research Center, 422 South Stadium Hall, is a federally designated institute for the conduct of water research for the state. The purposes of the Center are: (1) to assist and support all the academic institutions of the state, public and private, in pursuing water resources research which addresses a wide range of problems of interest to the state, region, and nation; (2) to provide information, dissemination and technology transfer services to state and local government bodies, academic institutions, professional groups, environmental organizations, and others, including the general public, who have an interest in water resources matters; and (3) to promote education in fields relating to water resources and to encourage the entry of promising students into careers in these fields.
## Majors and Degree Programs

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<tr>
<td>Agricultural and Extension Education</td>
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<td>Wildlife and Fisheries Science</td>
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<tr>
<td>Safety Education and Service</td>
<td>M.S., Ed.S.</td>
</tr>
<tr>
<td>School Health Education</td>
<td>M.S.</td>
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<tr>
<td>Special Education</td>
<td>M.S.</td>
</tr>
<tr>
<td>Technological &amp; Adult Education</td>
<td>M.S., Ed.D.</td>
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<tr>
<td>Vocational-Technical Education</td>
<td>Ed.S.</td>
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<thead>
<tr>
<th>College of Engineering</th>
<th>DEGREE</th>
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<tbody>
<tr>
<td>Aerospace Engineering</td>
<td>M.S., Ph.D.</td>
</tr>
<tr>
<td>Chemical Engineering</td>
<td>M.S., Ph.D.</td>
</tr>
<tr>
<td>Civil Engineering</td>
<td>M.E., M.S., Ph.D.</td>
</tr>
<tr>
<td>Electrical Engineering</td>
<td>M.E., M.S., Ph.D.</td>
</tr>
<tr>
<td>Engineering Science</td>
<td>M.E., Ph.D.</td>
</tr>
<tr>
<td>Environmental Engineering</td>
<td>M.S.</td>
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<tr>
<td>Industrial Engineering</td>
<td>M.S.</td>
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<tr>
<td>Mechanical Engineering</td>
<td>M.S., Ph.D.</td>
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<tr>
<td>Metallurgical Engineering</td>
<td>M.S., Ph.D.</td>
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<tr>
<td>Nuclear Engineering</td>
<td>M.S., Ph.D.</td>
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<tr>
<td>Polymer Engineering</td>
<td>M.S., Ph.D.</td>
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<tr>
<th>College of Human Ecology</th>
<th>DEGREE</th>
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<tbody>
<tr>
<td>Child and Family Studies</td>
<td>M.S.</td>
</tr>
<tr>
<td>Foodservice and Lodging Administration</td>
<td>M.S.</td>
</tr>
<tr>
<td>Home Economics</td>
<td>M.S.</td>
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<tr>
<td>Human Ecology</td>
<td>Ph.D.</td>
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<tr>
<td>Interior Design</td>
<td>M.S.</td>
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<tr>
<td>Nutrition</td>
<td>M.S.</td>
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<tr>
<td>Textiles, Retailing and Consumer Sciences</td>
<td>M.S.</td>
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<table>
<thead>
<tr>
<th>Intercollegiate</th>
<th>DEGREE</th>
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<tbody>
<tr>
<td>Aviation Systems (UTSI only)</td>
<td>M.S.</td>
</tr>
<tr>
<td>Comparative and Experimental Medicine</td>
<td>M.S., Ph.D.</td>
</tr>
<tr>
<td>Ecology</td>
<td>M.S., Ph.D.</td>
</tr>
<tr>
<td>Industrial and Organizational Psychology</td>
<td>M.S., Ph.D.</td>
</tr>
<tr>
<td>Life Sciences</td>
<td>M.S., Ph.D.</td>
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<tr>
<td>Management Science</td>
<td>M.S.</td>
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<thead>
<tr>
<th>College of Liberal Arts</th>
<th>DEGREE</th>
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<tbody>
<tr>
<td>Anthropology</td>
<td>M.A., Ph.D.</td>
</tr>
<tr>
<td>Art</td>
<td>M.F.A.</td>
</tr>
<tr>
<td>Audiology</td>
<td>M.A.</td>
</tr>
<tr>
<td>Biochemistry</td>
<td>M.S., Ph.D.</td>
</tr>
<tr>
<td>Botany</td>
<td>M.S., Ph.D.</td>
</tr>
<tr>
<td>Chemistry</td>
<td>M.S., Ph.D.</td>
</tr>
<tr>
<td>Computer Science</td>
<td>M.S., Ph.D.</td>
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<tr>
<td>English</td>
<td>M.A., Ph.D.</td>
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<tr>
<td>French</td>
<td>M.A.</td>
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<tr>
<td>Geography</td>
<td>M.S., Ph.D.</td>
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<tr>
<td>Geology</td>
<td>M.S., Ph.D.</td>
</tr>
<tr>
<td>German</td>
<td>M.A.</td>
</tr>
<tr>
<td>History</td>
<td>M.A., Ph.D.</td>
</tr>
<tr>
<td>Mathematics</td>
<td>M.Math., M.S., Ph.D.</td>
</tr>
<tr>
<td>Microbiology</td>
<td>M.S., Ph.D.</td>
</tr>
<tr>
<td>Modern Foreign Languages</td>
<td>Ph.D.</td>
</tr>
<tr>
<td>Music</td>
<td>M.Mus., M.A.</td>
</tr>
<tr>
<td>Philosophy</td>
<td>M.A., Ph.D.</td>
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<tr>
<td>Physics</td>
<td>M.S., Ph.D.</td>
</tr>
<tr>
<td>Political Science</td>
<td>M.A., Ph.D.</td>
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<tr>
<td>Psychology</td>
<td>M.A., Ph.D.</td>
</tr>
<tr>
<td>Public Administration</td>
<td>M.P.A., J.D.-M.P.A., M.S.S.W., M.P.A.</td>
</tr>
<tr>
<td>Sociology</td>
<td>M.A., Ph.D.</td>
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<tr>
<td>Spanish</td>
<td>M.A.</td>
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<tr>
<td>Speech and Hearing Science</td>
<td>M.A.</td>
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<tr>
<td>Speech Pathology</td>
<td>Ph.D.</td>
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<tr>
<td>Theatre</td>
<td>M.F.A.</td>
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<tr>
<td>Zoology</td>
<td>M.S., Ph.D.</td>
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<tr>
<th>College of Nursing</th>
<th>DEGREE</th>
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<tbody>
<tr>
<td>Nursing</td>
<td>M.S.N., Ph.D.</td>
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<tr>
<th>College of Social Work</th>
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<tbody>
<tr>
<td>Social Work</td>
<td>M.S.S.W., Ph.D., M.P.A., M.S.S.W.</td>
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<tr>
<td>(Memphis, Nashville, and Knoxville)</td>
<td>M.S.S.W.</td>
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<tr>
<th>School of Biomedical Sciences</th>
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<tbody>
<tr>
<td>Biomedical Sciences</td>
<td>M.S., Ph.D.</td>
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<thead>
<tr>
<th>School of Library and Information Sciences</th>
<th>DEGREE</th>
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</thead>
<tbody>
<tr>
<td>Library Science</td>
<td>M.S.L.S.</td>
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</table>
Continuing Education and Public Service

Dean:
LaVerne B. Lindsey, Ed.D., Mississippi State University

Associate Dean:
Sam C. Bills, Ed.D., Tennessee

Executive Assistant:
Judy B. Constantine

Continuing Education and Public Service, is the administrative unit of UT, Knoxville that extends academic courses, educational services, and other programs to the non-traditional student. While most people who participate in the programs are adults, persons of all ages and academic levels can be counted among the people who enroll in the credit and non-credit offerings of the Division.

Programs and courses are based upon student needs and desires, whether for self-motivated learning; for leisure and recreational programs; or for professional promotion, certification, licensure, relicensure, or mid-career changes. The Division provides these educational opportunities through program coordination and development of the five departments: Department of Conferences, Department of Independent Study, English Language Institute, Non-Credit Programs, and the University Evening School. Specific programs and services of each department are described on the following pages.

DEPARTMENT OF CONFERENCES

Program Managers:
R. Gibbs, B.S. Tennessee
E. Keener, B.A. Temple University
L. Law, B.S. Tennessee
G. Mosby, M.Ed. Texas South. University
G. Trantham, B.S. Tennessee

Conference Services Supervisor:
M. Purdy

UT Conferences, is a department of the Division of Continuing Education, University of Tennessee, Knoxville. Housed in the UT Conference Center, the staff provides management services to any individual or group who desires to hold a high quality convention, conference or meeting anywhere in the state of Tennessee.

Utilizing the new Conference Center and state-wide University system facilities, major hotels and convention centers across Tennessee, UT Conferences provides a unique contribution to continuing education and public service. Programs are custom designed to meet the needs of the participants in order to achieve maximum learning benefits. Affordable services are tailored within the budget guidelines. The overall plan is administered with the participants' personal and professional enhancement as the objective. Programs which meet appropriate criteria qualify for Continuing Education Units. The Division of Continuing Education maintains a record of CEU's earned and provides records upon written request.

Conferences' staff provides professional guidance and management for small group meetings as well as for major conventions of several thousand delegates. Consulting services begin with the initial planning and budgeting. They continue as UT Conferences acts in the sponsor's behalf in negotiating and contracting all arrangements for lodging, food services, speakers, promotional material, travel, meeting rooms and the myriad of details that must be monitored in order to assure a successful event. The site management team is the first on the scene prior to the event and is prepared to register the early arrivals. Room sets, audio visual equipment, sound systems, refreshment breaks, tours, banquets- every detail is executed as planned and problem solving is made easy through experienced management. A final evaluation after the event reflects a positive performance, a balanced budget and a growth experience for the organization. This turn-key support allows the sponsors to concentrate on quality of program content and to serve as host to attendees.

UT Conferences has joined hands with UT Conference Center or to transmit (uplink) to earth stations around the world. Two-way voice, video and data interactive communications capability also supports teaching and administrative conferencing needs worldwide.

Additional information may be obtained from UT Conferences, P.O. Box 2648, Knoxville, TN 37901, or by calling (615) 974-0250. FAX (615) 974-0264.

ENGLISH LANGUAGE INSTITUTE

Director:
Dale A. Myers, Ph.D., Florida

Assistant Director:
Jan G. Hitt, M.S., Tennessee

Instructors:
Anwar F. Accawi M.Ed., Tennessee
Mostafa Rahbar, M.Ed., Tennessee

The English Language Institute (ELI) is a non-credit language-study program of the University of Tennessee, Knoxville. It is designed to assist students in their pursuit of career goals or educational objectives in the United States. The ELI offers intensive courses for the improvement of student skills in the English language. International students, visitors, and professionals have successfully learned English through study in the ELI.

The courses emphasize the development of communicative ability in listening, speaking, reading, and writing. Faculty members are trained in teaching English to speakers of other languages with differing national backgrounds and varying proficiency in English.

The curriculum consists of eight proficiency levels: 101-108, Introductory through Pre-Academic. Each level meets 4-5 periods each day with classes from the following:

- English Structure (Grammar)
- Listening/Comprehension
- Writing/Composition (Rhetoric)
- Conversation Practice for Communicative Purposes
- Reading and Vocabulary
The Department of Non-Credit Programs provides a comprehensive array of courses and seminars designed to serve the needs or demands of individuals in Knoxville and surrounding communities, as well as those of business and industry throughout Tennessee. Most courses are offered on a seasonal term (Fall, Winter, Spring, Summer) basis, in the evening on the University campus and at selected off-campus locations. The quality of these programs is maintained by utilizing University faculty where possible and citizens of the community who have gained a reputation for certain competencies or technical skills. Business seminars are offered to the public in major cities throughout Tennessee. These can also be delivered "on-site" for business or industrial clients, and instructional services are tailored to the needs of each individual group.

The types of courses offered by the department range from developing personal skills, such as communications, computer literacy, and management development, to human interest courses, such as plants and gardening, health, exercise and fitness. There are also courses which meet certain requirements of the state or other agencies for certification in given fields, such as real estate, aviation, CEBS (Certified Employee Benefit Specialist) and CCA (Certified Credit Administrator). The business seminars range from "hands-on" computer training to topics pertinent to management development for business and industry. "In-house" courses delivered to business and industry help provide for professional development for the area workforce. The department co-sponsors an ongoing program, the Smoky Mountain Field School, with Smoky Mountains National Park. The School consists of intensive weekend and five-day field courses emphasizing outdoor exploration of the Smoky Mountains.

Continuing Education Units (CEU's) are awarded to students satisfactorily completing courses and seminars offered by the department. A CEU is defined by the Southern Association of Colleges and Schools as "ten contact hours of participation in an organized, continuing education experience under responsible sponsorship, capable direction, and qualified instruction." A permanent record of CEU's is maintained by the department. A transcript of all CEU's earned at The University of Tennessee, Knoxville, may be obtained upon written request.

Statewide legislation gives Tennessee citizens who are 60 years of age or older, or those who are totally disabled, the opportunity to audit courses at UT, Knoxville free of charge on a space available basis. Legal verification of either of these conditions is required for enrollment. Additional information may be obtained at The Hess Building, 609 Henley Street, Suite 105, Telephone (615) 974-0150.

### UNIVERSITY EVENING SCHOOL

**Director:**
S.C. Bills, Ed.D., Tennessee

**Associate Directors:**
J.C. Sekule, Ph.D., Tennessee
M.K. Warden, Ed.D., Tennessee

**Assistant Directors:**
L.U. Jurand, M.S., Tennessee
D.J. VonWeisenstein, M.S., Tennessee

**Assistant Professor:**
C.B. Mamantov, Ed.D., Tennessee

**Director, Oak Ridge Resident Graduate Program:**
S.C. Bills, Ed.D., Tennessee

**Assistant Director, Oak Ridge Resident Graduate Program:**
J. Howell, M.S., Tennessee

The University Evening School, in conjunction with academic colleges and departments, administers credit programs for both on and off campus in a variety of nontraditional formats. Support services are provided to assist students in their educational pursuits.

#### On-Campus Evening Program
Classes are offered during late afternoon and evening hours for those students who work or have other commitments during the day. The following undergraduate degrees are available:

- **College of Business Administration** — Bachelor of Science in Business with majors in Accounting, General Business, Economics, Finance, Public Administration, or Management.
- **College of Liberal Arts** — Bachelor of Arts with majors in Art, Economics, Mathematics, Political Science, Psychology, or Sociology.
- **College of Education** — Bachelor of Science with majors in Human Services or Industrial Education with a concentration in Industrial Training.

Some departments within the Colleges of Business Administration, Education, and Engineering offer all courses required for an advanced degree during the evenings. The College of Education offers an M.S. in Technological Education with concentrations in: Adult Education, Business and Marketing Education, Industrial Education, Industrial Training, and Vocational-Technical Education. The College of Business Administration offers all courses required for the MBA degree with a concentration in Management and Venture Analysis. For other majors, consult the appropriate academic department.

#### Mini-Term
The University Evening School offers a Mini-Term during May for those students attending classes on and off campus in a variety of nontraditional formats. Support services are provided to assist students in their educational pursuits.

Each department within the university has responsibility for determining course offerings and instructors. Course offerings and instructors are approved by the appropriate academic departments, and the credit awarded is resident credit.

The College of Education (Off-Campus) offers a Bachelor of Science in Education with a major in Industrial Education (Industrial Training) and the following graduate degree programs are available: Doctor of Education with a major in Educational Administration and Supervision (Chattanooga); Master of Science in Education with a major in Technical and Adult Education (Statewide); Master of Science in Library and Information Science (Memphis).

The University Evening School administers an off-campus program through Oak Ridge Institute for Advanced Studies. Oak Ridge Institute for Advanced Studies conducts undergraduate and graduate courses in many locations away from the Knoxville campus. The courses are scheduled in response to needs and identifiable needs of adult part-time students who live some distance from the UT, Knoxville location. All course offerings and instructors are approved by the appropriate academic departments, and the credit awarded is resident credit.

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ELDERLY AND DISABLED PERSONS

Legislation gives Tennessee citizens who are 60 years of age or older, or those who are totally disabled, the opportunity to attend college correspondence courses or college entrance requirements, for credit or for college entrance requirements. College credit courses, high school courses (for study by correspondence for all campuses of either of these conditions is required for enrollment. Students who are 65 or over, or who are totally disabled, and who desire to receive UT credit for their courses, may pay a reduced charge of $7 per credit hour up to a maximum of $75 for a full-time load. Registration for day and evening classes is handled by the Evening School.

The University Evening School office is located at 451 Communications and University Extension Building on the UT, Knoxville campus and may be reached by calling (615) 974-5361 or 1-800-334-1724. All inquiries concerning these programs are welcome.

DEPARTMENT OF INDEPENDENT STUDY

Director:
David F. Holden, Ph.D. Kansas

Assistant Director:
Samuel A. Cain, M.S. State University of New York (Stony Brook)

The UT, Knoxville Department of Independent Study administers the program of independent study by correspondence for all campuses of the University. The program includes college credit courses, high school courses (for credit or for college entrance requirements), and non-credit courses. College credit correspondence courses are based on regular UT campus courses, and the credit is recorded on the student’s UT transcript. High school courses are based on the curriculum frameworks of the Tennessee Department of Education. Non-credit courses can be taken to meet personal or professional education goals. The courses utilize videotapes and audiotapes as well as traditional print materials. Through this program, The University of Tennessee is able to overcome geographic limitations in performing its services as Tennessee’s land-grant institution of higher education. The program is open to UT students and to anyone who has the educational preparation required for a particular course. UT students must have the approval of their college advising center before they enroll in college credit courses. With the cooperation of a UT instructor, independent study through directed readings may also be arranged through this department for courses not listed in the Independent Study catalog.

The Department of Independent Study also serves as the Tennessee state office for Elderhostel, an education and travel program for people over 60. One-week, non-credit Elderhostel programs are available throughout Tennessee, the U.S., and many countries overseas.

For information and enrollment forms for correspondence courses or Elderhostel, contact: Department of Independent Study, 420 Communications Bldg., The University of Tennessee, Knoxville, TN 37996. Telephone: (615) 974-5134.

The following correspondence courses are offered through the Department of Independent Study. For full course descriptions refer to the listings in this Undergraduate Catalog. For more information and enrollment forms, contact the Department of Independent Study.


Agricultural Economics 470 Natural Resource Economics;
Anthropology 110 Human Origins; 130 Cultural Anthropology;
Child and Family Studies 110 Introduction to Early Childhood Education; 240 Human Sexuality;
Electrical and Computer Engineering 201K Circuits I;
English 101 English Composition I; 102 English Composition II; 201 British Literature I; Beowulf through Johnson; 202 British Literature II: Wordsworth to the Present; 231 American Literature I: Colonial Era to the Civil War; 232 American Literature II: Civil War to Present; 306 Introduction to Shakespeare; Forestry, Wildlife and Fisheries 211K Introduction to Forestry, Wildlife and Fisheries;
French 111 Elementary French, First Semester; 112 Elementary French, Second Semester; 211 Intermediate French, First Semester; 212 Intermediate French, Second Semester; 301 Elements of French for Upper Division and Graduate Students, First Semester; 302 Elements of French for Upper Division and Graduate Students, Second Semester;
Geography 101 World Geography, First Semester;
German 101 Elementary German, First Semester; 102 Elementary German, Second Semester;
Health 110 Personal Health and Wellness; 400 Consumer Health; 406 Death, Dying, and Bereavement;
History 151 Development of Western Civilization; 152 Development of Western Civilization; History 251 History of the United States; 252 History of the United States; 449 History of Tennessee;
Mathematics 115 Statistical Reasoning; 119 Precalculus A; 121 Calculus A; 122 Calculus B; 130 Precalculus I; 141K Calculus I; 142K Calculus II; 201 Structure of the Number System; 202 Probability, Statistics and Euclidean Geometry; 241 Calculus III;
Philosophy 345 Medical Ethics;
Political Science 101 United States Government and Politics;
Psychology 110 General Psychology; 210 Biological Basis of Behavior; 220 Behavior and Experience: Humanistic Psychology; 300 Child Psychology; 310 Learning and Thinking; 330 Abnormal Psychology; 360 Social Psychology; 365 Statistics in Psychology; 395 Research Methods in Psychology;
Religious Studies 326 Images of Jesus; 345 Medical Ethics;
Safety 452 General Safety;
Sociology 100 General Sociology; 110 Social Problems and Social Change; 350 Criminology; 351 Juvenile Delinquency; 363 The City; 415 Sociology of Aging; 451 Criminal Justice;
Spanish 111 Elementary Spanish, First Semester; 112 Elementary Spanish, Second Semester; 211 Intermediate Spanish, First Semester; 212 Intermediate Spanish, Second Semester;
...
ACCOUNTING (009)

201 Principles of Financial Accounting (3) Introduction to financial accounting theory and practice with emphasis on preparation and reporting of financial information. Prerequisite to all other courses in accounting. Prereq: Mathematics 110 or 121.

202 Principles of Managerial Accounting (3) Introduction to managerial and cost accounting concepts with emphasis on uses of accounting data by managers in planning operations, controlling activities, and decision making. Prereq: 201.

311-312 Intermediate Financial Accounting (3,3) Theories, principles, and procedures related to valuation of assets, liabilities and equities; measurement of periodic income; and preparation of financial statements. Prereq: 202 for 311; and 311 with a grade of C or better and Management 303 for 312.

321 Cost and Managerial Accounting (3) Analysis of costing for products, projects, and management control. Topics include cost behavior, cost prediction, budgeting, and responsibility accounting. Prereq: 202 or Coreq: Management 303.

341 Accounting Information Systems (3) Development and use of accounting information systems for collection, organization, and distribution of economic information about organizations for internal and external decision making. Prereq: 321, Management 303, junior standing. Major exam may be given during the last class meetings. F, Sp.

400 Special Topics (3) Critical consideration of selected current topics. May be selected from managerial, cost, financial, systems or auditing. May include written reports and cases. Prereq: 312, 321, and 341 and consent of instructor.

411 Auditing (3) Role of auditing in society, operational auditing, professional auditing standards, auditor's legal responsibilities, audit evidence and reporting, role of internal control and statistical sampling in auditing, applications to specific transaction cycles. Prereq: 312 with a C or better, 341. F, Sp.


431 Federal Income Taxation (3) Survey of the role of taxation in American business, the relationship between advertising and marketing; functional components of the advertising process: research, media, creative, and management.

430 Advertising Research Methods (3) Secondary data and primary research techniques for advertising decisions. Prereq: 250 with a grade of C or better and Statistics 201.

435 Advertising Creative Strategy (3) Basic concepts of creative strategy with intensive practice in developing creative platforms, writing and designing advertisements, and judging creative work. Prereq: 250 with a grade of C or better.

460 Advertising Media Strategy (3) Assessment of markets, vehicle audiences and mathematical techniques for advertising planning, instruction in media planning, buying, and evaluation. Prereq: 340 with a grade of C or better.

480 Advertising Professional Seminar (1) Exploration of career choices in mass communications. Resume and letter writing, interviewing, and portfolio preparation. Prereq: Progression as a major in the Department of Advertising.

483 Advertising Management (3) Case-study approach to advertising decisions. Data analysis and interpretation, generating alternative strategies, oral and written presentation of recommendations. Prereq: 350 and 360 with grades of C or better. Open to marketing seniors in the College of Business Administration with consent of Head of Department of Advertising.

490 Special Topics (1-3) Detailed study of a specialized area of advertising. Ten hours laboratory each week. May be repeated once. Prereq: Progression as a major in the Department of Advertising. Satisfactory/No credit.

493 Independent Study (1-3) Individual study in a specialized area under the supervision of a faculty member. Prereq: Consent of instructor.

AFRICAN AND AFRICAN-AMERICAN STUDIES (022)

201 Introduction to Afro-American Studies (3) Multidisciplinary approach to the Afro-American experience through the Civil War period which examines such issues as traditional African societies, the institution of slavery, the development of African-American culture, the beginnings of Afro-American protest tradition, and the Civil War and Reconstruction.

202 Introduction to Afro-American Studies (3) Multidisciplinary approach to the Afro-American experience from the Civil War through the Civil Rights era which focuses on such topics as Afro-American rural and urban societies, the Afro-American church and education and Afro-American intellectual and protest movements.

310 Introduction to Afro-American Music (3) (Same as Music History 310.)

314 Peoples and Cultures of Africa (3) (Same as Anthropology 314.)

315 Afro-American Anthropology (3) (Same as Anthropology 315.)

319 Caribbean Cultures and Societies (3) (Same as Anthropology 319 and Latin American Studies 319.)

322 Minority Group Politics in the United States (3) (Same as Political Science 322.)

343 Race and Ethnicity (3) (Same as Sociology 343.)

350 History of Jazz (3) (Same as Music History 350.)

352 Afro-American Religion in United States (3) (Same as Religious Studies 352.)

353 Topics in Afro-American Religion (3) (Same as Religious Studies 353.)

364 Contemporary Issues in Afro-American Education (3) 1964 to the present. Examines issues relevant to the current dilemma of providing quality education for the Afro-American student including professional school quotas, intelligence testing, homogeneous grouping, Afro-American college survival, busing, Black English/Standard English controversy. Writing-emphasis course: at least one in-class essay examination and 3000 words of writing outside the classroom. (Same as Curriculum and Instruction 364.)

371-372 African History (3,3) (Same as History 371-372.)

373 African Religions (3) (Same as Religious Studies 373 and Anthropology 373.)

379 Geography of Africa (3) (Same as Geography 379.)

420 Families: Race, Class and Culture (3) (Same as Child and Family Studies 420.)
342 Farm Business Management I (3) Principles and procedures for determining most profitable farm organization and system of operation: nature of managerial problems; farm record keeping; and measures for improving environmental quality. Prereq: Economics 210 and Junior standing. 1 hour and 1 lab. Sp

343 Agribusiness Firm Management (3) Applications in farm planning; spreadsheet analysis of micro and mainframe computers: linear programming techniques; engineering tools; measurement techniques; heat loads and insulation; functional requirements of agricultural buildings; material selection and construction; thermal processing, drying, evaporation, refrigeration and handling of biological materials: physical properties and heat loads and insulation; functional requirements of agricultural buildings; material selection and construction; thermal processing, drying, evaporation, refrigeration and handling of biological materials: physical properties and characteristics of commodity, credit, food, and trade policy; relationship between domestic and international agricultural policy. Prereq: 210 or consent of instructor. Sp

420 Methods of Teaching Agricultural Mechanics (2) Methods for vocational agriculture students. Special competencies for planning, conducting and evaluating agricultural mechanics program. Prereq: Agricultural Engineering Technology 201 on consent of instructor. Sp

435-36 Student Teaching in Agricultural Education (6,5) Full time teaching practice in an approved high school. Applied practices needed by vocational agriculture teachers. Satisfactory/No Credit grading only. Prereq: Admission to Teacher Education and 345 and 346. Coreq: 435 for 436; 436 for 435. Sp

429 African and Extension Education Internship (2-8) Supervised work experience in approved county Extension offices, agricultural businesses, or agriculture related agencies. (Requires living off-campus for a specified time.) Prereq: 411 and consent of instructor. Sp, Su

430 Independent Study (1-3) Individualized study of a special project or problem in Agricultural and Extension Education. Must be selected in consultation with the instructor. Prereq: Consent of instructor. May be repeated for credit. Maximum 6 hours. E

AGRICULTURAL ECONOMICS (047)

110 Orientation to Agricultural Economics and Business (1) Primarily for Agricultural Economics and Business majors in their first year. Introduction to current issues, subject matter areas, and career opportunities in the field. Recommended for all incoming students. Prereq: Economics 210. F

210 Introduction to Agricultural Economics (3) Application of economic principles of demand, supply, price determination, and market structure to agriculture, natural resources, rural community development, and international trade and development. Economic aspects of current issues and problems associated with production, marketing, consumption, resource use, and government intervention in the agricultural, rural and international sectors. Prereq: Economics 201. F, Sp

342 Farm Business Management I (3) Principles and procedures for determining most profitable farm organization and system of operation: nature of managerial problems; farm record keeping; and measures for improving environmental quality. Prereq: Economics 210 and Junior standing. 1 hour and 1 lab. Sp

350 Marketing of Agricultural Products (3) Survey of U.S. food and fiber marketing system; marketing functions; industry structure; market channels; marketing options of farmers; basic analysis of marketing problems. Prereq: 210 or consent of instructor. Sp

352 Commodity and Financial Futures Markets (3) Foundations of futures markets, history and development, price function, and organizational characteristics common to most futures markets. Special topics on risk management, futures risk management, risk management in hedging, and financial futures markets. Prereq: Economics 210 and 211. F, Sp

356 Agriculture and Food Marketing (3) Analysis of the marketing process, focusing on marketing channels and marketing decisions. Special emphasis given to the role of institutions and organizations in marketing decisions. Prereq: Economics 210. F

360 Seminar in Agricultural Economics and Business (3) Primarily for Agricultural Economics and Business majors in their senior year. Analysis of contemporary problems in the field. Discussion of career objectives, options, and placement process. Asignments for written and oral presentation. F

420 Agriculture and Trade Policy (3) Values, goals, and policy process; historical development and current characteristics of commodity, credit, food, and trade policy; relationship between domestic and international agricultural policy. Prereq: 210 or consent of instructor. Sp


442 Farm Business Management II (3) Advanced technical methods for farm business analysis using micro and mainframe computers: linear programming applications in farm planning; spreadsheet analysis of whole farm business; systems analysis and management techniques for risk analysis; income tax management; farm growth and interfarm transfer. Prereq: 342. Sp

450 Agricultural Price Analysis (3) Demand and supply mechanisms in agriculture, price determination, spatial equilibrium, temporal price patterns, pricing institutions, Prereq: 350, Economics 311 and Statistics 302. F


460 Rural Economic and Community Development (3) Historical and theoretical perspective on problems facing rural communities: images between farm and nonfarm sectors; models and tools for analyzing rural development. Prereq: 210 or consent of instructor. F

470 Natural Resource Economics (3) Nature of natural resources; economic efficiency as a basis for natural resource use; externalities in natural resource use; factors influencing environmental quality; alternative public policy tools for influencing natural resource use or improving environmental quality. Prereq: 210 or consent of instructor. Sp

492 Off-Campus Internship (1-3) Supervised experience at department-approved internship site. May be repeated up to a maximum of 3 hours. Prereq: Junior standing. S, N, E.

493 Independent Study (1-3) Directed individual or team research and report writing, for campus internship experience and reporting. Special courses in specific topics. Student must arrange with instructor before registering. May be repeated. Maximum 6 hours. Prereq: Junior standing. E

AGRICULTURAL ENGINEERING (066)

105 Fundamentals of Engineering in Bio-Rosource Systems (2) Application of basic engineering principles as related to bio-resources; problem solving and reporting techniques; engineering tools; measurement techniques. Not available for credit if credit has previously been received for Basic Engineering 131. 1 hour and 1 lab. F

200 Career Opportunities (1) Activities and opportuni- ties in the fields of specialization; required training for each area; projected career activities. 1 hour. F

303 Transport Processes in Biological Systems (3) Analysis of biochemical systems with emphasis on thermal energy and mass transfer. Thermodynamics, conduction and convection heat transfer, and mass transfer. Prereq: Mechanical Engineering 331. Sp

311 Processing Food and Biological Materials (3) Application of basic engineering sciences to processing and handling of biological materials: physical properties, thermal processing, drying, refrigeration, conduction and convection, membrane processes and extraction. Prereq: Engineering Science and Mechanics 341, Agricultural Engineering 303. 2 hours and 1 lab. F

320 Structures and Environment (2) Environmental control systems: electricity, lighting, air conditioning and refrigeration, industrial hygiene and safety, renewable energy, and air conditioning. Prereq: Engineering Science and Mechanics 341, Agricultural Engineering 303. 2 hours and 1 lab. F

331 Power Units and Machinery (3) Internal combustion engines and off-road vehicle power transmission
systems. Ergonomics and operator environment. Functional and structural analysis and performance characteristics of machinery. Prereq: Mechanical Engineering 331 and Engineering Science and Mechanics 321. 2 hours and 1 lab. F

340 Soil and Water Conservation (2) Hydrologic, agronomic, and engineering principles applied to resource management problems including flood and erosion control, drainage, irrigation, and soil and water Science 210. Coreq: 341. Same as Plant and Soil Science 312. S


400 Professional Development (1) Engineering ethics; professional opportunities; professional growth for professional development and continuing education. 1 hour. F

403 Engineering Design Fundamentals (3) Nature of design, functional analysis, creativity, analyses and synthesis; geometric and kinematic requirements; plane mechanism, force, stress, deflection, time analyses applied to design project. Prereq: Senior standing. Design content: 3 hours. 1 hour and 2 labs. F

413 Component Design and Machine Synthesis (3) Synthesis of design; structural, kinematic, power, control, system-oriented problems; experimental, theoretical and numerical design; performance analysis. Prereq: Math 311. 1 hour and 1 lab. Sp, AO

423 Irrigation and Waste Management System Design (3) Design of irrigation and agricultural waste management systems with consideration given to livestock waste characteristics, and impact on crop yield and water quality. Design content: 3 hours. Prereq: 340. 311. 1 hour and 2 labs. F

430 Mobile Hydraulic Power System Design (2) Functional and operational characteristics of mobile hydraulic system components including pumps, valves and actuators; analysis and synthesis of power transmission and control circuits. Prereq: Engineering Science and Mechanics 341. 1 hour and 1 lab. Sp, AO

433 Food and Bioprocessing System Design (3) System design for processing, handling, and storage of food and biological materials; Mass and energy balances, product characteristics, equipment specifications, economic analysis, safety, and human factors considerations. Design content: 3 hours. Prereq: 311. 1 hour and 2 labs. Sp

451 Electronic Systems (4) Basic electronics with biological applications. Analog and digital electronics; sensing and controlling physical and environmental parameters; signal generation, transmission, and signal conditioning; process control. Includes laboratory experiments and design projects. Design content: 1 hour. Prereq: Electrical and Computer Engineering 301. 3 hours and 1 lab. Sp

460 Design of Agricultural Structures (2) Design fundamentals for wood, steel and concrete components, composite and tension members; beam and column design; pole structure design; fasteners and joint design. Prereq: 300. 1 hour and 1 lab. Sp, AO

470 Special Problems in Agricultural Engineering (1-3) Selection, analysis solution and report of problem. May be repeated: E

480 Selected Topics in Agricultural Engineering (1-3) Current trends and problems in agricultural engineering. May be repeated.

AGRICULTURAL ENGINEERING TECHNOLOGY (067)

202 Materials and Fabrication (3) Properties of materials including selected, metal, concrete, plastics and lubricants; drafting and planning reading; fabrication techniques and processes involving hand tools, power equipment, and arc and gas welding. 1 hour and 2 labs. Sp

212 Surveying (3) Measurement of distances, angles, and areas; chainage and profile leveling; topographic mapping and surveying; area computation. Prereq: Math 119 or consent of instructor. 1 hour and 2 labs. F

222 Food and Process Engineering Technology (3) Application of basic engineering principles to agricultural and food processes. Fluid handling, drying, evaporation, thermal processing, heating and cooling, refrigeration systems, and materials handling. Prereq: Physics 121, Mathematics 121. 2 hours and 1 lab. F

432 Agricultural Machinery and Tractors (3) Agricultural machinery and power units; adaptation to agricultural practices; management considerations; field efficiencies; capabilities; adjustment and servicing. Prereq: Mathematics 121. 2 hours and 1 lab. Sp

442 Agricultural Waste Management and Pollution Control (3) Waste renovation fundamentals; characteristics of organic manure; fuel characteristics; transport, storing, and utilizing livestock waste. Prereq: Mathematics 121. 2 hours and 1 lab. F

452 Small Internal Combustion Engines (3) Theory, concepts and mechanics of small internal combustion engines: theoretical and practical aspects of selection, operation, adjustment, troubleshooting and repair of single cylinder engines. Prereq: Physics 121 or consent of instructor. 2 hours and 1 lab. Sp

462 Agricultural Chemical Application Technology (3) Equipment for application of liquid, solid, and gaseous agricultural chemicals; system components, operational characteristics; calibration; selection and management; safety considerations; materials handling and disposal methods. Prereq: Physics 121 or consent of instructor. 2 hours and 1 lab. Sp

AGRICULTURE (088)

101 Perspectives in Agriculture and Associated Natural Resources (3) Historical development, current national and international issues, and trends for the future. 3 hours.

200 Microcomputers in Agriculture and Natural Resources (1) Microcomputer technology as related to agricultural applications. Topics include: microprocessor terminology, architecture, computer peripherals, operating systems, and an overview of application software.

301 Microcomputer Applications in Agriculture and Natural Resources (2) Advanced topics in microcomputer applications for agriculture including system organization and selection, communications, data base management, electronic spreadsheets, project management, and other application software. Prereq: Agriculture 200. 1 hour and 1 lab. Sp

302 Special Topics in Computer Applications for Agriculture and Natural Resources (1) Content varies. May be repeated for a maximum of 3 hours. Request approval for variable title on transcript.

317 Agriculture and Natural Resources Honors Seminar (1) Discussion of selected topics, issues and problems in agriculture and natural resources. Open to juniors and seniors by invitation only. 1 hour and 1 lab. Sp

480 Agricultural Management Systems Analysis (3) Interdisciplinary management oriented course for the application of systems analysis concepts to planning and operation of farm business. Team work, application of technical knowledge to a practical farm situation and evaluation of interrelationships among various subsystems. Open to juniors and seniors by invitation only.
260 The Animal Industry and Market Evaluation (3) Structure and production principles of food animal and horse industries and management practices into cattle, horse, poultry, sheep, and swine enterprises. Application of animal behavior knowledge, handling animals, selection, reproduction, and management. 3 labs. F, Sp

280 Farm Animal Management Practices (3) Integration of horticulture management practices into cattle, horse, poultry, sheep, and swine enterprises. Analysis of principles of management practices in terms of production responses and economic returns. Prereq: Senior standing and consent of instructor. 2 hours and 1 lab. F, Sp

320 The Physiology of Reproduction and Lactation (3) Biology of sex and sexual differentiation, functional anatomy of male and female, reproduction and lactation, gametogenesis, neuroendocrinology and endocrinology of reproduction, sex chromosomes, genetics of reproduction, utilization, and deficiency, pre- and postnatal care, identification, dehorning, castrating, docking, implanting, dubbing, foot care, fitting and grooming, record keeping, reproductive and milking management. 3-2-3 hrs. F, Sp

440 Advanced Animal Breeding (3) Computer simulation of production responses and selection of breeds and traits in swine, beef, and dairy cattle, evaluation of alternative breeding strategies; industrial programs in swine, poultry, sheep, beef, and dairy cattle, breed development, improvement, and utilization. Prereq: 361A 2-hour lab and 1 lab. A-E

461 Advanced Beef Cattle, Dairy Cattle, Horse, Poultry, Sheep and Swine Judging (1) Specialization in judging of beef cattle, dairy cattle, sheep, and swine. Ranking of reasons for classes of beef cattle, dairy cattle, swine, and sheep. Prereq: Consent of instructor. 2 labs. Satisfactory/No credit. F, Sp

463 Beef Cattle Production and Management (3) Integration of principles of nutrition, breeding, physiology, and marketing into complete production and management programs. Structure of industry, enterprise establishment, systems of production, production practices, improvement programs. Management evaluated in terms of production responses and economic returns. Prereq: Completion of Animal Science sophomore and junior core courses or consent of instructor. 2 hours and 1 lab. F

464 Dairy Cattle Production and Management (3) Integration of principles of nutrition, breeding, physiology, and marketing into complete production and management programs. Structure of industry, enterprise establishment, systems of production, production practices, improvement programs. Management evaluated in terms of production responses and economic returns. Prereq: Completion of Animal Science sophomore and junior core courses. 2 hours and 1 lab. F

468 Pork Production and Management (3) Integration of principles of nutrition, breeding, physiology, and marketing into complete production and management programs. Structure of industry, enterprise establishment, systems of production, production practices, and improvement programs. Management evaluated in terms of production responses and economic returns. Prereq: Consent of instructor. 2 hours and 1 lab. F

465 Horse Production and Management (3) Integration of principles of nutrition, breeding, physiology, and marketing into complete production and management programs. Structure of industry, enterprise establishment, systems of production, production practices, and improvement programs. Management evaluated in terms of production responses and economic returns. Prereq: Consent of instructor. 2 hours and 1 lab. Sp - AO

486 Companion, Zoo and Lab Animal Management (3) Principles of nutrition, physiology, breeding, handling, and history of breeds of common household pets, zoo animals and animals used in scientific research. Special topics: species, specific animal care, facilities and agencies governing use of laboratory animals. Laboratory analysis of body metabolites commonly used to monitor health and nutritional status. Prereq: Consent of instructor. 2 lectures and 1 lab. Sp - AE

492 Animal Science Field Study (1-6) Off-campus work experience approved by the department. Objectives to complement traditional classroom activities. The student is required to complete a minimum of 16 hours. Consent of instructor. 1-6 hours and 1 lab. A

430 Advanced Ration Formulation (3) Advanced ration formulation for beef and dairy cattle, sheep, horses, swine, poultry, laboratory, zoology, and companion animals. Mathematical and computer solutions and applications to formulating complex rations with constraints. Prereq: 230 and introductory computer science course. 2 labs. F

493 Independent Study in Animal Science (1-3) Approved supervised study in areas not formally presented in a course offered in the department. Written proposal of study is approved by the Department of Animal Science Undergraduate Committee. After completion of study, a written report is prepared and this report is maintained on file in the reference room of the department. May be repeated for a maximum of 6 credits. Prereq: Senior standing and consent of instructor and department head. E

494 Animal Science Teaching Assistant (1) Assist the primary instructor in laboratory instruction and demonstrations. Prereq: Junior standing and consent of the instructor and Department Head. 5-NC. E

495 Seminar (1) Review of literature and oral and written presentation on special topics and current research in Animal Science field. Prereq: Senior standing. One 2 hour lab. F, Sp

496 Veterinary Medical Technology (1) For Animal Science Majors only. Consent of the instructor and Department Head. Majors only. Consent of the instructor and completion of at least 60 credit hours. Students will observe and assist clinicians in the College of Veterinary Medicine as they carry out day to day activities in the large and small animal clinics. One lab. Sp

ANTHROPOLOGY (122)

110 Human Origins (3) Survey of humanity's background, fossil primates, fossil human remains, and living races of humankind.

120 Prehistoric Archaeology (3)(Same as Anthropology 120.) Introduction to methods and techniques used in prehistoric archaeology, the development of human cultures, reconstruct past lifeways and describe cultural evolution. Overview of the prehistory of Africa, western and eastern Asia, and the Americas from earliest dated human cultures to rise of complex civilizations.

130 Cultural Anthropology (3) Major concepts and methods in the study of culture; survey of cross-cultural similarities and differences; social organization, economic, political, and religious institutions; language, ideology and arts. Contributions of anthropology to resolving contemporary human problems.


220 Prehistory of Tennessee (3) History of archaeological research in Tennessee and survey of prehistoric Indian cultures from initial occupation of the state to European contact.

302 Anthropology of Religion (3) (Same as Religious Studies 302.)

306 Genetics and Society (3) (Same as Botany 306.)

310 North American Indians (3) Comparative overview of Indian cultures of North America. Topical coverages range from prehistory and aboriginal lifeways to problems resulting from contact with Europeans. Writing-emphasis course: at least one in-class essay examination and 3000 words of writing outside the classroom.

311 Southeastern Indians (3) Survey of Southeastern American Indian cultures at the time of European contact. Emphasis on Cherokee culture and the social, economic, and religious organization of aboriginal groups. Prereq: 130 or consent of instructor.

312 Appalachian Culture (3) Traditional Southern Appalachian subsistence patterns and economy, social organization, beliefs and values, folklore and customs: socio-cultural impacts of industrialization and modernization. Prereq: 130 or consent of instructor. Writing-emphasis course: at least one in-class essay examination and 3000 words of writing outside the classroom.

313 Peoples and Cultures of Mesoamerica (3) Pre-Columbian and Hispanic cultures of Mexico, Guate- mala, Belize, El Salvador and Honduras. Patterns of cultural diversity and cultural change throughout Mesoamerican's history. Prereq: 130 or consent of instructor. (Same as Latin American Studies 313.) Writing-emphasis course: at least one in-class essay examination and 3000 words of writing outside the classroom.

314 Peoples and Cultures of Africa (3) Ethnographic survey of peoples of sub-Saharan Africa, focusing on cultural diversity, human ecology, and contemporary issues. Prereq: 130 or consent of instructor. (Same as African-American Studies 314.) Writing-emphasis course.
315 Afro-American Anthropology (3) Anthropological perspectives on lifestyles and status of persons of African descent in North America, South America, and the Caribbean. Prereq: 130 or consent of instructor. (Same as Afro-American Studies 315.) Writing-emphasis course: at least one in-class essay examination and 3000 words of writing outside the classroom.

316 Alcohol, Health and Culture (3) Socio-cultural perspectives and consequences of alcohol use/abuse in various cultural groups. Prereq: 130 or consent of instructor.

319 Caribbean Cultures and Societies (3) Anthropological examination of urban Caribbean cultures and societies. Prereq: 130 or consent of instructor. Writing-emphasis course: at least one in-class essay examination and 3000 words of writing outside the classroom.

320 American Cultures (3) Anthropology in the study of our own society, including such topics as ethnic communities, social classes, power structures, etc. Writing-emphasis course: at least one in-class essay examination and 3000 words of writing outside the classroom. Prereq: 130 or consent of instructor.

360 North American Prehistory (3) Prehistoric cultures of North America from initial occupation of the continent back to the time of European contact. Prereq: 120 or consent of instructor. Writing-emphasis course: at least one in-class essay examination and 3000 words of writing outside the classroom.

361 Historical Archaeology (3) Historical archaeology of Euro-American, Afro-American, and Asian American cultures in the U.S. and its territories. Prereq: 120 or consent of instructor.

362 Principles of Anthropology (3) Research strategies used in developing method and theory, constructing cultural histories, identifying site function and settlement subsistence patterns, and evaluating explanations of cultural change. Prereq: 120 or consent of instructor.

373 African Religions (3) (Same as Religious Studies 373 and Afro-American Studies 373.)

400 Readings in Anthropology (1-6) Problem-oriented directed readings in anthropology. Prereq: Anthropology majors with senior standing or consent of instructor. May be repeated. Maximum 6 hours.

410 Principles of Cultural Anthropology (3) Exploration and illustration of major concepts, theories, and methods in cultural anthropology, with application to analysis of specific ethnographies. Prereq: 120.

411 Linguistic Anthropology (3) Basic linguistic concepts applied to cultural and social anthropology, particularly investigation of relationships between language and culture. Prereq: 130 or Linguistics 200. (Same as Linguistics 411.)

412 Folklore in Anthropology (3) Introduction to anthropological study of folklore, using folklore and folklore materials from various tribal, peasant, and complex societies. Prereq: 130 or consent of instructor.

413 Dynamics of Culture (3) Definition and in-depth study of major forms of culture change, ranging from evolution and diffusion to religious revitalization and political revolt. Continuity and change in diverse cultural settings examined through use of archaeological, ethnographic, and contemporary cases. Prereq: 130.

414 Political Anthropology (3) Examination of the organization and dynamics of power and politics in both stateless and state-level societies. The role of symbols, rituals, and ideologies in producing and reproducing power relations. The relationship between actors (individuals and structures). The encapsulation of traditional political forms and systems within modern states. Prereq: 130 or consent of instructor. Writing-emphasis course: at least one in-class essay examination and 3000 words of writing outside the classroom. Prereq: 130 or consent of instructor.

430 Fieldwork in Archaeology (3-9) Practicum work in archaeological field schools, including group composition, size, and structure; patterns of mating; other social interactions; communication; and cultural behavior. Application of primatology to human studies. Prereq: 130 or consent of instructor. Maximum 9 hours.

431 Ethnographic Research (3) Conceptual and practical exploration of methods and techniques cultural anthropologists use in the field. Prereq: 130 or consent of instructor.

435 Historical Archaeology Laboratory (3) Laboratory procedures for the processing, identification, and interpretation of artifacts from historical sites. Prereq: 120 or consent of instructor. Writing-emphasis course: at least one in-class essay examination and 3000 words of writing outside the classroom.

440 Cultural Ecology (3) Concepts and methods in studying dynamic interaction between prehistoric and present day cultures and their environments. Topics include ecological theory, methods of analysis, and review of selected case studies. Prereq: 120, 130, 410, or consent of instructor.

450 Current Trends in Anthropology (3) Theoretical approaches to issues in anthropology for undergraduate students. Topics may include practical experience or laboratory study of anthropological materials. May be repeated. Maximum 6 hours. Prereq: Either 110, 120, 130, or consent of instructor.

459 Selected Topics in Anthropology (3) Theoretical approaches to issues in anthropology for undergraduate students. Topics may include practical experience or laboratory study of anthropological materials. May be repeated. Maximum 6 hours. Prereq: Either 110, 120, 130, or consent of instructor.

461 African Prehistory (3) African cultural history from the earliest evidence of human presence to the time of European contact. Emphasis on the stone age of Africa south of the Sahara. Prereq: 120 or consent of instructor. (Same as Afro-American Studies 461.) Writing-emphasis course: at least one in-class essay examination and 3000 words of writing outside the classroom.

462 Early European Prehistory (3) Origins and evolution of human culture in Europe through the beginnings of settled life. Prereq: Priority for anthropology majors with senior standing or consent of instructor.

463 Rise of Complex Civilizations (3) Development of complex societies in Old World from origins of agricultural to rise of States. Focus on Mesolithic, Neolithic, and Metal Age lifeways in Africa, Europe, and Asia. Prereq: 120 or consent of instructor. Writing-emphasis course: at least one in-class essay examination and 3000 words of writing outside the classroom.

464 Principles of Zoarchaeology (3) Basic osteological studies of major vertebrate groups, with emphasis on the aboriginal's use of animals in subsistence and culture. Identification and interpretation of archaeologically derived mossulcan and vertebrate remains, with introduction to laboratory and comparative collections. Prereq: 120 or consent of instructor.

465 Urban Archaeology (3) Field archaeology and interpretation of archaeological remains on historic urban sites in the United States. Course content will include lectures and field and laboratory research on urban sites in East Tennessee. Prereq: 361 recommended.

480 Human Osteology (4) Intensive examination of the human skeleton. Prereq: 110 or consent of instructor. 3 hours and 1 hour lab. Prereq: 481.

481 Museology I: Museums, Purpose and Function (3) (Same as Art 481.)

482 Museology II: Exhibition Planning and Installation (3) (Same as Art 482.)

484 Museology III: Field Projects (1-12) (Same as Art 484.)


491 Foreign Study (1-15)

492 Off-Campus Study (1-15)

493 Independent Study (1-15)

494 Primate Behavior (3) Social organization and behavior of primates, particularly regarding group composition, size, and structure; patterns of mating; other social interactions; communication; and cultural behavior. Application of primatology to human studies. Prereq: 110 or consent of instructor.

495 Human Paleontology (4) Introduction to human fossil record from the earliest human remains to the earliest representative of modern human form. Prereq: 110.

496 Biology of Human Variability (3) Introduction to human populations; human adaptation, biological features of major human races; relationships of major groups to one another. Prereq: 110. (Same as Afro-American Studies 496.)

499 Human Response to Environmental Stress (3) Explores the physiological perception of stress from the physical environment and the physiological, anatomical, and behavioral responses to this stress.

ARCHITECTURE (133)

101 Introduction to Architecture (3) Scope and definition of architecture in relation to contemporary society, building industry, and allied design professions. Orientation to programs and schools of the field. F, Sp

111 Architecture and the Built Environment (3) An introduction to architecture and the built environment for non-architecture majors. Significance of our surroundings and the way that they can be changed. Creative aspects of design. Survey of examples from local to global. Strategies for individual and collective involvement.

171 Design Fundamentals I (3) Definition, ideas, and processes of design. Sketch, design studies and free-hand drawing. Introduction to drafting techniques. Prereq: Coreq. 101.


203 Second Degree Program: Seminar I (3) Theory and practice in architecture. Selected readings in history, theory, and design methodology with emphasis on contextual issues and architectural ordering principles. Prereq: 281.

204 Second Degree Program: Seminar II (3) Selected readings in history, theory, and design methodology with emphasis on analysis of architectural exemplars. Prereq: 203. Coreq. 282.


212 History of Architecture II (3) Architectural thought and ideas of building and community form. English Renaissance, late Renaissance in Italy, France and Britain through the mid-twentieth century. Prereq: 211.

213 History and Theory of Contemporary Architecture (3) Architectural thought in design practice in late twentieth century. Examples of contemporary works and review of theoretical issues. Prereq: 212, F, Sp

211 Computer Applications in Architecture (3) Survey of the role of the computer in architecture, its potentials and limitations. Recent developments in computer graphics with specific applications and demonstration. Prereq: F, Sp

232 Introduction to Architectural Technology (3) Place of building technology in architectural design. Introduces concepts and theory of structures; building materials and construction; and environmental controls. Prereq: F, Sp


281 Second Degree Program: Design I (6) Principles of architectural design emphasizing approaches to site planning and design of buildings in relation to function and context. Circulation patterns, structural order, and spatial relationships. Coreq. 203.

282 Second Degree Program: Design II (6) Principles of architectural design emphasizing building structure and form. Design of simple buildings which explore...
formal possibilities of site, form and use. Coreq: 204. Prereq: 281. Sp


323 Advanced Computer Applications (3) Computer applications in architecture with special emphasis on environmental control systems and/or structural calculation. Prereq: Computer Science 102.


332 Architectural Structures II (4) Continuation of analysis and design of simple structures of steel, wood and concrete based upon specific loading requirements. Use of construction and building codes, handbooks and design tables - selection of structural members. Prereq: 331. Sp

333 Advanced Structural Design (3) Analysis and design of steel, buildings. Structural and constructional aspects of buildings, including structures in steel, concrete, masonry, and timber to satisfy loading and building code requirements. Prereq: 332 or equivalent.

334 Advanced Architectural Structures (3) Philosophy of structural design in relation to materials and form. Advanced mathematical and experimental analysis of structures, including use of computer programs. Prereq: 331 or equivalent.

335 Advanced Design of Steel Buildings (3) Construction and maintenance of steel buildings. Large span and special structures, Composite construction. Fireproofing; building code. Prereq: 231 or equivalent.

336 Advanced Design of Concrete Buildings (3) Precast and on-site concrete construction and maintenance, foundations, floor and wall systems. Domes and shell roofs. Prereq: 332 or equivalent.

341 Environmental Control Systems I (4) Heating, ventilating, and air-conditioning systems, including passive and active solar energy systems. Plumbing and fire protection systems. Prereq: 231 and 232. F


400 Service Practicum (0) Experience in architectural or equivalent office for a minimum of 3 months to be completed prior to fifth year entry. E

403 Introduction to Preservation (3) History, theory, and legal aspects of architectural preservation and restoration.

404 Preservation Technology (3) Techniques of preservation: methods of analysis, history of materials and technology used in old buildings.

405 Descriptive Analysis of Historic Buildings (3) Identification and analysis of characteristic elements of buildings from various architectural periods, with emphasis on American architecture. Survey techniques.

406 Ideas in Architecture (3) Historical and critical review of the major ideas of architecture through the ages. Open to all students.

408 Cultural Comparison of Housing Patterns (3) Patterns of shelter and occupation and discrete elements of design for specific cultures with emphasis on housing.

410 History and Theory of Urban Form (3) Patterns of community development. Selected historical and contemporary examples. Basic urban design issues and approaches examined through lectures, readings, and research studies including historical change in urban form and design.

411 Architectural Design Since 1945 (3) Recent architectural developments and views of the future.

412 Non-Western and Indigenous Architecture (3) Building responsive to climate, material availability, and economic level, as designed by anonymous builders. Examples from pre-historic times to the present including the Inuit, the Andes; the Native American; the Arab; Japan; China, Japan.

413 Tennessee Architecture (3) History of settlement patterns and building in Tennessee. Selected standards examined through reading assignments, lectures, discussion, and field trips. Historical research using primary materials.

414 History of Architectural Technology (3) Building materials and construction techniques from antiquity to the present.

415 Medieval Architecture (3) History of architecture from the decline of Rome to the beginning of the Renaissance. (Same as Medieval Studies 415.)


417 The International Style (3) A survey of architecture of the early modern movement, primarily in Europe and America, covering the years 1900 to 1940.


420 American Architecture, 1860 - 1940 (3) Stylistic periods from the Gothic Revival through the Twentieth Century.

421 History of Landscape Architecture (3) Intercultural, societal, and geographical influences which provide the theoretical basis for design throughout history. Selected examples of landscape architecture analyzed in terms of design.

422 Modern East European Architecture (3) Twentieth-century architecture in Russia, Czechoslovakia, Poland, Hungary, East Germany, Rumania, Bulgaria, Yugoslavia.

425 Special Topics in Architecture (1-4) Individual projects under faculty direction. Credit adjusted to project complexity and level of effort. May be repeated. Maximum credit 6 hours. F, E

426 Special Topics in History, Theory and Criticism (1-4) Special topics in historiography of architecture. May be repeated. Maximum credit 6 hours.

431 Structural and Mechanical Applications (4) Analysis and design of structural and mechanical systems for a specific case study to integrate technical information into a unified design solution. Prereq: 332, 342. Coreq: 471. F

432 Earthquake-Resistant Structures (3) Analysis and design of structures to resist earthquake effects. Earthquake physics, soil and base motion, degree structural design, resonance and damping, relationship to dynamic analysis of structures, instrumentation and structural response, frame and shear wall design. Prereq: Consent of instructor. (Same as Civil Engineering 432.)

433 Earthquake-Resistant Structures (3) Analysis and design of structures to resist earthquake effects. Earthquake physics, soil and base motion, degree structural design, resonance and damping, introduction to dynamic analysis of structures, instrumentation and structural response, frame and shear wall design. Prereq: Consent of instructor. (Same as Civil Engineering 432.)

435 Planning and Design of Tall Buildings (3) Architectural, economic and urban design considerations in design of tall buildings. Environmental and service systems; wind, fire and earthquake resistance; structural and constructional systems; building standards, steel, concrete, and masonry structures; foundations. Prereq: Consent of instructor.

436 Architectural Development (3) Principles and practice of the architect as a developer. Impact of economics, finance and urban policy on the design and development of real estates. Open to all students.

466 Marketing Services (3) Theories of marketing for the architectural professional. Sp


472 Architecture Design VI (6) Order and form in complex buildings developed to address programmatic, structural, energy and environmental issues. Coreq: 471. Sp


480 Comprehensive Design Project I (3) Project selections and preparation for Architecture 482. Formation and documentation of hypotheses. Preparation of background and program information. Goals and concepts set forth. To be taken semester immediately preceding Architecture 482. F

481 Advanced Architectural Design Topics (6) Special areas which affect architectural design, such as alternative approaches to design, energy, urban design, lighting, sound, member stiffness and flexibility matrices, architecture of structure stiffness and flexibility matrices. Prereq: Consent of instructor. (Same as Civil Engineering 433.)

482 Comprehensive Design Project II (6) Student selected project under faculty direction. Exploration of design hypothesis which informs the character of a substantial building design. (See Architecture 480.) Coreq: Project will address all issues of environ-
ment, structure, enclosure, use, and ethical consideration of design appropriateness. Design is expected to stand up to rigorous scrutiny regarding strength of idea, economy of means, durability, validity for stipulated use, quality of cultural setting, and character of setting. Prereq: 480 and satisfactory completion of all design courses. Sp

491 Foreign Study (1-15) Research and design projects conducted in various locations abroad. F, Su

492 Off-Campus Study (1-15) Studies conducted under direction of architect or expert in an allied profession, in service to public service organizations or agencies of government, and public groups. Not a Design Course elective.

493 Independent Study (6) Faculty initiated studies and projects with approval by the dean and conducted in a studio. May be repeated once. Prereq: Consent of dean.

ART (140)

101 Studio Fundamentals: Drawing and Design (2) Introduction to basic drawing media, concepts and techniques and to the elements and principles of pictorial organization.

103 Studio Fundamentals: Three Dimensional Design (2) Projects dealing with real space and three dimensional materials. Primarily for art, architecture, art education, and interior design and housing majors.

104 Fabric: Experimental Media on Cloth (3) Experimental media and methods in development of two dimensional fabric works. Includes discharge dyes, use of copy machine transfers, airbrush, machine free stitching, pencils, and related equipment.

105 Fiber: Three Dimensional Non-Woven Structures (3) Contemporary approaches to fiber art including exploration and experimentation with various fiber media and techniques in development of sculptural fiber forms.

106 Introduction to Metalsmithing and Jewelry (3) Basic metalworking and jewelry fabrication techniques including repoussé, annealing, forging, chasing, embossing, dapping, drawing, rolling,inking, soldering, fusing, polishing, and patination with individual studio problems to develop a personal style of expression.

151 History of Graphic Design/Illustration (2) Major movements and pivotal artists/designers/illustrators/art directors, 1850 to the present, and their impact on current graphic design trends. (Does not apply to art history requirement.)

161 Basic Printmaking (3) An introductory survey of printmaking with studio experience in xerography, monotype, cliché-verre, relief, and collotype.


172 Western Art (3) Major monuments in Western Art with emphasis on Europe from prehistory through the Middle Ages. Writing emphasis course: at least one in-class essay examination and 3000 words of writing outside the classroom.

173 Western Art II (3) Major monuments in Western Art with emphasis which range from Surrealism through Abstract Expressionism, Pop Art, Post-Painterly Abstraction, Op Art, Kinetic Art, Happenings, Environments, Conceptual Art, Minimal Art, and Super Realism.

176 Experiencing Art (3) Form and meaning in the visual arts. Lecture-discussion. Especially for non-majors.

183 Asian Art (3) Art of Central and Southeast Asia, India, China, Korea, and Japan from prehistory through common Buddhist forms and into modern media. Writing emphasis at least one in-class essay examination and 3000 words of writing outside the classroom.

191 Introduction to Studio Art: Various Media (3) Individual sections for various artistic disciplines. For non-majors only. Course may be repeated, maximum may not be repeated. Maximum 12 hours. Writing emphasis course.

201 Fabric: Painting and Dyeing (3) Painting and dyeing processes in the development of surface design on fabric, including batik, direct drawing, and other related approaches.


204 Fiber: Woven Wall Works (3) Fabrication of woven wall forms on the vertical loom, with emphasis on experimental use of fiber media in development of architecturally scaled wall works.

205 Jewelry (3) Metalworking and jewelry techniques emphasizing integration of casting and fabrication methods (including lost-wax, casting, and hollow form) with individual studio problems to develop a personal style of expression. Prereq: 101. May be repeated. Maximum 6 hours.

206 Enameling (3) Graphic, painterly, and dimensional capacities of vitreous enamel techniques (including basse-taille, cloisonne, plaque-a-jour, limoges, sgraffito, gysrapille, and champeche) with individual studio problems to develop an individual style of expression. May be repeated. Maximum 6 hours.

209 Special Topics in Fiber and Fabric (3) Student or instructor-initiated course to be offered at convenience of department. Prereq: Determined by department for individual topic. May be repeated. Maximum 12 hours.


212 Drawing II: Life Drawing (3) Development of drawing and observational skills with special emphasis on structure and dynamics of the human figure and of the figure in environment. Prereq: 211. May be repeated. Maximum 6 hours.

213 Painting I: Introduction (3) Capacities of oil and acrylic painting on canvases. Prereq: 101, 103 for art majors; none for non-art majors.

214 Painting II (3) Techniques of expression in oil and/or acrylic. Prereq: 213 for art majors; 191-Painting for non-art majors. May be repeated. Maximum 6 hours.


216 Watercolor II (3) Capacities of transparent watercolor, with attention to individual exploration of surface, space, and concept. Prereq: 215 for art majors; Art 191-Watercolor for non-art majors. May be repeated. Maximum 6 hours.

219 Special Topics in Drawing/Painting (3) Student or instructor-initiated course offered at convenience of department to enhance and expand the painting, drawing, and watercolor curriculum. Prereq. Determined by department for individual topic. May be repeated. Maximum 12 hours.

221 Ceramics I: Handbuilding (3) All ceramic handbuilding techniques including forming methods, glazing, clay preparation, firing of small and large scale pieces. Ceramic history through slide lectures.

222 Ceramic II: Throwing (3) Thrown ceramic forms including functional utilitarian pottery techniques, glazing and firing methods. Prereq: 221 for art majors; 191-Ceramics for non-art majors.

229 Special Topics in Ceramics (3) Student or instructor-initiated course offered at convenience of department. Prereq. Determined by department for individual topic. May be repeated. Maximum 12 hours.

231 Photography I (3) Art of black and white photography. Field and studio shooting, history of photography, basic developing, and enlarging techniques.

232 History of Photography (3) Photography as a fine art. Emphasis on work of Stieglitz, Strand, Weston, and White. (Does not apply to art history requirement.) Prereq: 231.

239 Special Topics in Photography (3) Student or instructor-initiated course offered at convenience of department. Prereq. Determined by department for individual topic. May be repeated. Maximum 12 hours.

241 Sculpture I (3) Problems which explore basic materials and techniques including clay modeling, plaster construction, moldmaking. Limited work in plastics, wood, or metal.

242 Life Sculpture I (3) Modeling techniques in clay and wax, working from figure. Possibilities of expression with human figure as subject. Modeling process as both observational and material handling technique. Prereq: 101. May be repeated. Maximum 6 hours.

243 Metal Cast Sculpture I (3) Metal casting methods in bronze or aluminum. May include lost wax, styrofoam sand, ceramic shell casting methods. May be repeated. Maximum 6 hours.

244 Wood Sculpture I (3) Wood as sculptural medium. May include use of hand and power tools, carving, and construction.

245 Steel Sculpture I (3) Problems to introduce steel as a material for the creation of sculpture. Development of welding techniques.

246 Mixed Media Sculpture I (3) Use of two or more materials, and a variety of sculptural techniques, joined to create dimensional form. May include carving, modeling, molding, construction, and found objects.

249 Special Topics in Sculpture (3) Student or instructor-initiated course offered at convenience of department. Prereq. Determined by department for individual topic. May be repeated. Maximum 12 hours.

251 Beginning Graphic Design (3) Survey of graphic design tools, materials, techniques, lettering, and use of type; layout and design. Prereq: 101, 103.

252 Production (3) Design and layout; practice of mechanical preparation of art for various printing processes; skills and craftsmanship emphasized. Prereq: 251.

253 Advertising Design (3) Fundamentals of lettering and layout for newspaper, magazine, television, outdoor advertising. Non-art majors only.

256 Individual Projects in Graphic Design/Illustration (3) Prereq: Consent of instructor. May be repeated. Maximum 6 hours.

259 Special Topics: Graphic Design/Illustration (3) Student or instructor-initiated course offered at discretion of department. Prereq: Determined by department for individual topic. May be repeated. Maximum 12 hours.

262 Intaglio I (3) Metal plate intaglio printing in traditional and contemporary techniques of etching, softground, drypoint, mezzotint, aquatint, and photo-etching. May be repeated. Maximum 6 hours.

263 Lithography I (3) Stone and aluminum plate lithography applying traditional and contemporary techniques of crayon, tusche, transfer methods, and state proofs. May be repeated. Maximum 6 hours.

264 Screen Printing I (3) Screen printing as a fine art medium including development and application of various basic stencils in compositional printing. May be repeated. Maximum 6 hours.

289 Special Topics in Printmaking (3) Student or instructor-initiated course offered at discretion of department. Prereq: Determined by department for individual topic. May be repeated. Maximum 12 hours.

297 Special Topics in Art History (3) Student or instructor-initiated course offered at convenience of department. Prereq: Determined by department for individual topic. May be repeated. Maximum 12 hours.

299 Papermaking Workshop (3) Papermaking as a medium for two and three-dimensional art. Includes sheet forming, embedding, laminating, embossing, pulp dyeing, infiltration, casting, and other related techniques. Emphasis on development of a personal form.

299 Film Design (3) Introductory theory and practice of film making. Emphasis on graphic elements through use of motion picture camera. (Same as Cinema Studies 292.)

295 Intermediate Design and Color (3) Further exploration of basic techniques of two-dimensional design, with emphasis on color theory and technique. Prereq: 101, 103.