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, complex geometry, history of mathematics, probability, and statistics.

Mathematics 115: Statistical Reasoning (3); Mathematics 130: Precalculus (3); Mathematics 141-142: Calculus I and II (4,4); Mathematics 211: Discrete Mathematics (3); Mathematics 241: Calculus III (3); Mathematics 251: Matrix Algebra (3); Mathematics 323: Probability (3); Mathematics 400: History of Mathematics (3); Mathematics 451: 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 competencies 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 courses. Courses included in the major have been selected to maximize the number of upper division courses that can be taken within prerequisites.

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

Mathematics (12 hours):

Mathematics 221: Discrete Mathematics (3); Mathematics 225: Matrix Algebra (3) Any two of the following: Mathematics 400: History of Mathematics (3); Mathematics 491: Microcomputing (3); Mathematics 460: Geometry (3).

Science (20-24 hours) NB: One of the science sequences listed below may be used to satisfy either general education requirements or the distribution requirements under Natural Science, Part II.

Part I (4–16 hours) A sequence from two of the following three scientific areas (A, B, or C).


B. Chemistry: Either Chemistry 100-110: Principles of Chemistry, Introduction to Organic, and (Biology 129-130: General Chemistry I and II (4,4) or Biology 110-119 (4,4) as per Biology 100 (4,4) or Zoology 117-118 (4,4) or Biology 110-120 (4,4) or two years of high school chemistry are prerequisites to both Biology 210-220-230 and Zoology 230-240).

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 300: Soil-Ecological Impact of Plants (3); Botany 309: Biology of Human Affairs (3); Geography 334: Meteorology (3); Geology 201: Fossils and the Meaning of Evolution (5); Geology 220: Geology of National Parks (3); Geology 300: 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 Sciences, Part I of the Liberal Arts Distribution requirements.

Math 101-115, 121-122, 121-Statistics 201, 201-202 or one of the Mathematics courses in the 201-202 sequence is chosen, it will satisfy the distribution requirements under Natural Science, Part II.

Required courses:

Art 167: Art History (3); Art 161: Asian Art (3); Music 110: Music Appreciation (3); Theatre 100: Introduction to Theatre (3).


6 hours of non-performance courses from 2 or 3 of the following departments: Art 173: Western Art I (3); Art 165: Medieval Art of the West, 800-1400 (3); Art 192: The Art of Italy: 1475-1750 (3); Art 384: Art of Southern Europe: 1575-1700 (3); Art 385: Chinese Art (3); Art 383: Japanese Art (3); Art 477: 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 19th Century Painting in Europe and America (3). Art 476: History of 19th Century Painting in Europe and America (3). Art 476: History of 19th Century Painting in Europe and America (3).

(c) Additional hours at the 300 level or higher from any of the courses listed above.

(d) Course requires intermediates level in the language.

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

(6) Language Arts

This concentration should develop knowledge, understanding, 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: Mathematics 101-115, 121-122, 121-Statistics 201, 201-202 or one of the Mathematics courses in the 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 at least from 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: the English Department or Theatre 470-471: Playwriting (3,3)

6 hours from: Audiology and Speech Pathology 305: Speech Science (3); Phonetics and Acoustics of Speech (3); Audiology and Speech Pathology 300: Speech and Language Development; 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 Herbert courses in Departments of English, Classics, or Foreign Language at 300 level or above

Total: 32 hours (at least 24 at 300 level or above)

(7.) Ideas and Values
This concentration aims at developing an understanding of the 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.

Required courses: (6 hours)

1. Philosophy 300: Ancient Western Philosophy
2. Philosophy 301: Ancient Eastern Philosophy
3. Philosophy 302: Medieval Philosophy
4. Philosophy 324: Seventeenth and Eighteenth Century Philosophy
5. Philosophy 330: Nineteenth and Twentieth Century Philosophy
6. Philosophy 375: Philosophy of Religion
7. Philosophy 390: Philosophical Foundations of Democracy
8. Philosophy 395: Existentialism
9. Philosophy 411: Modern Religious Philosophies
10. Philosophy 415: Contemporary Religious Thought
11. Philosophy 425: Women in Western Philosophy
12. Philosophy 431: Marxism
13. Philosophy 432: American Political Thought
14. Philosophy 440: African Political Thought
15. Philosophy 445: Hindu Political Thought
16. Philosophy 450: Islamic Political Thought

At least 9 hours at the 200 level or above from the following or from an option approved through petition:

Classics 221: Early Greek Mythology
Classics 222: Ovidian Greek and Roman Mythology
Philosophy 300: Ancient Western Philosophy
Philosophy 302: Medieval Philosophy
Philosophy 324: Seventeenth and Eighteenth Century Philosophy
Philosophy 330: Nineteenth and Twentieth Century Philosophy
Philosophy 375: Philosophy of Religion
Philosophy 390: Philosophical Foundations of Democracy
Philosophy 395: Existentialism

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. Prerequisites 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, 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: (5 hours)

1. American Studies 310: Introduction to American Culture: Voices of Giants (3)
2. American Studies 410: Topics in American Culture (3)
3. 6 hours from any U.S. History courses
4. 3 hours in Appalachian Studies selected from:
   Anthropology 312: Appalachian Culture (3)
   Geography 365: Geography of Appalachia (3)
   History 449: Territorial History (3)
5. 6 hours in American literature at 400 level

Total: 9 hours from the following:

Anthropology 360: North American Pre-Columbian Civilizations (3)
Anthropology 375: Culture and Society in the United States (3)
Anthropology 377: Buddhist Philosophy and Religion (3)
Anthropology 378: Chinese Philosophy and Religion (3)
Anthropology 379: East Asian Philosophy and Religion (3)
Anthropology 380: Greek and Roman Mythology (3)
Anthropology 381: Medieval Philosophy (3)
Anthropology 382: Renaissance Philosophy (3)
Anthropology 383: Religion in Japan (3)
Religious Studies 412: Classical Indian Systems of Philosophy (3)
Religious Studies 420: Seminar in Asian Religions (3)

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

(9.) Human Learning and Behavior
The purpose of this option is to develop knowledge and insights into societal influences and the ways in which human thought, and act, through various stages of development. Of the 30 hours, at least 2 (2) courses 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, 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:

1. Child and Family Studies 210: Development (3)
2. Child and Family Studies 213: Development in Middle Childhood and Adolescence (3)
3. Educational and Counseling Psychology 210: Introduction to Developmental Psychology for Teachers (3)
4. Psychology 300: Child Psychology (3)

6 hours from courses related to culture and society from at least 2 of the following areas: American Studies 400: Black Communities in Urban America (3)
Anthropology 120: Cultural Anthropology (3)
Anthropology 250: American Cultures (3)
Anthropology 374: Anthropology in Appalachia (3)
Anthropology 375: Anthropology in Appalachia (3)

6 hours from:

1. Anthropology 310: Introduction to American Social Science (3)
2. Anthropology 311: American Social Science (3)
3. Anthropology 372: American Social Science (3)
4. Anthropology 410: Principles of Cultural Anthropology (3)
5. Anthropology 414: Dynamics of Culture (3)
6. Human Services 230: People and Problems of Appalachia (3)
7. Sociology 310: American Sociology (3)
8. Sociology 311: Family and Relationships (3)
9. Sociology 363: The City (3)
10. Sociology 380: Rural Sociology (3)

6 hours in courses related to family from:

1. Anthropology 310: Introduction to American Social Science (3)
2. Anthropology 311: American Social Science (3)
3. Anthropology 372: American Social Science (3)
4. Sociology 310: American Sociology (3)
5. Sociology 311: Family and Relationships (3)
6. Sociology 363: The City (3)
7. Sociology 380: Rural Sociology (3)

6 hours in courses related to family from:

1. Anthropology 310: Introduction to American Social Science (3)
2. Anthropology 311: American Social Science (3)
3. Anthropology 372: American Social Science (3)
4. Sociology 310: American Sociology (3)
5. Sociology 311: Family and Relationships (3)
6. Sociology 363: The City (3)
7. Sociology 380: Rural Sociology (3)

12 hours related to human development, learning, and behavior in at least 2 of the following areas (courses not taken in the above areas must be approved by the appropriate faculty advisor):

1. Child and Family Studies 411: Development in Infancy and Early Childhood (3)
2. Child and Family Studies 412: Assessment in Early Childhood Programs (3)
3. Educational and

College of Liberal Arts:Pre-Teaching Social Science Option
(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. Pre-requisite 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, 121-112, 121-312, Statistics 101, 120-115, 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: (8 hours)
- Geography 101-105: 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 Social (3)
Sociology 446: The Modern World System (3)

3 hours Curriculum and Instruction 451: Supervision in Action (3)

18 hours selected from Geography, Afro-American Studies, Anthropology, Economics, History, Latin-American Studies, Religious Studies, Sociology, with a multicultural emphasis in any 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 proficiency and appreciation of the social sciences and broaden the historical and geographic knowledge base. Pre-requisite 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, 121-112, 121-312, Statistics 101, 120-115, 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: The Development of Western Civilization (3, 3) or History 161-162: History of World Civilization (3, 3)
Political Science 101: United States Government and Politics (3) or Political Science 102: Government and Politics (3); History 251-252: History of the United States (3, 3)
Anthropology 120: Prehistoric Archaeology I (3) or Anthropology 130: Cultural Anthropology (3)
Biology 360, 369

Total: 24 hours

Core courses: Geography 330: Cultural Geography: Core Concepts (3)
History 370: Historical Issues (2) or History 379: American Issues: Individualization and Community (3) or History 380: American Issues: War and the Peaceful Ideal (3)

6 hours from the following: History 363: History of Latin America (3, 3)
History 365: History of East Asia (3, 3)
History 366: History of China (3, 3)
History 367: Ancient Near East Civilization (3, 3)
History 369: History of the Middle East (3, 3)

6 hours from the following: Afro-American Studies 371-372: African History (3, 3)
Economics 100: Survey of Economic Ideas (3)
Economics 201: Introductory Economics (3)
Sociology 100: Social Problems (3)
Sociology 200: Introduction to Human Services (3)
Psychology 110: General Psychology (3)
Women's Studies 310: Emergence of the Modern American Woman (3)
Women's Studies 322: 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 Language, Sociology, Anthropology

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

PRE-VETERINARY MEDICINE PROGRAM
The following program is designed for students who wish to pursue a Bachelor of Science degree while preparing for the study of Veterinary Medicine. Students following 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 two years (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.
Completion of required courses in this program does not assure admission to the College of Veterinary Medicine.

SCIENCE-MEDICAL TECHNOLOGY CURRICULUM
Students who complete the Science-Medical Technology Curriculum will have a Bachelor of Science degree with a major in medical technology from the College of Liberal Arts. This curriculum requires a minimum of 90 credit hours which includes at least two years of study at the University of Tennessee. After completion of this program, students are then eligible for examination by the Board of Registry of the American Society of Clinical Pathologists in order to be certified as registered medical technologists.

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours Credit</th>
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<tbody>
<tr>
<td>English 101-102</td>
<td>6</td>
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<tr>
<td>Chemistry 100-102</td>
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<tr>
<td>Biology 110-112 or Zoology 117-127</td>
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<tr>
<td>English 102</td>
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<td>Basic Skills (B) Foreign Language (Intermediate Level)</td>
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<tr>
<td>Mathematics</td>
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<td>Science</td>
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<td>Biochemistry 410</td>
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<td>Chemistry 350, 360, 369</td>
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<tr>
<td>Divisional Distribution (A) Non-U.S. History</td>
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<tr>
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<tr>
<td>Divisional Distribution (C) Social Science</td>
<td>12</td>
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<td>Physical Education</td>
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<td>Divisional Distribution (C) Social Science</td>
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<td>Upper Level Distribution (A) U.S. Studies</td>
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<td>Capstone Experience</td>
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Total: 93 hours

Optional hours courses
The College of Veterinary Medicine requires 9 hours of General Education (English, Biology 110-112 or Zoology 117-127) and a minimum of 18 hours in the Social Sciences. Students who have accepted an appointment, either by Take-All or Competitive Placement, may elect to take an 18th hour of Social Science.

On-campus courses
A minimum of 6 credits must be earned from a minimum of 6 credits in the Social Science. Students may complete a minimum of 6 credits from the Social Science. Students who have accepted an appointment, either by Take-All or Competitive Placement, may elect to take an 18th hour of Social Science.
For additional information contact Teacher Certification Office; Room 212 Clinton 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 at least 12 hours. The maximum number of hours which will be taken by liberal arts students is 18, exclusive of work in area of musical and physical education. Exceptions to this rule will require approval by the Associate Dean 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 freshmen 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 these classes 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 the traditional grading scale) in a restricted area. A student who desires to take a course on a S/NC basis is provided to encourage the able student to venture beyond the limits of those courses in which the student does well and, motivated by personal curiosity, to explore subject matter in which performance may be somewhat less outstanding that work in preferred subject fields.

2. No student who wishes to do such work on the traditional grading scale and No Credit is defined as less than C. The following regulations apply:

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ART

**Producers:**
- D. F. Kirkus (Head), Ph.D., New York; J. S. Feb (Assistant, Indiana), M.S., Michigan; R. A. Clark, M.S., Virginia; D. G. Closner (Emanuel), Ph.D., Chicago; J. S. Feb, Ph.D. Ohio State; W. C. Hambly, M.S., Ohio State; P. H. Linn, M.A., Wisconsin; F. H. Marten, Ph.D., Chicago; P. G. Nichols, M.A., Michigan; D. Peacock, M.S., Iowa; F. C. Stewart, M.A., Florida.

**Associate Producers:**

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

**B.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 of attendance, regardless of the credit hour earned. Completing the B.F.A. program may take more than 8 semesters. Students are urged to consult their major advisor for assistance on course placement and job openings.

Transfer students are advised to maintain 21 hours in studio courses, and 6 upper division hours in art history, must be earned prior to graduation. Two options are available:

- No grade below “C” in art courses may be earned prior to graduation.
- Two options are available:
  - A minimum of 40 credit hours, 300 level or above, must be earned prior to graduation.
  - Transfer students who expect to enroll in 300 (junior level) or 400 (senior level) courses must present a portfolio of 10-15 works, the majority of which must be in their major area of concentration.

No grade below “C” in art courses may be earned prior to graduation.

**Basic Requirements**

- Core: 40 hours
- Art History 171, 172 3, 3
- Studio 201, 202 5

**Approved Concentrations (All minors must include a minimum of 20 hours of upper division courses in the major):**

- Ceramics: Art 271, 272 6
- Painting: Art 213, 214 7
- Sculpture: Art 261, 262 9
- Graphic Design/Illustration: Art 242, 243 7
- Foundation: Art 231, 232 7
- Printmaking: Art 219, 218 8
- Drawing: Art 215, 216 8
- Visual Resources: Art 167 3

**Total: 32**

**Studio Electives**

Additional hours in studio courses to be completed in the Art Department or at our affiliated facility, Arrowmont School of Arts and Crafts. Students may also include a minor in an approved area of study (from the Studio Area of the College of Education, Art Education). No grade below “C” in all studio courses required for graduation. Students are also advised to consult their major advisor for assistance on course placement and job openings.

**General Curriculum**

- English Composition 3, 3
- Science/Mathematics 4, 4
- Foreign Language 3, 3
- Total: 16-18
A minimum of 12 hours from one of the following Art 353, 354, 453, 454 in sequence ........................................ 12
Art 356 ........................................................................ 1
Art 151 ........................................................................ 2
Art 231 ........................................................................ 3
Art 212, 9 hoursof drawingelectives......................12
Art 350 (S/NC) .......................................................... 0
Art 295, 211, 213 (or 215) ......................................... 9
Art 101, 103 ............................................................... 4

ILLUSTRATION CONCENTRATION

Art Core Art 172, 173 .............................................. 9
Art History electives ........................................... 6
Art 181 ................................................................. 4
Art 281, 211, 213 (or 215) ....................................... 9

Total: 26

Design and Professional Electives


Studio Electives

Students must choose a total of 12 hours from a minimum of two categories: (1) Fiber-Fabric; (2) Papermaking; (3) Printmaking; (4) Ceramics; (5) Sculpture; (6) Metal Design

Professional Electives

Advertising 250, 290, Broadcasting 330, Marketing 101 ........................................... 6

Total: 33

Total: 107 hours

ILLUSTRATION CONCENTRATION

Art Core Art 171, 173 .............................................. 9
Art History electives ........................................... 6
Art 181 ................................................................. 4
Art 281, 211, 213 (or 215) ....................................... 9

Total: 28

Illustration

Art 353 (S/NC) .......................................................... 6
Art 213, 9 hours of drawing electives ......................... 12
Art 231 ................................................................. 9
Art 181 ................................................................. 2
Art 295 ................................................................. 6
Art 393, 394, 413, 414, 454 in sequence ..................... 12

Total: 44

Studio Electives

A minimum of 12 hours from one of the following plus 3 hours from a second area: (A) Fiber-Fabric; (B) Painting; (C) Printmaking; (D) Sculpture; (E) Watercolor

Both courses must be taken concurrently.

ART HISTORY

Art Core Art 172, 173, 181 ...................................... 15
Art History electives ........................................... 3
Art 101, 103 ........................................................... 4

Total: 27 hours

GENERAL CURRICULUM

English Composition ........................................... 6
History of U.S. Society ......................................... 6
Natural Science/Mathematics ................................. 4-15
Liberal Arts Non-Art Electives ................................. 12

ASIAN STUDIES

A minimum of two categories: (1) Fiber-Fabric; (2) Papermaking; (3) Printmaking; (4) Ceramics; (5) Sculpture; (6) Metal Design

Professional Electives

Advertising 250, 290, Broadcasting 330

Marketing 101 ...................................................... 6

Total: 6

University of Tennessee, Department of Art.

in 1954, Pi Beta Phi Fraternity established an affiliation with The University of Tennessee, and with the Department of Art in 1978. The program currently includes spring and summer one and two week media workshops, special weekend conferences, and community classes. Media offerings include: clay, fiber, fabric, metal, wood, stained glass, leather, papier-mache, 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 intend well equipped studios, an campus book and supply store, a large auditorium, art therapy, and resident accommodations. The Arrowmont Gallery presents changing juried, invitational, theme or ready 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, alumni clubs, and individual members.

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

Audiology and Speech Pathology

Professors: P. J. Connolly (Head), Ph.D. Iowa; S. Adler, Ph.D. Ohio State; C. W. Aron, Ph.D. Ohio State; D. M. Lipscomb (Adjunct), Ph.D. Northwestern, H. L. Liper, Ph.D. Ohio State; I. V. Nabelik, Ph.D. Northwestern; H. A. Peterson, Ph.D. Illinois; S. 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. Thelin, Ph.D. Iowa; C. Wallace, Ph.D. Northwestern.

Assistant Professors: B. King, M.A. Tennessee; A. Kroll, M.A. Tennessee; A. Krilshen, Ph.D. Texas (Dallas).

Instructors: O. King, M.A. Tennessee; T. R. Singleton, M.S. Colorado State.

PI BETA PHI ARROWMOUNT SCHOOL OF ARTS AND CRAFTS

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

Arrowmont, located 40 miles from the UT, Knoxville campus, is a visual arts complex which functions as a regional and national cultural center. In 1954, Pi Beta Phi Fraternity established an affiliation with The University of Tennessee, and with the Department of Art in 1978. The program currently includes spring and summer one and two week media workshops, special weekend conferences, and community classes. Media offerings include: clay, fiber, fabric, metal, wood, stained glass, leather, papier-mache, 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 intend well equipped studios, an campus book and supply store, a large auditorium, art therapy, and resident accommodations. The Arrowmont Gallery presents changing juried, invitational, theme or ready 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, alumni clubs, and individual members.

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Audiology and Speech Pathology

Professors: P. J. Connolly (Head), Ph.D. Iowa; S. Adler, Ph.D. Ohio State; C. W. Aron, Ph.D. Ohio State; D. M. Lipscomb (Adjunct), Ph.D. Northwestern, H. L. Liper, Ph.D. Ohio State; I. V. Nabelik, Ph.D. Northwestern; H. A. Peterson, Ph.D. Illinois; S. Silverstein, Ph.D. Purdue.

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Assistant Professors: B. King, M.A. Tennessee; A. Kroll, M.A. Tennessee; A. Krilshen, Ph.D. Texas (Dallas).

Instructors: O. King, M.A. Tennessee; T. R. Singleton, M.S. Colorado State.
BIOLOGY CONSORTIUM

Director:
P.W. Buck, Ph.D. Microbiology

Basic Faculty:

A B.S. major in Biology may be obtained by completing one of the three concentrations: Cell Biology, Organismal and Systems Biology, or Ecology. Prerequisites for all three concentrations are Biology 150 or 110-120, or Botany 110-120 or 118-128, or Zoology 117-118, and Chemistry 130-130. Consequents are Mathematics 121-122, 151-152 and 141-142 and Physics 221-222 or equivalent.

Concentration in Cell Biology consists of Biology 210, 220, 230, Chemistry 356, 360, 369. Biology 410, either Chemistry 310-319 or Biology 419, and 12 hours of upper-division courses. Upper division courses must be selected from Biology 419, 420, 430, 440, 450, 452; Botany 310-320, 321, 412, 414, 451; Microbiology 310-319, 400, 410, 419, 430-439, 440-449, 446, 449, 451-460. No more than 3 hours of course work may be selected from one department. No more than 3 hours of research courses may be counted toward the major.

Concentration in Organismal and Systems Biology consists of Biology 210, 220, 230, Chemistry 350, 360, 369, and 18 hours of upper-division courses. Upper division courses must be selected from Biology 310, 419, 420, 450; Botany any 300- or 400-level courses; any more than one course from course 305, 306, or 309; Microbiology any 300- or 400-level courses; Zoology any 300- or 400-level courses. At least 6 hours must be selected from the 300-level disciplines. No more than 3 hours of course work may be selected from one department. No more than 3 hours of research courses may be counted toward the major.

Concentration in Ecology consists of Biology 210, 220, 230, 240, 250, 260, 270, 369, one course from among Biology 431, Zoology 450 or 450; and the special topic course 460, Botany 346; and one course from among Zoology, Wildlife and Fisheries Sciences 311, 315, 316, 443, 444, 445. At least 9 hours must be chosen from among these courses. Either Biochemistry 210 or 410, Botany 310-320, 330, 401, 402, 403, 431, one course from among Geography 413, 433, 434; Microbiology 410-470, Zoology 445, 450, 469, 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; Zoology, Any 300- or 400-level courses. (In meeting the upper division minimum requirement, not more than 6 hours may be credited from 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 116-118 or Zoology 117-118) and Chemistry 102-130.

BOTANY

Professors:

Associate Professors:
C. C. Amundson, Ph.D. Colorado; A. S. van der Meer; Ph. D. Karachi; B. C. Mullin, Ph. D. Texas; D. R. Conner, Ph. D. Tennessee; B. E. Wattford (Director of Herbarium) Ph.D. Tennessee.

Lecturers:
K. W. Richardson; Ph. D. Tennessee.

The B.S. major in Biology may be obtained by completing one of the three concentrations: General Program, Organismal Botany, or Cellular and Molecular Biology. Prerequisites for all three concentrations are Biology 110-120 or 118-128 (recommended), or Biology 110-120; and Chemistry 100-130. Conjoint to the General Program is one of the following sequences: Mathematics 115-121 or 141-142 or Physics 150-151 or Geology 101-102, or Chemistry 350-369. Consequents for both of the other concentrations are: Mathematics 141-142 or 151-152; Physics 350-369 and 369.

General Program requirements are: 2 courses from Biology 210-220-230; Botany 210, 220, 230, 301, 303, 1 hour of 371, 1 hour of 481 or 441-442 for additional Biology 3 hours and 5 hours of upper division non Biology courses. WSC 210-220; Microbiology; and Zoology. A minimum of 31 hours is required to complete this major.

Concentration in Organismal Botany are: 2 courses from Biology 210, 220, 230; Botany 311, 320, 330, 331, 3 hour of 371, 1 hour of 481 or 441-442 for additional Biology 3 hours and 5 hours of upper division non Biology courses. WSC 210-220; Microbiology; and Zoology. A minimum of 31 hours is required to complete this major.

Concentration in Ecology are: 2 courses from Biology 210, 220, 230; Botany 311, 320, 330, 331, 3 hour of 371, 1 hour of 481 or 441-442 for additional Biology 3 hours and 5 hours of upper division non Biology courses. WSC 210-220; Microbiology; and Zoology. A minimum of 31 hours is required to complete this major.

Concentration in Organismal Botany are: 2 courses from Biology 210, 220, 230; Botany 311, 320, 330, 331, 3 hour of 371, 1 hour of 481 or 441-442 for additional Biology 3 hours and 5 hours of upper division non Biology courses. WSC 210-220; Microbiology; and Zoology. A minimum of 31 hours is required to complete this major.
study leading to positions in research and college teaching. A student in the B.S. in Chemistry program should, at the earliest opportunity, seek the Liberal Arts Advising Center for assignment of a faculty advisor in the Department of Chemistry. For further information, contact the Head of the Department of Chemistry, 575 Buehler Hall. For information concerning the Cooperative Program in Chemistry, see description of the B.S. program below.

CURRICULUM REQUIREMENTS:

Freshman

Chemistry 120-130 or (preliminary) 121-131 or 128...

Mathematics 141-142

English Composition

Foreign Language (Intermediate level sequence)...

Sophomore

Chemistry 140

Chemistry 250-350

Chemistry 252

Mathematics 241-261

Physics 131-132

Distribution

Junior

Chemistry 310-320

Chemistry 321-329

Chemistry 479-489

Electives

Senior

Chemistry 430

Chemistry 450

Chemistry Electives

Distribution

Electives

Total: 124 hours

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

Placement in General Chemistry Sequences

The sequences which meet all requirements of the College of Liberal Arts are satisfied by taking: Non-U.S. History (6 hours), Social Science (6 hours), Humanities (8 hours), and Upper Level Distribution (3 hours) in either U.S. Studies or Foreign Studies and 3 hours of Capstone Experience. The number of credit hours shown in each year of the curriculum are merely intended on guidelines. It is recommended that a portion of these elective hours be applied to advanced courses in biochemistry, mathematics, physics, or chemistry, in radiological, and polymer engineering.

To be chosen from Chemistry 450, 455, 460, 494, and 495. Chemistry 450 or 490 will also satisfy 9 hours of Upper Level Distribution (Capstone Experience).

B.S. Degree and Chemistry Major

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

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

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 opportunities may involve students seeking the program later than the end of the freshman year. However, planning is highly recommended. 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 prerequisite for upper-division courses are:

Chemistry 120-130 or (preferably) 121-131 or 128...

Mathematics 141-142 or 151-152

Eng...
The B.A. major concentration in Greek consists of 27 hours including 21 hours of Latin language courses numbered above 300, and including 3 hours of Classics 422 (capstone); 6 hours chosen from Classics 221-222, 331, 334, 491. The student majoring in Latin is strongly encouraged to have as background History 310 or 311 before taking the capstone course. The student concentrating in Latin is encouraged to begin or take advanced work in Greek.

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

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

Proficiency Examinations. Students who have acquired a knowledge of Latin through private study or tutoring should request from the Department a proficiency test. A student who earns a grade of B or better in this examination is eligible for credit toward graduation. A student who earns only a grade of C in this examination is required to take Classics 221 to be eligible for credit.

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

The Latin minor consists of 18 hours including 12 Latin hours of Latin language courses numbered above 200, and 6 hours chosen from Classics 221-222, 331, 334. The student minoring in Latin is encouraged to take Classics 422 (capstone).
thecoursesintheDepartmentofEconomics311plus
equivalenthonorscoursesastheprerequisitesto
Economicsconsistof:(1)Economics201or
ineconomicsintheadvisorycollege.
Economicsoftheadvisorycollege.
benefitsandcostsofeconomicgrowth.
ofcurrentissuesofthedaysuchasemploy-
broadliberaleducationwiththerigorousstudy
intheadvisorycollege.
Seefacultylistingintheadvisorycollege.
voluntarylocallyasspectrumofnaturalhabitatsandconsequentbiologicaldiversitythatistrulyunique.Inaddition,facultyresearchprograms
provideopportunitiesforstudentresearch
positionsinindustryorgovernment.The En-
vironmentalSciencesDivisionoftheOak...Oakland;S.C.Noduin,Ph.D.CPSU;J.A.
EcologyProgramFaculty
C.R.B.Boake,Ph.D.Zoology;P.J.Muhammad,
Tennessee;A.Danielsen,M.A.Purdue;L.
Instructors:
Zomchick,Ph.D.Columbia.
AssistantProfessors:
M.A.Stanford.
AssociateProfessors:
M.A.R.N.L.;J.L.Wilson,Ph.D.Forestry;J.P.
Witherspoon,Ph.D.O.R.N.L.;F.W.Woods,Ph.D.
Forestry.
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Forestry.
Professors:
C.R.B.Boake,Zoology;P.J.Muhammad,
Consists of Geography 310, 320, 330, and is a prerequisite to a minor in Geography, which science sequence other than geography, may petition for at least nine of the 18 additional hours that must be at the 400 level.

Geography courses at the 300 and 400 levels include a minor in geography for a career in geology. A major in geography includes Geology 310, 320, 330, 340, 370, 440, 450, 455, 460, 470, and 480, and 6 hours of geology courses numbered 300 or above. Geography 440 (field camp) is strongly recommended for students planning a career in geology.

Minor requirements consist of: Geology 101-102; Chemistry 120-125; Mathematics 141-142; three semesters from Physics 131-132; Biology 110-120. This sequence is a two-semester sequence in the area plus a single semester in the other. The single semester may be satisfied by high school course work in that area.

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. Emphasis in the major course work should be on courses necessary to satisfy the liberal arts college distribution requirements are specified. Required coursework includes: Geology 310, 330, 340, 370, 440, 450, 455, 460, 470 and 480; 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, 360, 530, 532 or Environmental Engineering 533; Plant and Soil Science 219, English 459, and Speech 240. Courses from the College’s approved lists for English, History, Mathematics, and Science are included. Required coursework includes: Geology 310, 320, 330, 340, and 360; and an additional 9 hours of upper division work in general education, including at least three hours at the 400 level.

Students who have successfully completed geography 310 and 320 are considered to have satisfied this course requirement in the geography major or minor.
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 200, which normally include German 201-202 and at least 12 additional hours of courses numbered above 300 (excluding 331-332 and courses in English translation). Students interested in the Language and World Business program should contact the program offices for more information.  

Minor in Russian: Russian 201-202 is a prerequisite to the minor. In the minor, Russian course shall consist of at least 18 hours of Russian courses, including Russian 301-302, 311-312, 401-402, 431-432, and 5 hours from Russian 221, 222, 321, 322, 326, 371, 372, or other courses numbered above 400. It is recommended that majors also take Russian History 340-341 and 6 hours of electives. Minor in Slavic Languages for help in selecting relevant 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 Religion Studies.

HISTORY

Professors: P. H. Bergeron, Ph.D. Vandervell; R.D. Buhite, Ph.D. Michigan State; E.C. Chmielinkski, Ph.D. Harvard; J.C. Cobb, Ph.D. Harvard; J.E. Denhardt, Ph.D. Georgia; J.R. Finger, Ph.D. Washington; L.P. Gifford (Benwood Distinguished Service Professor and Emeritus); Ph.D. Harvard; Y.P. Hao (Lindsay Young Professor); Ph.D. Hartford; A.G. Haas, Ph.D. Chicago; R.W. Hanks (Emeritus); Ph.D. California-Davis; C.O. Jackson (Associate Dean, Liberal Arts College), Ph.D. Emory; M.M. Klein (Alumni Distinguished Service Professor); Lindsay Young Professor and Emeritus); Ph.D. Columbia; M.J. McDonald, Ph.D. Pennsylvania; L.A. Ratner (Dean, Liberal Arts); Ph.D. Cornell; W.B. Wholsor, Ph.D. Virginia.

Associate Professors: S.D. Becker, Ph.D. Case Western Reserve; J.D. Bing, Ph.D. Indiana; J. Boested, Ph.D. Harvard; W.F. Farms, Ph.D. Harvard; C.W. Johnson, Ph.D. Michigan; G.O. Fleming, Ph.D. Duke; J. Muldewy (Acting Head); Ph.D. Yale; F. Picken; Ph.D. Vanderbilt; J.G. Utley, Ph.D. Illinois.

Assistant Professors: H.P. Drummond, Ph.D. Chicago; T.A. Dacon, Ph.D. Wisconsin; P.R. Guest, Ph.D. Michigan; B.L. Plummer, Ph.D. Mornings; W. Waksman, Ph.D. California-Davis.

Director: Dr. Cynthia G. Fleming (and Afro-American Studies). The department welcomes all majors and non-majors. An honors major requires successful completion of one special course at the junior level (301), and a senior thesis (401-402). The honors major consists of 30 hours, including 9 hours above 400. It is recommended that majors also take Russian History 340-341 and 6 hours of electives. Minor in Slavic Languages for help in selecting relevant courses, including Russian 301-302; 311-312; and 6 hours from Russian 221-222 or other Russian courses numbered above 300.

INTERDISCIPLINARY PROGRAMS
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 credit. Majors are required to take AAS 431, preferably in the senior year, and an approval of 6 credits in AAS 492 and 493 combined are required toward the major. In planning their program majors must include courses from at least 2 other departments which crosscut courses with Afro-American Studies in addition to the AAS core course offerings.

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 minors minors must include courses from at least 2 other departments which crosscut courses with Afro-American Studies in addition to the AAS core course offerings.

AMERICAN STUDIES

Chair: Dr. George B. Hutchinson (English)

Major concentration: English 321 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 from one of the following areas: Anthropology, Economics, political science, or sociology. In consultation with an American Studies advisor, from a list approved by the program, in such a way that at least 3 courses help the student achieve a focus within the field. One course in the student's curriculum must specifically focus upon one or more American ethnic minority cultures. An additional 3-4 hours of American Studies 493 (Independent Study) are recommended for minors in their senior year. A list of approved elective courses is available from the chairperson of the program.

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

ANCIENT MEDITERRANEAN CIVILIZATIONS

Chair: Dr. E. D. Tandy (Classics)

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

The major concentration in Ancient Mediterranean Civilizations consists of Classics 381 and 382. Hours must be taken 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 Studies: Religious Studies 311, 312, 320; b) Greek Culture Classics 201, 202, 232, 233, 253, 331, 334, 383; History 313; Philosophy 120, 320; Political Science 475; Religious Studies 341, 342, 395; and c) Roman Culture: Classics 223, 225, 234, 335, 400; History 311; Philosophy 120, 320; Political Science 475; Religious Studies 291, 292, 396, 416.

A minor in Ancient Mediterranean Civilizations consists of 18 hours, including at least two of the three core courses (Classics 381, 382; History 366). No more than nine of the remaining hours can come from one division. Courts of variable content, topics courses, reading and research topics, and foreign study in the Departments of Art, Classics, History, Philosophy, or Religious Studies can be applied to the three divisions as approved.

Students are encouraged to satisfy the foreign language requirement with Greek, Latin, or Classical Hebrew.

ASIAN STUDIES

Chair: Dr. Walter C. Naile (Economics)

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 (a) Ancient Near Eastern Areas: Religious Studies 311, 312, 320; (b) Asian Areas: Economics 326, Political Science 320, Philosophy 326; (c) Roman Culture: Classics 321, 322, 326, 416, (d) Medieval Areas: Classics 381, 382, 432, 433, 434, 492, 493.

A minor in Asian Studies: AAS courses are offered not by three different participating departments: Classics, Economics, and Religion. 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 must take a working knowledge of a second foreign language if they hope to pursue comparative literature on the graduate level.

 Minor in comparative literature consists of six upper-division courses (Associate 201 and 401, 202 and 402, and one of the three following departments: Classics, English, or Slavic Languages. Certain courses in Philosophy and Theater Studies 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 language requirement.

LATIN-AMERICAN STUDIES

Chair: Dr. Michael H. Handelsman (Spanish)

The major concentration consists of two optional tracks: (1) General Studies or (2) Brazilian Studies. Each program requires 27 credit hours including Latin American Studies 381 and 402. (a) General Studies includes Latin American Studies 401 and 402, and three hours of an approved Spanish or Portuguese course, and either 300 or 400 level in either the 300 or 400 level. In addition to the core courses, the General Studies track will consist of 15 hours selected from courses offered by three different participating departments.
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 traditions. This concentration is designed for students who plan to continue their studies in graduate school. In addition, students planning to go on to graduate school are strongly advised to supplement their courses in the history of art and architecture. A concentration in Medieval Studies focuses upon the culture and society of the collapse of the Roman Empire to the 16th century. Students must complete a three-year foreign language study (literature) which satisfies the Foreign Language Studies curriculum. Additional courses in the history of art and architecture are essential for those who plan to continue in medieval studies in graduate school. The major concentrations are the completion of a third year of modern language study (literature) which satisfies the Foreign Language Studies curriculum. Recommended prerequisites include: Russian 201-202 and Russian Culture 371-372.
See Interdisciplinary Programs.

See Classics.

LATIN

See Classics.

ITALIAN

See Romance Languages.

JAPANESE

See Interdisciplinary Programs (Asian Studies).

LATIN American Studies

See Interdisciplinary Programs.

LINGUISTICS

See Interdisciplinary Programs.

MATHMATICS

Professors: J.B. Conway (Head), Ph.D. Louisina State; R.P. Doss, Ph.D. Washington, D.C.; H. Gross, Ph.D. Wisconsin; N. Alcocko, Ph.D. Brown, V. Alexander, (Emeritus) Delaware, D.F. Anderson, Ph.D. Chicago; G.A. Koster, Ph.D. Cornell; J.D. Bradley, Ph.D. Iowa; J.H. Conniff, Ph.D. Louisiana State; C.E. Clark, Ph.D. Louisiana State; R.D. Davis, Ph.D. Wisconsin; D.J. Dewart, Ph.D. Maryland, D.E. Dobbs, Ph.D. Cornell; G. Dyka, Ph.D. Warms (Poland); E.D. Eaves (Emeritus); T.D. Erickson, Ph.D. Finland; K.D. Hallow, Ph.D. Missouri; D.B. Hinton, Ph.D. Tennessee; D.M. Tomaszewski, A.E. Houseknecht (Emeritus); Ph.D. Chicago; L.S. Husch, Ph.D. Florida State; K. Johansine, Ph.D. Bevleid, West Germany; G.S. Jordan, Ph.D. Wisconsin, B.A. Kupenot (Space Institute, Tuluimo). Ph.D. Massachusetts Institute Technology; H.T. Mathews, Ph.D. Tulane; R.M. McConney, Ph.D. Duke; D.K. Miller (Emeritus); Ph.D. Michigan; B.S. Rajput, Ph.D. Illinois; K.G. Reddy, Ph.D. Space Institute, Tullahoma, Ph.D. Inden Institute of Technology, W. P. Schaefer, Ph.D. Maryland; M.S. Sery, Ph.D. Cornell; K. Sore, Ph.D. Oregon State; F.W. Stollmam (Emeritus); Ph.D. Giessen (Germany); K.R. Staphanowski, Ph.D. Wisconsin; E. Wachpress, Ph.D. Remetalor Polytechnic Institute; W.R. Wade, Ph.D. California (Riverside); C.G. Wagner, Ph.D. Duke.

Associate Professors: I.J. Gross, Ph.D. North Carolina; O. Kaneshke, Ph.D. Harvard; R. Krimbol (Space Institute, Tuluimo); Ph.D. Ohio State; V. Kuo, Ph.D. Cincinnati; S. Lemann, Ph.D. Kentuck; S. Maly, Ph.D. Fundament; Ph.D. Marquette, Ph.D. Wroclaw University, W. H. Rohe, Ph.D. Wisconsin; R. P. Soni, Ph.D. California (Berkeley); K.B. Sore (Space Institute, Tullahoma); Ph.D. Texas; K.D. Sore, Ph.D. Oregon State; C. Sundberg, Ph.D. Kentucky; S. Tullahoma, (Emeritus), Ph.D. Texas; H. F. Stollmam, Ph.D. California (Riverside); C.G. Wagner, Ph.D. Duke.

MEDICINAL STUDIES

See Interdisciplinary Programs.

MEDICAL BIOLOGY/ MEMORIAL RESEARCH CENTER

The Department of Medical Biology of The University of Tennessee was formed from the faculty of the Knoxville Unit when the University Memorial Research Center and Institute, Knoxville 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 in the B.S. degree and undergraduate levels. Elective courses are also available to students in the College of Medical Sciences.

The faculty of the College of Veterinary Medicine offers an advanced program leading to M.S. and Ph.D. degrees in Comparative and Experimental Medicine. This 12-semester advanced degree can be offered for research in the department by arrangement with other Life Sciences departments or the University.

MICROBIOLOGY

Professors: Doug C. Savage (Head), Ph.D. California (Berkeley); A. Brown (Emeritus), Ph.D. (Emeritus), Ph.D. Indiana; P. W. Schaefer, (Emeritus), Ph.D. Tennessee; A. S. Householder (Emeritus), Ph.D. Texas; H. F. Stollmam, Ph.D. Indiana; T. G. Dobbs, Ph.D. Cornell; G. E. Albert (Emeritus), Ph.D. Wisconsin, N. J. B. Conway (Head), Ph.D. Louisiana State; C. E. Clark, Ph.D. Louisiana State; R. D. Davis, Ph.D. Wisconsin; D. J. Dewart, Ph.D. Maryland, D. E. Dobbs, Ph.D. Cornell; G. Dyka, Ph.D. Warsaw (Poland); E. D. Eaves (Emeritus); T. D. Erickson, Ph.D. Finland; K. D. Hallow, Ph.D. Missouri; D. B. Hinton, Ph.D. Tennessee; D. M. Tomaszewski, A. E. Houseknecht (Emeritus); Ph.D. Chicago; L. S. Husch, Ph.D. Florida State; K. Johansine, Ph.D. Bevleid, West Germany; G. S. Jordan, Ph.D. Wisconsin, B. A. Kupenot (Space Institute, Tulummo). Ph.D. Massachusetts Institute Technology; H. T. Mathews, Ph.D. Tulane; R. M. McConney, Ph.D. Duke; D. K. Miller (Emeritus); Ph.D. Michigan; B. S. Rajput, Ph.D. Illinois; K. G. Reddy, Ph.D. Space Institute, Tullahoma, Ph.D. Inden Institute of Technology, W. P. Schaefer, Ph.D. Maryland; M. S. Sery, Ph.D. Cornell; K. Sore, Ph.D. Oregon State; F. W. Stollmam (Emeritus); Ph.D. Giessen (Germany); K. R. Staphanowski, Ph.D. Wisconsin; E. Wachpress, Ph.D. Remetalor Polytechnic Institute; W. R. Wade, Ph.D. California (Riverside); C. G. Wagner, Ph.D. Duke.

Associate Professors: I. J. Gross, Ph.D. North Carolina; O. Kaneshke, Ph.D. Harvard; R. Krimbol (Space Institute, Tuluimo); Ph.D. Ohio State; V. Kuo, Ph.D. Cincinnati; S. Lemann, Ph.D. Kentuck; S. Maly, Ph.D. Fundament; Ph.D. Marquette, Ph.D. Wroclaw University, W. H. Rohe, Ph.D. Wisconsin; R. P. Soni, Ph.D. California (Berkeley); K. B. Sore (Space Institute, Tullahoma); Ph.D. Texas; K. D. Sore, Ph.D. Oregon State; C. Sundberg, Ph.D. Kentucky; S. Tullahoma, (Emeritus), Ph.D. Texas; H. F. Stollmam, Ph.D. California (Riverside); C. G. Wagner, Ph.D. Duke.


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

All entering freshman and all other students who have not completed a complete college level mathematics course, except students who have received AP calculus credit, must take the UT, Knoxvilie mathematics placement exam before enrolling in a mathematics course. Placement in the appropriate course will be determined by the score on the exam. Ordinarily a student will not be allowed to enroll in a course at a level above that determined by his or her placement exam score. In exceptional circumstances, students will have the right to appeal their placement to the Mathematics Department. The exam will be administered during summer orientation and at designated times during the Fall, Spring, and Summer registrations.

B.S. Major: Mathematics 141-142 (or the Honors version, 147-148) is prerequisite to a major in Mathematics. Majors must also have computer programming skills sufficient to take 371. Students without other computing experience should take Computer Science 150, 151, or 152. The courses required for the major are: 221 Discreete Mathematics (3); 231 Differential Equations (3); 241 Calculus III (4); 247 Honors Calculus (III) (4); 251 Matrix Algebra I (3); 257 Honors Matrix Algebra II (3); 351 Probability I (3); 351 Analysis I (3); 351 Algebra I (3); 371 Numerical Algorithms I (3); and nine additional hours selected from Mathematics and Mathematics courses numbered 421 through 472.

Honors B.S. Major: Candidates for an honors degree in Mathematics must fulfill all of the requirements for the B.S. degree in Mathematics, but take 12 (rather than 9) hours in Mathematics and Mathematics courses numbered 421 through 472. The grade point average computed on the 24 hours of Mathematics courses consisting of 303, 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 - High Honors; GPA at least 3.8 - Highest Honors. Students with credit for more than 12 hours in Mathematics and Mathematics courses numbered 421 through 472 may designate the 12 hours to be included in the above average. Minor Mathematics 141-142 (or 147-148) is prerequisite to a minor in Mathematics. A minor in Mathematics consists of (1) 241 and 251 (2) 221 or 231; and (3) nine additional hours in Mathematics courses numbered 300 or higher. The grade in each of the above courses must be at least C.

ITALIAN

See Romance Languages.

JAPANESE

See Interdisciplinary Programs: Asian Studies.

LATIN

See Classics.

LATIN American Studies

See Interdisciplinary Programs.

LINGUISTICS

See Interdisciplinary Programs.

**ASSISTANT PROFESSORS:**


Bachelor of Music Degree: The Department of Music offers courses leading to the Bachelor of Music degree with concentrations in music theory, composition, electronic music, music history and literature, and applied music. Students may major in music, design a minor in music, or have a strong interest in music, but desire a comprehensive liberal studies program. Bachelor of Arts Major in Music Degree Students majoring in music must have a strong interest in music, but desire a comprehensive liberal studies program. Bachelor of Arts Degree: The Department of Music offers curricula leading to the Bachelor of Arts degree with a major in music, designed for those students who have a strong interest in music, but desire a comprehensive liberal studies program. Bachelor of Music Degree: The Bachelor of Music degree is awarded for successful completion of an academic program of 120-150 semester hours of college credit. Bachelor of Music Degree: The Bachelor of Music degree is awarded for successful completion of an academic program of 120-150 semester hours of college credit.

**ASSOCIATE PROFESSORS:**


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

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<tr>
<td>Music Voice 110-120 or Music Performance 150</td>
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<td>Music Education 310-320</td>
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### B.M. Curriculum in Composition

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### B.M. Curriculum in Sacred Music (Voice)

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<td>Music Voice 110-120 or Music Performance 150</td>
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### B.M. Curriculum in Electronic Music

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| Total: 126 hours |

### Humanities-Arts (Non-music), Literature, Philosophical Perspectives, Interdisciplinary Studies

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<th>Hours Credit</th>
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<tbody>
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<td>Music Performance 190</td>
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<td>Music Ensemble</td>
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<tr>
<td>Electives</td>
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<td>Music General 200</td>
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### Humanities-Arts (Non-music), Literature, Philosophical Perspectives or Interdisciplinary Studies

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B.M. Curriculum in Multiple Woodwind Instruments

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B.M. Curriculum in Music History and Literature

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B.M. Curriculum in Music Theory

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B.M. Curriculum in Piano

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

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<tr>
<td>B.M. Curriculum in Woodwind, Brass and Percussion Instruments</td>
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</table>

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


Assistant Professors: H.P. Harmel, Ph.D. Georgia.

Major Prerequisite: Three hours of logic, normally 130 or 135. Requirements: 24 hours of courses numbered 300 or above, including 3 hours of ethics, normally 240 or 440, and six hours in the history of philosophy, three in ancient, normally 320, and three in modern, normally 304. Majors are required to discuss their programs with a member of the Philosophy faculty.

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

PHYSICS AND ASTRONOMY

Professors: W.M. Bugg (Head), Ph.D. Tennessee; C.R. Bingham, Ph.D. Michigan; W.E. Blais, Ph.D. Michigan; M.A. Breeses (on leave), Ph.D. Michigan; F.M. Bugg, Ph.D. Tennessee; J. Burgtoeder, Ph.D. frania University; C.A. Callcott, Ph.D. Purdue; R.W. Childers, Ph.D. Vanderbilt; L.G. Christopou, Ph.D. Manchester (England); F.E. Cioso (Distinguished Scientist), On leave, Ph.D. Oxford (England); E.W. Chu, Ph.D. California; T.C. Collins, Ph.D. Florida; G.A. Condor, Ph.D. Illinois; W.E. Deeds (Emeritus), Ph.D. Ohio State; K.E. DuUick, Ph.D. Tennessee; K. Fox, Ph.D. Michigan; N.M. Gellert (Emeritus), Ph.D. Ohio State; S. Gastronou, Ph.D. Manchester (England); M.W. Gwarty, Ph.D. Tennessee; E.G. Harris, Ph.D. California.

Associate Professors: M.J. Ishvani, Ph.D. Oregon; D.E. Oster, Ph.D. Massachusetts Institute of Technology; T. Ferrali, Ph.D. Connecticut; T. Haman, Ph.D. Rutgers; W.R. Low, Ph.D. Michigan; W.M. Muthuvel (Emeritus) St. Thomas; S.Y. Shih, Ph.D. Maryland; S.P. Sorrentino, Ph.D. Copenagen (Denmark).

Research Assistants: G. Calkin, Ph.D. Tennessee; S.J. Daunt, Ph.D. Queens (Kingston, Ontario, Canada); R. Hamulak, Ph.D. Ohio State; R. Imanishi (UTSI); R.J. Lees, Ph.D. Tennessee; A.J. Sanders, Ph.D. Tuite.

Lecturers: R.C. Forrester, B.A. Emory College; T. Riedger, M.S. Vanderbilt.

PHYSICS

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

Prerequisites: The major consists of Physics 131-132 or 137-138, Mathematics 141-142.

The major consists of: Physics 231 or 232 or 237 or 238; Mathematics 231 and 241; Physics 311 (students intending to pursue graduate study in Physics should also take 312 and 421 as electives); Physics 321, Physics 431-432; Physics 411-412 (341 and 342 may be substituted for students who do not intend to pursue graduate studies); 461-462 or 460-461; 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.

RESERSETE PHYSICS INSTITUTE, G&D. MAHON (DISTINGUISHED SCIENTIST), Ph.D. UNIVERSITY OF CALIFORNIA (BERKELEY); A.A. MAZON (UTSI); Ph.D. Tennesee; W.K. McGorry (UTSI); Ph.D. Tennessee; A.H. Nelson (Emeritus); Ph.D. Michigan; F.E. Oberharn, Jr., Ph.D. Pittsburgh; L.R. Paer, Ph.D. Tennessee; D.J. Pegg, Ph.D. New Hampshire; J.J. Quinn, Ph.D. Missouri; L.J. Riedger, Ph.D. Vanderbilt; R.H. Ritchie, Ph.D. Tennessee; W.R. Rank (Emeritus); M.S. Tennessee; L.A. Still (Chancellor's Research Scholar); Ph.D. Chicago; C.C. Stiel, Ph.D. Cornell; P.H. Stetson, Ph.D. Massachusetts Institute of Technology; M.R. Straycr, Ph.D. Massachusetts Institute of Technology; J.R. Thompson, Ph.D. Duke; J.D. Thompson, Ph.D. Illinois; J.W. White (Emeritus), Ph.D. North Carolina.

Associate Professors: J.M. Martin, Ph.D. Duke; B.E. Sklar, Ph.D. Massachusetts Institute of Technology; T. Ferrali, Ph.D. Connecticut; T. Haman, Ph.D. Rutgers; W.R. Low, Ph.D. Michigan; W.M. Muthuvel (Emeritus) St. Thomas; S.Y. Shih, Ph.D. Maryland; S.P. Sorrentino, Ph.D. Copenhagen (Denmark).

Assistant Professors: D. Carlisle, Ph.D. Tennessee; S.J. Daunt, Ph.D. Queens (Kingston, Ontario, Canada); R. Hamulak, Ph.D. Ohio State; R. Imanishi (UTSI); R.J. Lees, Ph.D. Tennessee; A.J. Sanders, Ph.D. Tuite.

Research Assistant Professor: Yung-Cai Du, Ph.D. Beijing; D.L. McCorkle, Ph.D. Tennessee.

Assistant Professor: R.C. Fairman, Jr., B.A. Earlham College; T. Garner, Ph.D. Alabama.

Lecturers: S. Riedinger, M.S. Vanderbilt; R.C. Fairman, Jr., B.A. Earlham College; T. Garner, Ph.D. Alabama.

RUTGERS; R.W. Childers, Ph.D. Vanderbilt; L.G. Tradition.

POLITICAL SCIENCE


Assistant Professors: R.B. Cunningham, Ph.D. Indiana; G.C. Evans, Ph.D. Columbia; P.K. Freeland, Ph.D. Wisconsin; M.M. Grant (Head), Ph.D. Missouri State; R.L. Peterson, Ph.D. Yale; J.M. Scheib, Ph.D. Florida; T.R. Nelson, Ph.D. Texas.

Research Associate Professors: D.M. Potter, Ph.D. Tennessee; E. Richardson, Ph.D. Texas.

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

Total:124-128 hours

See Graduate School.

Total: 124-128 hours

PHILOSOPHY

ORGANIZATIONAL PROGRAM

PHILOSOPHY

ORGANIZATIONAL PROGRAM

PHILOSOPHY

See Graduate School.

Minor: A minor in physics shall consist of courses numbered 200 or above. 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 PowerPoint.

Associate Professors: M.J. Ishvani, Ph.D. Oregon; D.E. Oster, Ph.D. Michigan; W.E. Blais, Ph.D. Michigan; M.A. Breeses (on leave), Ph.D. Michigan; F.M. Bugg, Ph.D. Tennessee; J. Burgtoeder, Ph.D. frania University; C.A. Callcott, Ph.D. Purdue; R.W. Childers, Ph.D. Vanderbilt; L.G. Christopou, Ph.D. Manchester (England); F.E. Cioso (Distinguished Scientist), On leave, Ph.D. Oxford (England); E.W. Chu, Ph.D. California; T.C. Collins, Ph.D. Florida; G.A. Condor, Ph.D. Illinois; W.E. Deeds (Emeritus), Ph.D. Ohio State; K.E. DuUick, Ph.D. Tennessee; K. Fox, Ph.D. Michigan; N.M. Gellert (Emeritus), Ph.D. Ohio State; S. Gastronou, Ph.D. Manchester (England); M.W. Gwarty, Ph.D. Tennessee; E.G. Harris, Ph.D. California.

Associate Professors: M.J. Ishvani, Ph.D. Oregon; D.E. Oster, Ph.D. Michigan; W.E. Blais, Ph.D. Michigan; M.A. Breeses (on leave), Ph.D. Michigan; F.M. Bugg, Ph.D. Tennessee; J. Burgtoeder, Ph.D. frania University; C.A. Callcott, Ph.D. Purdue; R.W. Childers, Ph.D. Vanderbilt; L.G. Christopou, Ph.D. Manchester (England); F.E. Cioso (Distinguished Scientist), On leave, Ph.D. Oxford (England); E.W. Chu, Ph.D. California; T.C. Collins, Ph.D. Florida; G.A. Condor, Ph.D. Illinois; W.E. Deeds (Emeritus), Ph.D. Ohio State; K.E. DuUick, Ph.D. Tennessee; K. Fox, Ph.D. Michigan; N.M. Gellert (Emeritus), Ph.D. Ohio State; S. Gastronou, Ph.D. Manchester (England); M.W. Gwarty, Ph.D. Tennessee; E.G. Harris, Ph.D. California.
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, 430, 440, 445, 450, 461, 470, 480, 490. Minor: Consists of 110 or equivalent; 210 or 220; and 12 additional upper-division hours.

RELIGIOUS STUDIES

Major: Psychology 110 or equivalent and Biology 110-120 or Zoology 210-220 are prerequisite to a major consisting of 30 credit hours: (1) Psychology 210 or 211; (2) Three courses chosen from 300, 310, 320, 330, 360, and 470; (3) At least 8 credit hours in research, quantitative methods, and their application covering one of Statistics 201, Mathematics 115, or equivalent); (4) At least 2 credit hours chosen from 369, 450, 459, 469, 489, and 499; (4) Two courses chosen from 400, 410, 420, 430, 440, 450, 461, 470, 480, 486, and 490. Two Psychology electives including at least one at the 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 400 level religion courses for both majors and non-majors unless otherwise specified in an agreement with students who obtained instructor consent. At least 6 credit hours in 300 level courses are ordinarily prerequisite for 400 course. Consult the course description for each course for specific prerequisites or exceptions.

PSYCHOLOGY

Professors: Warren H. Jones (Head), Ph.D. Oklahoma State University; G.M. Burghardt, Ph.D. Chicago; A.G. Bursiel, Ph.D. Chicago; W.H. Calhoun, Ph.D. California (Berkeley); C.P. Coley, Ph.D. Kansas; J.H. Fine (Emeritus); Ph.D. Syntaxe; R. Fowler, Ph.D. Pennsylvania State; S.J. Hanway (On Leave); Ph.D. Johns Hopkins; I. Handler, Ph.D. Michigan State; J.E. Laker, Ph.D. North Carolina; K.A. Laker, Ph.D. North Carolina; J.W. Loombeury, Ph.D. Michigan State; J.F. Luban, Ph.D. Chicago; J.G. Malins, Ph.D. Duke; K.R. Newton (Emeritus); Ph.D. Tennesssee; R.H. Polks (Hinkledistinguished Service Professor), Ph.D. Michigan; F. Sanjana, Ph.D. Korea; R.A. Saudargue, Ph.D. Indiana State; R.S. Shailer (Emeritus), Ph.D. Tennesssee; E.D. Sunderm, Ph.D. Utah; C.B. Trave, Ph.D. California (Davis); R.O. Walker, Ph.D. Washington; J.A. Wilborn, Ph.D. Syntaxe.

Associate Professors: J.M. Barlow, Ph.D. Tennesssee; M.G. Johnson, Ph.D. Johns Hopkins; M. Kedome, Ph.D. Yale; W.G. Minger, J.D. Ph.D. Tennesssee; M.R. Nash, Ph.D. Ohio.

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


Associate Professors: J.L. Fitzgerald, Ph.D. Chicago; R.W. Gayhne, Ph.D. Washington; R.J.J. Hufch, Ph.D. Aberdeen; J.D. Hodges, Ph.D. Chicago; M.L. Connberg, Ph.D. Honolulu.

Assistant Professor: L.C. Tinkini, Ph.D. Howard.

Professor: L.M. Tobler, Ph.D. Vanderbilt.

Major: The basic concentration is designed to assure that students obtain skills to analyze and interpret religious phenomena in different cultures and in different historical periods, including how sacred texts and traditions, and interpretations of them are affected by religious and cultural contexts, and how religious, moral, and ethical issues are influenced by these contexts. The basic concentration consists of at least 24 hours of religious studies courses at the 300 level or above, including 300, one course from each of the first five categories listed below, and two courses from category six: (1) The history of western religion, 311, 321, or 322; (2) religion and culture in South Asia, 374 or 376; (3) religion and culture in East Asia, 373 or 374; (4) religion and culture in the United States, 351 or 352; (5) critical thinking about religion, 301, 305, 342, or 371; and (6) four courses from any other topic, including 300 level courses. At least one of these courses shall not be related to another language course. As an alternative to the basic concentration, a student-initiated concentration is available for students with specific educational needs, such as those who intend to enter a graduate or professional school (such as law or medicine) which recommends a specific course of study. Each student must consult with a member of Religious Studies to assist a student to formulate a major consisting of at least 24 credit hours at the 300 level or above, including 300 and 499. Up to 3 credit 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 office, who will submit any specific proposal to the faculty in religious studies for approval. Further details on the major and on departmental courses are available at the department office, located in 501 McCune 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 minor in religious studies choose their program with a member of the department faculty.

RELIGIOUS STUDIES

Major: The basic concentration is designed to assure that students obtain skills to analyze and interpret religious phenomena in different cultures and in different historical periods, including how sacred texts and traditions, and interpretations of them are affected by religious and cultural contexts, and how religious, moral, and ethical issues are influenced by these contexts. The basic concentration consists of at least 24 hours of religious studies courses at the 300 or 400 levels. Further details on the major and on departmental courses are available at the department office, located in 501 McCune 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 minor in religious studies choose their program with a member of the department faculty.

ROSENCOLLE OF LIBERAL ARTS

Romance Languages

Professors: John B. Romaine (Head), Ph.D. Vanderbilt; P.E. Barrette, Ph.D. California (Berkeley); P. Brady, Ph.D. Universite de Paris (Sorbonne); G. Calabrese, Ph.D. Penn State; N.W. Cobbe, Ph.D. Tulane; J.C. Elliott (Emeritus), M.A. Illinois; C. Harlandson, Ph.D. Florida, W.H. Hallin, Jr., Ph.D. Florida State; T.B. Irving (Emeritus), Ph.D. Princeton; F.A. Martinez (Emeritus), Ph.D. Columbia; C.R.M. Pinney (Emeritus), Ph.D. California (Berkeley); M. Petroskova, Ph.D. Kent State; O. Rivera- Robles, Ph.D. California, A. Mavarez-Bigio, Ph.D. North Carolina; A.H. Wallace, Ph.D. North Carolina; Y.M. Wathorn, Ph.D. North Carolina.

Associate Professors: E.J. Campton, Ph.D. Yale; R.M. DeRycke, Ph.D. Chicago; W.D. Folsom, Ph.D. Tufts; D.M. Dupuis, Ph.D. Kansas; C.K. Dunstan, Ph.D. Illinois; R.D. Levy, Ph.D. Kentucky.

Associate Professors: F.R. Bingham, Ph.D. Washington; C. Cazanave, Ph.D. Penn State; Charlotte G. Cox (Emeritus), Ph.D. University of California; G. Holmhiid, Ph.D. Wisconsin; D.M. Klima, Ph.D. University of California; I.M. Milligan, Ph.D. Texas (Austin); A. Rodriguez, Ph.D. Brown; H. Sashke, Ph.D. Cornell University; P. Williams (Emeritus), M.A. Tutto, Dolly Young, Ph.D. Texas.


French Minor: Courses in courses of 311-312, 313-314, 430-431, 440-441, 442-443, 444-445; Literature concentration students must also have 6 hours of Literature at the 400 level; 3 hours of which must be bitches 410, 411, 412, 413, 414, or 415; 3 hours of language oriented on correspondents, 3 hours on correspondents. Language concentration students must also have 6 hours of literature at the 300 or 400 levels.

French Minor: The minor consists of 18 hours in courses numbered 311 and above disc.
italian major: Courses of 27 hours in courses numbered 311 and above. All majors must take 311, 312, 314, 342, and 401. the following are required: 311, 312, 431, 422, 459-460. Students must also have a minimum of 3 years of civilization, either 431 or 471: a minimum of 6 hours of co-communication and composition from: 323, 324, 423, 424; and a maximum of 6 hours of literature from: 432, 433, 435, 426, 450, 472, 473, 474, 477. Majors are encouraged to take as many hours as possible, especially the seniors, 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: 333, 334, 423, 424; and one course in the selected field of concentration. Admission is by permission of the department. Courses which are the equivalents of the foregoing may be substituted with the consent of the department. Courses in Spanish literature in English translation, however, may not be counted as upper division.

a minor in major in french or spanish with a concentration in business: Students who wish to prepare for careers in international business may complete a major in either French or Spanish, a professional emphasis in either International Business, Logistics and Transportation, and a minor concentration in this area. Courses are chosen among conversation and composition, civilization, phonetics, or literature. Students pursuing a minor are strongly advised to consult with a department advisor.

concentration: Courses which are the equivalents of the foregoing may be substituted with the consent of the department. Courses in Spanish literature in English translation, however, may not be counted as upper division.

a spanish major: Degree consists of 32 hours. The following are required: French 199, 311, 312, 313, 341, 345, 400, 403, 410, 491, and 492 of 493 or 494. (2) Spanish major consists of 32 hours. The following are required: Spanish 199, 311, 312, 325, 425, 427, 428, 490, 491, and any 400-level literature course.

b) Professional emphasis: (1) International Business: Students at the sophomore level may complete a major in either French or Spanish, a professional emphasis in either International Business, Logistics and Transportation, and a minor concentration in this area. Admission is by permission of the department. Courses which are the equivalents of the foregoing may be substituted with the consent of the department. Courses in Spanish literature in English translation, however, may not be counted as upper division.

instructor: Dr. Harry C. Jacobson


associate professors: Dr. D. C. Harris, M.A. Tennessee.

minor: Majors are required to the major are six lower division hours in sociological science which must include either 101 or 110, followed by 300. The major consists of 24 upper-division hours in sociological science and must include 321 and 331. Students must complete these two courses by the end of their junior year.

consultation in international justice: All prerequisites and upper-division courses required for general majors are required for this concentration. In addition, the concentration consists of 10 hours of upper-division sociology core courses: 350, 351, 481, 489, 492 (3), and one course selected in consultation with advisor.

minor: The minor consists of 12 upper-division hours in sociological science and must include 321 and 331. Prerequisites to the minor are six lower-division hours in sociological science which must include: 203.

e) Minor Concentration in Environment and Society: All prerequisites required for the major are required for this concentration. An additional prerequisite is Biology 230 (or a foreign language background approved by the Department of Sociology). The Concentration in Environment and Society consists of 351 (Sociological Theory) and 352 (Sociological Research) and 12 hours of upper-division sociology core courses as follows: 338, 345, 350, 424, 442 and either 443 or 446.

f) Minor Concentration in Sociology: All prerequisites to the minor are six lower-division hours in sociological science which must include: 203. The minor consists of 321, 331, 360 and a choice from 347, 345, 442, 446 and 464.

college scholars honors director: Dr. Harry C. Jacobson

college Scholars is a major with selective admission. For details contact the director. All
the Statistics Department in the College of Business Administration. See faculty list in the College of Business Administration.

Statistics

See faculty list in the College of Business Administration.

Zoology

See Interdisciplinary Programs.

Professors:
A.C. Echternacht (Head), Ph.D. Kansas; R.M. Bagby, Ph.D. Illinois; D.L. Burns, Ph.D. Oklahoma State; J.G. Carter (Emeritus), Ph.D. Pennsylvania; D.A. Elskiss, 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 (Distincation Scientist, Science Alliance Center of Excellance), Ph.D. Cotton (Emeritus); J.C. Kennedy, Ph.D. Iowa; J.N. Elles, Ph.D. Ohio State; J.B. Cook, Ph.D. California (Davis); G.F. McCracken, Ph.D. Cornell; D.L. Pines, Ph.D. New Mexico State; S.E. Rechert, Ph.D. Wisconsin; L.E. Rath, Ph.D. Chicago; A.C. Shea, Ph.D. Michigan State; G.L. Vaughan, Ph.D. Duke; H.G. Wash (Emeritus), Ph.D. Florida; G.L. Whiteson, Ph.D. Iowa.

Associate Professors:
K.D. Burnside, Ph.D. Iowa; C. Chen, Ph.D. Florida; D.J. Fox, Ph.D. Johns Hopkins; N.B. Grenier, Ph.D. Rutgers; M.L. Pan, Ph.D. Pennsylvania State.

Assistant Professors:
C. Beale, Ph.D. Cornell; J. Drake, Ph.D. Purdue; L.L. Knott, Ph.D. Boston (England); J.C. Halt, Ph.D. Illinois; R. Rango, Ph.D. Nebraska; B.D. McKee, Ph.D. Michigan State.

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

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

Major: Prerequisites to the major are Biology 110-120 or Zoology 117-118 and 3 hours of Statistics courses numbered 251, 252, 261, and at least 12 additional hours in Statistics courses numbered 251, 252, 261, and 491-492-493 may be counted toward the major. Additional statistics courses may be counted toward the major. Students interested in broad applications (e.g., teacher certification or vitamin therapy) may complete their required hours from a wide range of Statistics courses. In addition, specially designed options are available in (1) Interdisciplinary Organizational Communication and in (2) Public Communication. Students should inquire in the College Office for information and recommended advisors.

Minor: Statistics 100-120 is a prerequisite to the minor which consists of Statistics 250, 251, 252, 253, 371, 491-492-493. In Statistics 250, 251, 252, 253, 371, 491-492-493 may be counted toward the minor. Additional information for planning 372, and 491-492-493 may be counted toward the major. Additional statistics courses may be counted toward the major. Additional statistics courses may be counted toward the major. Additional statistics courses may be counted toward the major.

Applicants are invited to apply. Statistics Department for further information on careers in statistics and appropriate courses to take. It is highly recommended that a student majoring in statistics have a minor in an area of application.

Major: (a) Required courses consist of 25 hours from Mathematics 241, 251, Statistics 250, 251, 252, 261, Statistics 461, 462, Statistics 471 or Mathematics 472. (b) Statistics elective consists of 3 hours from upper-division Statistics courses not listed in part (a) and (c) Biocides consist of 6 hours to be selected from two of the following groups: Computer Science 111, 112, 401, 402, 403, 404, Industrial Engineering 201, 402, 403, Management 491, Mathematics 371, 471, 423, 425, 426 (other elective courses may be substituted as Electives with the faculty advisor's approval.

Minor: (a) Required courses consist of 16 hours from Mathematics 241, 251, Statistics 250, 251, 252, and (b) Statistics elective consists of 3 hours from upper-division Statistics courses not in part (a) of the minor.

THEATRE

Professors: T.F. Cooke, Ph.D. Florida State; R.M. Coffman, Jr.; M. Custer, M.F.A. Wisconsin; R.C. Fields, M.A. Miami (Ohio); J.D. Draper, M.F.A. Winnipeg.

Associate Professor: W.F. Black, M.F.A. Illinois


Major: Theatre 100 and 200 are prerequisites to a concentration which consists of (1) Theatre 210, 211, 240, 250, 300, 310, 430; (2) Three courses from the following: 481, 482, 484, 485, 486; (3) 3 additional hours of Theatre courses numbered 200 or above. 4 of which may be in cognate areas approved by the department; (4) at least half of the hours in the major must be at the 300 level or above.

Minor: Theatre 100 and 200 are prerequisites to a minor which consists of 450 and 10 additional hours of Theatre courses numbered 200 or above; 6 of which must be in history and criticism.

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

WOMEN'S STUDIES

See Interdisciplinary Programs.

ZOOLOGY

Professors: A.C. Echternacht (Head), Ph.D. Kansas; R.M. Bagby, Ph.D. Illinois; D.L. Burns, Ph.D. Oklahoma State; J.G. Carter (Emeritus), Ph.D. Pennsylvania; D.A. Elskiss, Ph.D. Minnesota; M.A. Handel, Ph.D. Kansas State;
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.
Sylvia E. Hart, Dean
Barbara M. Reid, Associate Dean for Student Affairs
Jahri N. Mingo, Associate Dean for Undergraduate Programs

Proceptors:
S. E. Hart (Dean); Ph. D. New York; D. H. Goodwin; Ph. D. Peabody; M. E. Grotel; Ph. D. Illinois; J. N. Mingo, B. M. Reid; Ph. D. Texas.

Associate Professors:

Assistant Professors:
S. M. Bower, Ph. D. Tennesee; M. T. Baylyrew; M. N. Emory; J. Blawon, M. S. N. Vanderbilt; K. P. Corwin, M. S. N. SUNY (Buffalo); K. L. Davis; M. S. N. North Carolina-Chapel Hill; G. W. Evans; M. S. N. Tennesee; S. M. Hatton; M. S. N. Pennsylvania; 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. Emery; D. L. Witt; M. S. N. Tennessee.

Instructors:
L. S. Blacksum, M. S. N. Vanderbilt; V. J. Burke; M. S. N. Vanderbilt; N. Gaylord, M. S. N. Colorado; P. A. Miller; M. S. N. Tennesee.

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 University, the 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) assume beginning leadership positions 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) grade 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) 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 enrol 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 enrol 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-requisites for Nursing 315. All junior level courses are pre-requisites to the senior year.

GRADING AND CONTINUATION POLICIES

(1) The minimum acceptable grade for all courses in the curriculum is a "C". The satisfactory/hy 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...
The maximum credit hours per semester for which a nursing student may register without special permission is 18.

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.

| Hours Credit | 301 Pharmacology | 304 Nursing Assessment and Health Promotion | 305 Transition to Professional Nursing | 312 Acute Care Nursing Theory | 313 Nursing Research | 315 Clinical Nursing Practice | 403 Family Health Nursing Theory | 403 Community Health Nursing | 403 Professional Nursing Seminar | 404 Nursing Management and Leadership | 412 Postpartum Long Term Nursing Theory | Validation Examinations or Nursing Externship |
|--------------|----------------|---------------------------------|---------------------------------|----------------|---------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|
| 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.

General requirements for the Master of Science in Nursing degree are given in the Graduate Catalog.
Eunice O. Shatz, Dean and Professor of Social Work, Ph.D. Brandeis University, The Florence Heller School for Advanced Studies in Social Welfare

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

Associate Professors:
Reginald Avery, Ph.D. Brandeis University; Thomas Craft, Ph.D. Tulane University; Catherine A. Fayer, Ph.D. University of Michigan; Jeanette Janierges, Ph.D. University of Michigan; Elle Moses, D.S.W. University of California (Berkeley); Frank J. Sipprells, MSSW University of Tennessee.

Assistant Professors:
Judith I. Feine, Ph.D. University of Tennessee.

Field Coordinator:
Phyllis Betz, MSSW, Tennessee.

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 potential. 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.

The program prepares 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 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.

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. Masters Degree Programs are offered on the campuses in Knoxville and in Nashville and Memphis. The Ph.D. Program is offered in Knoxville.

GRADING POLICY

The satisfactory/no credit option is not permitted in the major. The minimum acceptable grade for all social work courses is a C. Courses, other than field, in which a D or F is achieved may be repeated once. Field courses must be completed with a C or better, and may not be repeated.

A student receiving an incomplete (I) in any social work course must remove the incomplete prior to enrollment in subsequent field practice.

COURSE LOAD

The maximum credit hours per semester allowed for any student is 18. Special permission must be obtained for any over load.

PROGRESSION REQUIREMENTS

Students admitted to the University may request a faculty advisor from the College of Social Work. Students in the College must move through Initial and Full Progression. The following factors identify progression criteria for all social work students:

INITIAL PROGRESSION

1. Successful completion of Social Work 200 and 250 with a grade of C or better.
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.
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 attitude 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>Hours</th>
<th>Credit</th>
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<tbody>
<tr>
<td>Freshman</td>
<td>124</td>
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<tr>
<td>English 101, 102</td>
<td>6</td>
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<tr>
<td>Foreign Language (Intermediate Level)</td>
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<tr>
<td>Mathematics 112</td>
<td>3</td>
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<tr>
<td>History 151-152 or 161-162</td>
<td>6</td>
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<tr>
<td>Physiology or Biology Sequence with lab</td>
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<tr>
<td>Women's Studies 220</td>
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<tr>
<td>Sophomore</td>
<td>60</td>
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<tr>
<td>Zoology 210, 220</td>
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<tr>
<td>Anthropology 110</td>
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<td>Humanities - Literature Package</td>
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<td>Humanities - Philosophy</td>
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<td>Psychology 200</td>
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<td>Social Work 250, 255</td>
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<td>Economics 201</td>
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<td>Junior</td>
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<td>Anthropology 312</td>
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<td>Excludes</td>
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</tbody>
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Total: 124 hours
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 are already-enrolled students are ineligible. Prospective University Honors students are selected on the basis of previous academic performance, demonstration of an eagerness to be active learners and leaders, and extra-curricular 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 seniors are 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. Students are selected on the basis of leader-ship experience and skills, academic performance, and extracurricular activities (including community service). Students selected to become Tennessee Scholars receive full five-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 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 faculty-sponsored internship during their second year; complete a one-year seminar program; 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; attend monthly meetings of the Whittle Scholars; and complete a senior honors research project.

CHANCELLOR'S SCHOLARS PROGRAM

Each year the University awards Roddy, Bonham, Neyland, Holt, and Reeder-Siler scholarships to outstanding high school seniors. Roddy, Bonham, Neyland, and Reeder-Siler Scholars are selected by the General University Scholarship Committee, composed of faculty and University personnel. Holt Scholars are selected by a committee of alumni. Criteria for selection include academic performance and professional promise.

All recipients of the Roddy, Bonham, Neyland, Holt, and Reeder-Siler scholarships are invited to become Chancellor's Scholars. In addition to required work in their respective colleges, Chancellor's Scholars are required to complete a minimum of four lower division honors courses; complete a one-credit hour seminar each term in residence; develop a positive relationship with a faculty 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 its own and originality. Failure to meet the above requirements may 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 basis 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 basis 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 she 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 than 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 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 member, 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 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 professional 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 the 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. Any type of projects that do not meet themselves be a formal (A.H.) Defense. Hence the decision concerning whether or not to have a public defense should be made by the research committee and the Director of the University Honors Program.
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 colloqui 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. Ralph Norman, Acting Chair
University Studies Program
515 Andy Holt Tower
PHONE: 974-3265.
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 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 insures 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.

COUSE 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 continuation 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 coursework).
   c. Have completed a minimum of 30 semester hours.
   d. Be under 30 years old at time of commissioning (waivable).
   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.

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REQUIREMENTS FOR ALL MILITARY SCIENCE COMMISSIONEES

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

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

In addition to a bachelor's degree, there are required and recommended courses in designated fields of study that students must complete prior to commissioning. Students must 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.

If a cadet has already completed the ROTC summer study course, the university recognizes this by awarding them a course credit toward graduation.

Special Programs

Pay and Entitlements All students enrolled in the Army ROTC program are furnished texts by the Army through the Military Property Officer. Students enrolled in the ROTC Advanced CourseCurriculum 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 $600 for Advanced Summer Studies, $600 for Basic Summer Studies, plus meals and lodging are provided.

Army ROTC Scholarship Program The Army ROTC scholarship program offers financial assistance to commissioning young men and women in the Army ROTC program who are interested in the military vocation as a career. The scholarship provides for free tuition, textbooks, subsi- dy, 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 "SIMP" option combines the Army ROTC living allowance ($1000/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 "officers- in-training" in dual leadership/management positions. SIMP cadets participate with the reserve forces on a one weekend per month and two weeks' sixth 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 specialization in 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, pt, and Black, 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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<thead>
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<th>Hours Credit</th>
<th>Freshman</th>
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Basic Military Studies - Practicum

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Advanced Placement

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<td>Military Science 400</td>
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Selection

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e. One course in Math Reasoning.

Entry Into the Professional Officer Course (GMC). They then may compete for an Army 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 professions of Air Force officers. Upon successful completion of the program and graduation from the University, students are commissioned as Second Lieutenants and enter active duty.

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 OBLIGA-

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When applying for admission to the program, students must meet the following academic requirements:

1. Minimum overall GPA for admission into the advance course (Military Science 310, 320, 400, 410, 420): 2.0.
4. Quarterly counseling sessions with military advisor required for Advance Course and scholarship students only.
5. Officer Selection Battery test.
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 (AFQT); successful completion of a four-week test training course at an Air Force basic 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. After being nominated, the POC candidate must agree to take and successfully complete a course in mathematical reasoning or its equivalent before graduation and commissioning.

SCHOLARSHIP PROGRAM

Air Force ROTC Scholarships are available to qualified applicants in both the Four-Year and Two-Year Programs. Each scholarship provides full tuition, laboratory and incidental fees, and book fees. 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 Cadet 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.

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.

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Advanced Studies

THE COLLEGE OF LAW

Marilyn Yarbrough, Dean
Mary Jo Hoover, Associate Dean
Julie P. Harris, 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.-MBA program with the College of Business Administration and the 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 applications should be received before February 1 of the year of expected admission.

COLLEGE OF VETERINARY MEDICINE

Michael Shires, Dean
James J. Brace, Assistant Dean

The College of Veterinary Medicine, established in 1974, offers a professional curriculum leading to the degree of Doctor of Veterinary Medicine (D.V.M.). The college offers graduate studies leading to the degrees of Master of Science (M.S.) and Doctor of Philosophy (Ph.D.) with a major in Comparative and Experimental Medicine. Residency training programs in the various clinical specialties are also offered. The Graduate Catalog contains complete information concerning the programs in the college. Forms and instructions for making application for admission may be obtained from 201 Student Services Building.

The University of Tennessee, Knoxville, Tennessee 37996-0200. Applications must be received by January 15 of the year of expected admission. All pre-requirements must be complete by the end of the spring term of the year in which the student plans to enroll in the college.

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. Piester, Associate Dean of The Graduate School
Diana Lopes, Director, Graduate Admissions and Records
S. Kay Reed, Graduate Recruitment Coordinator
Ann L. Locusta, Thesis/Dissertation Coordinator
Rose Ann Thrantham, Assistant Director, Graduate Admissions and Records
Irene Kaplan, 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 Master’s programs in 87 fields of specialization and doctoral work in 52. Approximately 6,000 graduate students are enrolled, both on and off campus.

Administration of graduate student policies and procedures, and associated recordkeeping, is the responsibility of the Dean of The Graduate School. Much of the day-to-day administration of graduate study is conducted by department heads or faculty advisors and committees responsible for particular programs. In addition to departmental units, numerous interdisciplinary programs, institutes and centers have been developed on campus and in locations throughout the state.

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-seeking 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, Tennessee 37996-0200 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 Associate Professor: E.C. Uberbacher, Ph.D. Pennsylvania.
Research Assistant Professors: Robert S. Foote, Ph.D. Duke; Lan-Yang Chiang, Ph.D. Vanderbilt.

The University of Tennessee, Knoxville, Tennessee 37996-0200. Applications must be received by January 15 of the year of expected admission. All pre-requirements must be complete by the end of the spring term of the year in which the student plans to enroll in the college.

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The School of Library and Information Science provides a program leading to the Master of Library and Information Science degree. The School publishes supplementary information 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. Petgasser, Director

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 the study of pathology, immunology, hematology, infectious diseases, aberrant metabolism, oncology, and genetic pathology, hemotology, infectious diseases; augmenting the program in library education toward M.S. and Ph.D. degrees. These interests in continuing education for updating and broadening knowledge, and those who wish to pursue post-doctoral research. Graduate degree programs are available for qualified students. Further information, write for a Graduate Catalog.

ENERGY, ENVIRONMENT, AND RESOURCES CENTER

E. William Cokeglass, Director

The Energy, Environment, and Resources Center, 329 South Stadium Hall, was created in 1973 to encourage interdisciplinary research directed at solutions to problems related to energy and the environment. 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

Professors: G.E. Estes, M.L.S. Kent Stisk, Jose-Marie Griffiths, Ph.D. London (UK), E.F. Mauldin (Erin), M.S.L.S. Rilimo, G.R. Purcell, Ph.D. Cala Western Reserve; P. Wilson, Ph.D. Michigan


Assistant Professors: H.A. Palmitoux, M.A. Iowa; R. Pollard, Ph.D. Illinois (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 GRADUATE PROGRAM

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.L. Archer (Chair); Physiology: G. Vaughan; Biotechnology: D.K. Dougall; Cellular, Molecular and Development Biology: J.M. Buckler; Environmental Toxicology: W.R. Farkas; Ethology: O.G. Burghardt; Plant Pathology and Genetics: B.V. Conger. Veterinary Medicine: J.M. Blyant.

The programs leading to the M.S. and Ph.D. degrees in Life Sciences are interdepartmental and interdisciplinary in nature and are a result of the joint efforts of several 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, biotechnology, environmental biology, 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

The Institute has an established Center of Excellence in Laser Applications and offers graduate study and research opportunities in laser diagnostic techniques, materials interactions, physical and chemical properties of laser materials, and coherent and non-linear optics. The Institute was established in part to increase the research and engineering resources of Tennessee through education and public service projects, and in part to interface University faculty and student research with the Air Force Research Laboratory, 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 at these two centers. Students who enroll at UT 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 Director, 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 provide 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

<table>
<thead>
<tr>
<th>College of Agriculture</th>
<th>DEGREE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agricultural and Extension Education</td>
<td>M.S.</td>
</tr>
<tr>
<td>Agricultural Economics</td>
<td>M.S., Ph.D.</td>
</tr>
<tr>
<td>Agricultural Engineering</td>
<td>M.S., Ph.D.</td>
</tr>
<tr>
<td>Agricultural Engineering Technology</td>
<td>M.S.</td>
</tr>
<tr>
<td>Animal Science</td>
<td>M.S., Ph.D.</td>
</tr>
<tr>
<td>Entomology and Plant Pathology</td>
<td>M.S.</td>
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<tr>
<td>Food Technology and Science</td>
<td>M.S., Ph.D.</td>
</tr>
<tr>
<td>Forestry</td>
<td>M.S.</td>
</tr>
<tr>
<td>Ornamental Horticulture and Landscape Design</td>
<td>M.S.</td>
</tr>
<tr>
<td>Plant and Soil Science</td>
<td>M.S., Ph.D.</td>
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<tr>
<td>Wildlife and Fisheries Science</td>
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<table>
<thead>
<tr>
<th>College of Architecture and Planning</th>
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<tbody>
<tr>
<td>Planning</td>
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<tr>
<th>College of Business Administration</th>
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<tbody>
<tr>
<td>Accounting</td>
<td>M.Acc.</td>
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<tr>
<td>Business Administration</td>
<td>M.B.A., J.D., M.B.A., Ph.D.</td>
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<tr>
<td>Economics</td>
<td>M.A., Ph.D.</td>
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<tr>
<td>Management Science</td>
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<tr>
<td>Statistics</td>
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<tr>
<th>College of Communications</th>
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<tbody>
<tr>
<td>Communications</td>
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<th>College of Education</th>
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<tbody>
<tr>
<td>Art Education</td>
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</tr>
<tr>
<td>College Student Personnel</td>
<td>M.S.</td>
</tr>
<tr>
<td>Curriculum and Instruction</td>
<td>M.S., Ed.S., Ed.D.</td>
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<tr>
<td>Education</td>
<td>Ph.D.</td>
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<tr>
<td>Educational Administration and Supervision</td>
<td>M.S., Ed.S., Ed.D.</td>
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<tr>
<td>Educational Psychology</td>
<td>M.S., Ed.D.</td>
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<tr>
<td>Educational Psychology and Guidance</td>
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<tr>
<td>Health Education</td>
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<tr>
<td>Music Education</td>
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<tr>
<td>Physical Education</td>
<td>M.S., Ed.D.</td>
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<tr>
<td>Public Health</td>
<td>M.P.H.</td>
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<tr>
<td>Recreation &amp; Leisure Studies</td>
<td>M.S.</td>
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<tr>
<td>Rehabilitation Counseling</td>
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<tr>
<td>School Health Education</td>
<td>M.S., Ed.S.</td>
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<tr>
<td>Special Education</td>
<td>M.S.</td>
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<tr>
<td>Technological &amp; Adult Education</td>
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<tr>
<td>Vocational Technical Education</td>
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<tr>
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<tr>
<td>Aerospace Engineering</td>
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<td>Chemical Engineering</td>
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<tr>
<td>Civil Engineering</td>
<td>M.E., M.S., Ph.D.</td>
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<tr>
<td>Electrical Engineering</td>
<td>M.S., M.S., Ph.D.</td>
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<tr>
<td>Engineering Science</td>
<td>M.S., Ph.D.</td>
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<tr>
<td>Environmental Engineering</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>
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<tr>
<td>Nuclear Engineering</td>
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<td>Polymer Engineering</td>
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<th>College of Human Ecology</th>
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<tbody>
<tr>
<td>Child and Family Studies</td>
<td>M.S.</td>
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<tr>
<td>Foodservice and Lodging Administration</td>
<td>M.S.</td>
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<tr>
<td>Home Economics</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>
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<tr>
<td>Textiles, Retailing and Consumer Sciences</td>
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<tr>
<th>Intercollegiate</th>
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<tr>
<td>Avionics Systems (UTSI only)</td>
<td>M.S.</td>
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<tr>
<td>Comparative and Experimental Medicine</td>
<td>M.S., Ph.D.</td>
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<tr>
<td>Ecology</td>
<td>M.S., Ph.D.</td>
</tr>
<tr>
<td>Industrial and Organizational Psychology</td>
<td>M.S., Ph.D.</td>
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<tr>
<td>Life Sciences</td>
<td>M.S., Ph.D.</td>
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<td>Management Science</td>
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<tr>
<th>College of Liberal Arts</th>
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<tr>
<td>Anthropology</td>
<td>M.A., Ph.D.</td>
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<tr>
<td>Art</td>
<td>M.F.A.</td>
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<td>Audiology</td>
<td>M.A.</td>
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<tr>
<td>Biochemistry</td>
<td>M.S., Ph.D.</td>
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<tr>
<td>Botany</td>
<td>M.S., Ph.D.</td>
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<td>Chemistry</td>
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<td>Computer Science</td>
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<td>English</td>
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<tr>
<td>French</td>
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<td>Geography</td>
<td>M.S., Ph.D.</td>
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<td>Geology</td>
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<tr>
<td>German</td>
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<td>History</td>
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<td>Mathematics</td>
<td>M.Math., M.S., Ph.D.</td>
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<td>Microbiology</td>
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<tr>
<td>Modern Foreign Languages</td>
<td>Ph.D.</td>
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<tr>
<td>Music</td>
<td>M.Mus., M.A.</td>
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<tr>
<td>Philosophy</td>
<td>M.A., Ph.D.</td>
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<td>Physics</td>
<td>M.S., Ph.D.</td>
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<td>Political Science</td>
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<td>Psychology</td>
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<tr>
<td>Public Administration</td>
<td>M.P.A., J.D., M.P.A., M.S.S.W.</td>
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<td>Sociology</td>
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<tr>
<td>Speech</td>
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<td>Speech and Hearing Science</td>
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<td>Speech Pathology</td>
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<td>Theatre</td>
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<td>Zoology</td>
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<tr>
<td>Nursing</td>
<td>M.S.N., Ph.D</td>
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<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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<th>School of Biomedical Sciences</th>
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<td>Biomedical Sciences</td>
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<th>School of Library and Information Sciences</th>
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<tbody>
<tr>
<td>Library Science</td>
<td>M.L.S.</td>
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</table>
Continuing Education and Public Service

Acting Dean:
Sam C. Bill, Ed.D., Tennessee

Associate Dean:
William D. Barton, 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

Director:

Assistant Director:
N. Dahl-Brown, B. of Arch., M.S., Tennessee

Program Managers:
W. Brown, M.S., Tennessee
T. Gibbs, B.S., Tennessee
E. Kroner, B.A., Temple University
L. Law, B.S., Tennessee
G. Moxley, 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 new UT Conference Center, the center 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 stable 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 CEUs 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, 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, audiovisual equipment, sound systems, refreshment breaks, tours, banquet etc. 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 your 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-Center for Telecommunications and Video to provide teleconferencing services for the University and community. Professional groups and interested individuals may arrange to receive (downlink) satellite programming at the UT Conference Center or to transmit (uplink) to earth stations around the world.

Additional information may be obtained from UT Conferences, P.O. Box 2646, Knoxville, TN 37901, or by calling (615) 974-0250. FAX (615) 974-0054.

ENGLISH LANGUAGE INSTITUTE

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

Assistant Director:
Jan G. Hirt, 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 who 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.
NON-CREDIT PROGRAMS

University Evening School/Continuing Education and Public Service

Director:
G.D. Cooper, Ed.D., Tennessee

Coordinators:
B.K. Armstrong, M.A.T., Georgia State
D. Lovin, M.S., Tennessee

The Department of Non-Credit Programs provides a comprehensive array of courses and seminars designed and planned 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 talents or technical skills. Business seminars are offered to the public in the major cities within the state of Tennessee.

There can be delved or "on- site" for business or industrial clients; and instructional services are tailored to the needs of each group.

The types of courses offered by the department range from developing personal skills, such as communications, computer literacy, and management development. In human interest courses, such as plants and gardening, health, exercise and fitness. There are also courses which meet certain prerequisites 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 campus 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, along with ongoing program, the Smokey Mountain Field School, with the Great Smoky Mountains National Park. The School consists of an intensive weekend and five-day field course emphasizing outdoor exploration of the Smoky Mountain.

Continuing education units (CEUs) are awarded to students satisfactorily completing courses 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 direction which contributes to professional development, and qualified instruction." A permanent record of CEUs is maintained by the department, A transcript of all CEUs earned at The University of Tennessee, Knoxville, may be obtained upon written request.

Statewide legislation given 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 all of these conditions is required for enrollment. Additional information may be obtained at The Hasse Building, 609 Henley Street, Suite 105, Telephone (615) 974-3100.

UNIVERSITY EVENING SCHOOL

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

Associate Directors:
J.C. Sekula, Ph.D., Ed.D., Tennessee

Assistant Directors:
E.J. Junior, M.S., Tennessee
D.J. VonWesentien, M.S., Tennessee

Administrative Assistant:
B.H. Bixler

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

Director, Oak Ridge Resident Graduate Program:
V. Maya, M.S., Tennessee

The University Evening School, in conjunction with academic requirements, is required for departments, administers credit programs 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.

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:

- Bachelor of Science in Education with a major in Industrial Education (Industrial Training), Accounting, General Business, Economics, Finance, Public Administration, or Management.

College of Liberal Arts—Bachelor of Science with majors in Human Services or Industrial Education with a concentration in Industrial Training.

Some departments within the College of Liberal Arts (Education, Administration, and Engineering) offer all courses required for an advanced degree during the evening. The College of Education offers an M.S. in Educational Administration 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. Students may enroll in one concentrated credit course during the Mini-Term offered. All Oak Ridge graduates in Public Service are required to audit courses at UT, Knoxville free of charge on a space available basis. Legal verification of all of these conditions is required for enrollment. Additional information may be obtained at The Hess Building, 600 Henley Street, Suite 105, Telephone (615) 974-3100.

Course and instructors listed for the Mini-Term are carefully selected to reflect a broad academic base of credit programs. Enrollment is limited to an intensive program of study. Courses are offered in a variety of regular semesters; however, those courses may be supplemented with films, team teaching, field trips, independent studies, and in selected cases study, offering students an opportunity to participate in the Mini-term selected.

Off-Campus Programs. The University Evening School conducts undergraduate and graduate courses in many locations away from the Knoxville campus. The courses are scheduled to meet the needs or demands 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.

The College of Education 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), Doctor of Science in Education with a major in Technological and Adult Education (Statewide), Master of Science in Library and Information Science (Memphis). The Evening School administers an off campus program in Chattanooga that leads to an advanced degree in science and engineering.

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Some departments within the College of Liberal Arts (Education, Administration, and Engineering) offer all courses required for an advanced degree during the evening. The College of Education offers an M.S. in Educational Administration 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 (Memphis).

Mini-Term. The University Evening School offers a Mini-Term during May. Students may enroll in one concentrated credit course during the Mini-Term offered. All Oak Ridge graduates in Public Service are required to audit courses at UT, Knoxville free of charge on a space available basis. Legal verification of all of these conditions is required for enrollment. Additional information may be obtained at The Hess Building, 600 Henley Street, Suite 105, Telephone (615) 974-3100.
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 course offerings, 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, 450 Communications Bldg., The University of Tennessee, Knoxville, TN 37996. Telephone: (615) 974-5134.

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 courses at the University at no charge on an audit, space available basis. Legal verification 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 $76 for a full-time load. Registration for day and evening classes is handled by the Evening School.

Continuing Education and Public Service/Elderly and Disabled Persons

DEPARTMENT OF INDEPENDENT STUDY
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ACCOUNTING (009)

202 Principles of Financial Accounting (3) Introduction to financial accounting theory and practice with emphasis on preparation and interpretation of financial statements. Prerequisite: to all other courses in accounting. Preparing taxes: Business 110 or 121: E.

203 Principles of Managerial Accounting (3) Introduction to managerial and cost accounting concepts with emphasis on use of accounting data by managers for decision-making purposes. Introduction to nonaccounting audiences, and decision making. Preparing taxes: Business 311 with a C or better, or consent of instructor.


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. Preparing taxes: Management 301, junior standing, and consent of instructor can 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. Preparing taxes: 312, 321, and 341 with a grade of C or better.

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, auditors in specific transaction cycles. Preparing taxes: 312 with a C or better, 311: F.

414 Advanced Accounting (3) Issues and alternatives in advanced theory and problem areas including financial accounting theory, partnership accounting, business combinations, consolidated financial statements, lease financial statements, and income tax accounting. Preparing taxes: 311 with a C or better, F.

415 Federal Income Taxation (3) Fundamentals of gross income, deductions, credits, and tax determination. Introduction to taxation of corporations and partnerships. Preparing taxes: 311 with a C or better, or consent of instructor.

ADVERTISING (012)

200 Advertising Principles (3) Survey of the role of advertising in American business and society. Relationship of advertising to the American economy, principles and techniques of advertising, and the components of the advertising process: research, media, creative, and management.

340 Advertising Research Methods (3) Secondary data and primary research techniques for advertising decisions. Preparing taxes: 250 with a grade of C or better and 312 with a grade of C or better.

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

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

381 Advertising Professional Seminar (3) Exploration of career choices in mass communications. Past and present writing, interviewing, and portfolio preparation. Preparing taxes: Progression as a major in the Department of Advertising.

460 Advertising Management (3) Case-study approach to advertising decisions. Data analysis and interpretation, generating alternative strategies, and written presentation of recommendations. Preparing taxes: 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.

470 Advertising Campaigns (3) Group-based development, execution, and evaluation of an advertising campaign for a regional or national client. Preparing taxes: 450 with a grade of C or better.

490 Special Topics (3) Detailed study of a specialized area of advertising. Topics vary from semester to semester. Prerequisite: 350 and 360 with grades of C or better.

493 Independent Study (1-3) Individual study in a specialized area of advertising. Ten hours laboratory each week. May be repeated once. Prerequisite: Progression as a major in the Department of Advertising. F, Sp.

494 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. Prerequisite: 350 with a grade of C or better.

AFRO-AMERICAN STUDIES (022)

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

324 Minority Group Politics in the United States (3) Same as Political Science 324.

341 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.

363 Afro-American Religious Studies (3) Same as Religious Studies 363.

364 Contemporary Issues in Afro-American Education (2) 1944 to the present. Experiences are related to the current dilemmas of providing quality education for the Afro-American student including organizational, social, and political issues. Preparing taxes: Preparing taxes: Consent of instructor.


370 History of Jazz (3) Same as Music History 370.

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

374 Afro-American Religious Studies (3) Same as Religious Studies 374.

375 Afro-American Studies (3) Same as Religious Studies 375.

400 Families, Race, Class and Culture (3) Same as Child and Family Studies 400.
views Afro-Americans and Africans have of each other. Afro-American societies in such areas as education, can societies (3) Comparative studies of African and Afro-American cultures (3) Focuses on attempts by Afro-Americans to implement a research project of their choice in the field. May be repeated. Maximum 6 hours. 440 African Political Ethics (3) Same as Political Science 452. 451 African Personality (3) Same as Anthropology 463. 473 Black Male in American Society (3) Examines the historical context of the region in which Afro-Americans have developed concerning Black males in American society. Special attention is paid to family, race, and gender roles. 480 Black Communities in Urban America (3) Evaluates the historical and social influences of Black communities on the urban environment and political, economic, and social restructuring. Writings of instructors. 491 Independent Study (1-3) Individual study of a special project or problem in Agricultural and Extension Education. Must be selected in consultation with the instructor. Prerequisite: Consent of instructor. May be repeated for credit. Maximum 6 hours. 410 Orientation to Agricultural Economics and Business (1) Primarily for Agricultural Economics and Business majors. Introduces the basic principles and procedures for determining most profitable farm organization, for information use and dissemination. 410 Seminar in Agricultural Economics and Business (3) Survey of theoretical and practical problems facing rural communities; linkages between farm and nonfarm sectors; models and tools for analyzing rural economic aspects of acquisition and management of capital asset, labor, and income. 470 Natural Resource Economics (3) Nature of natural resources, economics of use: externalities in natural resource use, factors influencing environmental quality; alternative public policy tools for influencing natural resources. 492 Independent Study (1-3) Directed individual or supervised study in approved major. May be repeated. Maximum 6 hours. 493 Independent Study (1-3) Directed individual or supervised study in approved major. May be repeated. Maximum 6 hours.
Agricultural Engineering (88)

311 Surveying and Engineering Technology in Agriculture (3) Agricultural surveying including measurements of distances, angles, and areas; differential and profile leveling; topographic surveying and mapping; engineering fundamentals applied to problems in land and water conservation; agricultural machinery, and structures; emphasis upon analytical techniques and problem solving. 2 hours and 2 labs. F

423 Forest and Fire Protection Engineering Technology (3) Application of basic engineering principles to agricultural and rural fire protection. Fire fighting equipment, organization, planning, and procedures. Prereq: 311. 2 hours and 2 labs. F

422 Fire Protection Engineering Technology (3) Application of basic engineering principles to agricultural and rural fire protection. Fire fighting equipment, organization, planning, and procedures. Prereq: 311. 2 hours and 2 labs. F

AGRICULTURAL ENGINEERING TECHNOLOGY (57)

234 Agricultural Marketing (2) Marketing of agricultural products; categories of markets; factors affecting market demand; marketing channels; promotional techniques and principles involving hard goods, power equipment, and air and gas welding. 1 hour and 2 labs. Sp

211 Surveying and Engineering Technology in Agriculture (3) Agricultural surveying including measurements of distances, angles, and areas; differential and profile leveling; topographic surveying and mapping; engineering fundamentals applied to problems in land and water conservation; agricultural machinery, and structures; emphasis upon analytical techniques and problem solving. 2 hours and 2 labs. F

355 Properties of Biological Materials (2) Mechanical, thermal, and electrical properties of biological systems and their effect on engineering design. 1 lab and 2 hours. Fall

261 Water and Wastewater Laboratory Engineering (3) Laboratory on basic principles in 240A. Conducts experiments to verify solutions to applied and theoretical problems in water and wastewater treatment processes. Prereq: 240A. 3 labs. Spring

350 Properties of Biological Materials (2) Mechanical, thermal, and electrical properties of biological systems and their effect on engineering design. 1 lab and 2 hours. Fall
ANIMAL SCIENCE (113)

101 Orientation in Animal Science (1) For Animal Science majors and Prevet students in their first year. Discussion of student services, seminars, and career opportunities. Student participation in college experience. 1 hour. F. T. P.


261 Fundamentals of Food Animal Evaluation (3) Biology of sex and sexual differentiation; functional anatomy of male and female reproductive tracts; factors influencing conception; factors influencing survival and performance; genetics of meat and milk characteristics. 4 hours and 2 labs. F, Sp.


265 Beef Cattle Production (2) Life history, growth and development; feeding, environmental influences on growth, and growth rate. 1 hour and 1 lab. F, Sp.

267 Swine Production (2) Life history, growth and development; feeding, environmental influences on growth, and growth rate. 1 hour and 1 lab. F, Sp.

421 Applied Reproductive Physiology in Farm Animals (3) Reproduction of farm animals. Endocrine and immune systems; factors influencing reproduction; genetic and environmental influences on reproduction. 3 hours and 1 lab. F, Sp.

440 Animal Nutrition and Feeds (3) Properties, functions, utilization, and deficiency symptoms of essential nutrients. 3 hours lecture and 1 lab. F, Sp.

441 Principles of Animal Breeding (3) Genetics and management of livestock and poultry using principles of probability and statistical analysis. 3 hours lecture and 1 lab. F, Sp.

442 Population Genetics (2) Population structure; genetic variation; factors influencing genetic variation and selection; and genetic drift, gene flow, and migration. 2 hours and 1 lab. F, Sp.

444 Animal Genetics (3) Principles of population genetics, evolution, and DNA structure and function; quantitative genetics and animal breeding. 3 hours lecture and 2 labs. F, Sp.

445 Animal Breeding (3) Breeding programs for dairy cattle, beef cattle, and swine; meat, milk, and dual purpose sheep; poultry. Selection indexes, breeding and selection programs, and response to selection. 3 hours lecture and 1 lab. F, Sp.

446 Animal Production and Management (3) Breeding, nutrition, production, management, and marketing of farm animals. 3 hours lecture and 1 lab. F, Sp.

447 Animal Production Science (3) Basic principles of animal production including nutrition, feeding, reproduction, and disease. 3 hours lecture and 1 lab. F, Sp.

450 Animal Reproduction (3) Reproductive physiology of farm animals, including semen collection and storage, artificial insemination, embryo transfer, and assisted reproductive technologies. 3 hours lecture and 1 lab. F, Sp.

451 Animal Nutrition and Feeds (3) Properties, functions, utilization, and deficiency symptoms of essential nutrients; nutritive value, properties and functions of feedstuffs. 3 hours lecture and 1 lab. F, Sp.

452 Animal Breeding (3) Breeding programs for dairy cattle, beef cattle, and swine; meat, milk, and dual purpose sheep; poultry. Selection indexes, breeding and selection programs, and response to selection. 3 hours lecture and 1 lab. F, Sp.

453 Animal Production and Management (3) Breeding, nutrition, production, management, and marketing of farm animals. 3 hours lecture and 1 lab. F, Sp.

454 Animal Production Science (3) Basic principles of animal production including nutrition, feeding, reproduction, and disease. 3 hours lecture and 1 lab. F, Sp.

455 Animal Reproduction (3) Reproductive physiology of farm animals, including semen collection and storage, artificial insemination, embryo transfer, and assisted reproductive technologies. 3 hours lecture and 1 lab. F, Sp.


ANTHROPOLOGY (122)


122 Prehistory (3) Introduction to methods and techniques used to identify and date archaeological cultures. Historical and prehistoric cultures and their development. 3 hours lecture and 2 labs. F, Sp.

220 Principles of Archaeology (3) Introduction to methods and techniques used to identify and date archaeological cultures. Historical and prehistoric cultures and their development. 3 hours lecture and 2 labs. F, Sp.

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220 Principles of Archaeology (3) Introduction to methods and techniques used to identify and date archaeological cultures. Historical and prehistoric cultures and their development. 3 hours lecture and 2 labs. F, Sp.
120 American Cultures (3) An introduction to the study of our own society, including such topics as ethnic com- munities, social classes, power structures, etc. Writing-expository style. Credit/no credit in one class with class in 130 and 300 words of writing outside the classplin.

360 North American Prehistory (3) Prehistoric cul- tures of North America from initial occupation of the continent to European contact. Writing-expository style. Credit/no credit in one class with a minimum of 3000 words of writing outside the classplin.

361 Historical Archaeology (3) Historical archaeology and its application to the study of American and Mexican cultures in the United States from 18th to 20th centuries.

383 Principles of Cultural Anthropology (3) Research strategies used in developing and testing hypotheses, historical and archaeological methods and techniques.

410 Principles of Cultural Anthropology (3) Exclusion- and illustration of major concepts, theories and methods in cultural anthropology, with application to analysis of specific ethnographic cases. Prerequisite: 130.

411 Linguistic Anthropology (3) Basic linguistic con- cepts relevant to study of modern anthropology, par- ticularly investigation of relationships between language and culture. Prerequisites: 130 or 200 (same as Linguistics 411).

101 Introduction to Architecture (3) An introduction to architectural design concepts, from historic, to modern, to post modern, to contemporary styles. Prerequisite: Consent of Instructor.

102 Visual Design (2) An introduction to architectural design concepts, from historic to modern, to post modern, to contemporary styles.普erequisite: Consent of Instructor.

204 Second Degree Program: Seminar II (2) Selected readings in history, theory, and design methodology with emphasis on analysis of architectural examples. Prerequisite: 203.

211 History of Architecture I (3) Development of ideas and ideas of building and community form, emphasis on Renaissance in Italy, France and Spain. Prerequisite: 151.

212 History of Architecture II (3) Development of ideas and ideas of building and community form. English Renaissance, the Renaissance in Italy, France and Spain through the mid-twentieth century. Examples of contemporary works and theories of the Renaissance. Prerequisite: 211.

213 Computer Applications in Architecture (3) Students will be introduced to basic concepts of architectural design concepts, from historic to modern, to post modern, to contemporary styles. Prerequisite: 151.

214 Architectural Design I (6) Principles of architectural design and critical thinking in the design process. Prerequisite: 172.

215 Architectural Design II (6) Principles of architectural design and critical thinking in the design process. Prerequisite: 172.

231 Computer Applications in Architecture (3) Students will be introduced to basic concepts of architectural design concepts, from historic to modern, to post modern, to contemporary styles. Prerequisite: 151.

281 Second Degree Program: Design I (6) Principles of architectural design and critical thinking in the design process. Prerequisite: 172.

290 Principles of Anthropology (3) Theoretical issues in anthropology for undergraduate students. Topics may include structural experience or laboratory study of anthropological methods. May be repeated. Prerequisite: Either 110, 120, 130 or consent of instructor.

458 Selected Topics in Anthropology (3) Theoretical issues in anthropology for undergraduate students. Topics may include structural experience or laboratory study of anthropological materials. May be repeated. Prerequisite: Either 110, 120, 130 or consent of instructor.

460 Fieldwork in Archaeology (3-9) Fieldwork in archaeological data recovery and analytical techniques. Prerequisite: Consent of instructor. May be repeated. Maximum 9 hours.

461 African Prehistory (3) African cultural history from the earliest evidence of human activity to the time of European contact. Prerequisite: At least one in one 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 beginning of settled life. Prerequisites: Prerequisite 130 or consent of instructor. May be repeated. Maximum 3 hours.

463 African Prehistory (3) African cultural history from the earliest evidence of human activity to the time of European contact. Emphasis on case studies of selected provinces of the African continent. Prerequisite: 130 or consent of instructor. May be repeated. Maximum 3 hours.

464 Human Origins (3) An in-depth examination of the human family. Prerequisite: 110 or consent of instructor. 3 hours and 1 hour lab.

465 Palace History (3) History of architecture in the Middle East. Prerequisite: Consent of Instructor.

466 Urban Archaeology (3) Field archaeology and interpretation of archaeological remains in urban sites in the United States. Course content will include fieldwork and archaeological research techniques basic to urban archeology. Prerequisite: 130 recommended.

467 Human Deleterious (3) A study of the materials and methods employed in the interpretation of archaeological remains and their placement within the context of the human environment. Prerequisite: 130 or consent of instructor.

468 Fieldwork in Archaeology (3) An introduction to archaeological fieldwork and the techniques employed in the analysis of archaeological data. Prerequisite: Consent of instructor.

469 Archaeological Laboratory (3) A laboratory course for the processing of archaeological materials recovered from fieldwork. Prerequisite: Consent of instructor.

471 Seminar in Archaeological Theory (3) A seminar in the development of archaeological theory. Prerequisite: Consent of instructor.

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498 Seminar in Archaeological Theory (3) A seminar in the development of archaeological theory. Prerequisite: Consent of instructor.
322 Architectural Structures II (4) Continuation of analysis and design of simple structural steel, wood and concrete based upon specific loading requirements. Use of construction and building codes, standards and design tables - selection of structural members. Prereq: 331.

333 Advanced Structural Design (3) Analysis and design of tall building structural systems; evaluation of lateral and vertical load behavior of building systems. Prereq: 332 or equivalent.

334 Advanced Structural Analysis (3) Philosophy of structural form and design principles based upon advanced mathematical and experimental analysis of structures including use of computer programs. Prereq: 332 or equivalent.

335 Advanced Design of Steel Buildings (3) Conception and construction of steel buildings - design and specification of steel members and connections. Prereq: 332 or equivalent.

336 Advanced Design of Concrete Buildings (3) Analysis and design of concrete buildings and structures, including use of computer programs. Prereq: 231 and 232. F

337 Advanced Design of Timber Buildings (3) Analysis and design of timber buildings and structures, including use of computer programs. Prereq: 231 and 232. Sp

340 Advanced Design of Masonry Structures (3) Analysis and design of masonry structures and structures, including use of computer programs. Prereq: 231 and 232. F

400 Service Practicum (0) Experience in architectural practice or government for a minimum of 3 months to be completed prior to fifth year entry. E

401 Advanced Lighting (3) In-depth analysis and innovative concepts in design of lighting, heating, and air conditioning. Prereq: 341.

402 Advanced and Mechanical Applications (4) Analysis and selection of structural and mechanical systems for a specific building project. Prereq: satisfactory completion of a 12-credit unit in design. Prereq: 331. F, 471.

403 Environmental Design (3) Analysis and design of building systems. Prereq: 471.

404 Preservation Technology (3) Techniques of preservation of historic ruins, sites, artifacts, and buildings. Prereq: 272. F

405 The Architect (3) An introduction to professional practice. Prereq: 272. F

406 Advanced Architectural History (3) History of architecture through the ages. Prereq: 272 or equivalent office for a minimum of 3 months to be completed prior to fifth year entry. E

407 Architecture Design IV (6) Design synthesis. Introduction to design processes and development of standard design hypotheses which inform the character of a building project. Selected project under faculty direction. Exploration of professional, societal, and geographical influences which provide the theoretical basis for design throughout history. Prereq: 480 and satisfactory completion of all design courses. Sp

408 Architecture Design V (6) Design project from concept to completion through design development phase. Specification of component building systems including structure, mechanical, lighting and construction details. Prereq: 472. F

410 Architectural Photography (3) Photography as a design, research, and preparation medium. Application of photographic techniques, printing and processing. Color, black and white.

411 Architectural Design VI (6) Design project from concept to completion through design development phase. Specification of component building systems including structure, mechanical, lighting and construction details. F

412 Architecture Design VII (6) Design project from concept to completion through design development phase. Specification of component building systems including structure, mechanical, lighting and construction details. F

413 Tennessee Architecture (3) History of settlement of Tennessee. Selected examples explored through readings, assignments, lectures, discussions, and field trips. Historical research using primary materials.

414 History of Architectural Technology (2) Building materials and construction techniques from antiquity to the present. Prereq: 341.

415 Medieval Architecture (3) History of architecture from the decline of Rome to the beginning of the Renaissance. Prereq: Consent of instructor. (Same as Medieval Studies 415.)

416 Forms of Utopia (3) Ideal and architectural expression of Utopian movements. Prereq: Consent of instructor.

417 The International Style (3) A survey of architecture of the early modern movement, primarily in Europe and America, covering the years 1900 to 1946.

418 American Architecture (3) Development of North American architecture from mid-eighteenth century to 1860. Prereq: Consent of instructor. (Same as Civil Engineering 418.)

419 American Architecture, 1860 - 1940 (3) Byzantine periods from the Gothic through the Twentieth Century.

420 History of Landscape Architecture (3) Historical and contemporary landscape systems and how they shape the theoretical basis for design throughout history. Prereq: Consent of instructor. Prereq: satisfactory completion of a 12-credit unit in design. Prereq: 331. F

421 History of Architectural Technology (3) History of technology used in old buildings. Examples from pre-historic times to the present.

422 Modern East European Architecture (3) Twentieth-century architecture in Russia, Czechoslovakia, Poland, Hungary, East Germany, Romania, Bulgaria, Yugoslavia.

423 Eastern European Architecture (3) A study of architectural evolution in Eastern Europe from the decline of Rome to the beginning of the Renaissance. Prereq: Consent of instructor. (Same as Medieval Studies 415.)

424 Elementary Structural Matrix Methods (3) Introduction to structural analysis. Review of matrix algebra and vector systems, statics, kinematics, and kinetics of particles and rigid bodies. Prereq: Consent of instructor. (Same as Civil Engineering 431.)

425 Special Topics in Architecture (1-3) Individual projects under faculty direction. Credit adjusted to project complexity and level of effort. May be repeated. Maximum credit 6 hours.

426 Special Topics in History, Theory and Criticism (1-3) Special topics of current interest. May be repeated. Prereq: satisfactory completion of all design courses.

427 Structural and Mechanical Applications (4) Analysis and selection of structural and mechanical systems for a specific building project. Prereq: satisfactory completion of a 12-credit unit in design. Prereq: 331. F, 471.

428 Environmental Design (3) Analysis and design of building systems. Prereq: 471.

429 Building Energy Management (3) Building energy management and control systems. Building system loads, building control systems; building standards. Prereq: Consent of instructor.

430 Planning and Design of Tall Buildings (3) Architectural, economic and urban design considerations in design and development of tall buildings. Use of all building systems and services including building codes and standards; building standards; building systems; foundations; structures, building. Prereq: Consent of instructor.

431 Fire Safety and Building Codes (3) Fire safety and building codes. Prereq: 472.

432 Introduction to Architecture (3) Survey of architectural history and development. History and theory of modern, postmodern, and contemporary architecture. Prereq: Consent of instructor.

433 Earthquake-Resistant Structures (3) Analysis and design of structures subjected to earthquake effects. Earthquake engineering, a broad discipline concerned with the design of buildings and structures that are able to resist earthquake forces. May be repeated. Prereq: Consent of instructor. (Same as Civil Engineering 433.)

434 Earthquake-Resistant Structures (3) Analysis and design of structures subjected to earthquake effects. Earthquake engineering, a broad discipline concerned with the design of buildings and structures that are able to resist earthquake forces. May be repeated. Prereq: Consent of instructor. (Same as Civil Engineering 433.)

435 Planning and Design of Tall Buildings (3) Architectural, economic and urban design considerations in design and development of tall buildings. Use of all building systems and services including building codes and standards; building standards; building systems; foundations; structures, building. Prereq: Consent of instructor.

436 Environmental Design (3) Building energy management and control systems. Building system loads, building control systems; building standards. Prereq: Consent of instructor.

437 Architectural Design (3) Design project from concept to completion through design development phase. Prereq: satisfactory completion of all design courses. Sp

438 Architectural Design (3) Design project from concept to completion through design development phase. Prereq: satisfactory completion of all design courses. F

439 Architectural Design (3) Design project from concept to completion through design development phase. Prereq: satisfactory completion of all design courses. F

440 Advanced Architectural Design (3) Design project from concept to completion through design development phase. Prereq: satisfactory completion of all design courses. F

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314 Painting Portfolio Review (0) Review of prior work.

313 Painting III (4) Individual expression with varied media and techniques stressing personal style of expression. Prereq: 213 and 312 or consent of instructor. May be repeated. Maximum 8 hours.

312 Drawing Portfolio Review (0) Review of prior work in watercolor stressing personal style of expression with varied media and techniques. Prereq: 212 and 312 or consent of instructor. May be repeated. Maximum 8 hours.

218 Ceramics Construction (4) Large scale functional and non-functional forms on canvas. Prereq.: 218 and 312. May be repeated. Maximum 8 hours.


320 Ceramics Portfolio Review (0) Review of prior work in watercolor. Satisfactory/No credit only.

311 Glass Portfolio Review (0) Review of prior work in glass. Satisfactory/No credit only.

205 Drawing I (4) Basic principles of drawing, including observation, composition, and creative expression. Prereq.: 206 or consent of instructor. May be repeated. Maximum 8 hours.

326 Drawing IV: Individual Projects (3-6) Special topic. Student or instructor-initiated course offered at convenience of department. Prereq.: Determined by department at the time of registration for junior and senior courses. Prereq.: 241 and 324 or consent of instructor. May be repeated. Maximum 12 hours.

232 Sculpture I (3) Basic principles of sculpture. Prereq.: 209 and 209 or consent of instructor. May be repeated. Maximum 8 hours.

226 Sculpture II (3) Basic principles of sculpture. Prereq.: 225 and 225 or consent of instructor. May be repeated. Maximum 8 hours.

224 Sculpture III (3) Advanced modeling. Prereq.: 223 and 223 or consent of instructor. May be repeated. Maximum 8 hours.

223 Wood Sculpture (3) Basic principles of sculpture. Prereq.: 222 and 222 or consent of instructor. May be repeated. Maximum 8 hours.

221 Sculpture I (3) Basic principles of sculpture. Prereq.: 220 and 220 or consent of instructor. May be repeated. Maximum 8 hours.

316 Watercolor Portfolio Review (0) Review of prior watercolor work. Prereq.: 316. May be repeated. Maximum 8 hours.

315 Watercolor III (4) Individual expression with varied media and techniques stressing personal style of expression. Prereq.: 315. May be repeated. Maximum 8 hours.

314 Painting Portfolio Review (0) Review of prior work in watercolor. Satisfactory/No credit only.

313 Painting III (4) Individual expression with varied media and techniques stressing personal style of expression. Prereq: 213 and 312 or consent of instructor. May be repeated. Maximum 8 hours.

312 Drawing Portfolio Review (0) Review of prior work in watercolor stressing personal style of expression with varied media and techniques. Prereq: 212 and 312 or consent of instructor. May be repeated. Maximum 8 hours.

205 Drawing I (4) Basic principles of drawing, including observation, composition, and creative expression. Prereq.: 206 or consent of instructor. May be repeated. Maximum 8 hours.

326 Drawing IV: Individual Projects (3-6) Special topic. Student or instructor-initiated course offered at convenience of department. Prereq.: Determined by department at the time of registration for junior and senior courses. Prereq.: 241 and 324 or consent of instructor. May be repeated. Maximum 12 hours.

232 Sculpture I (3) Basic principles of sculpture. Prereq.: 209 and 209 or consent of instructor. May be repeated. Maximum 8 hours.

226 Sculpture II (3) Basic principles of sculpture. Prereq.: 225 and 225 or consent of instructor. May be repeated. Maximum 8 hours.

224 Sculpture III (3) Advanced modeling. Prereq.: 223 and 223 or consent of instructor. May be repeated. Maximum 8 hours.

223 Wood Sculpture (3) Basic principles of sculpture. Prereq.: 222 and 222 or consent of instructor. May be repeated. Maximum 8 hours.

221 Sculpture I (3) Basic principles of sculpture. Prereq.: 220 and 220 or consent of instructor. May be repeated. Maximum 8 hours.
ART ARROWONT PI Beta PHI SCHOOL OF ARTS AND CRAFTS

450 Special Topics (2-4) Student or instructor-initiated course of instruction offered at convenience of department. May be repeated.

419 Drawing (2-4) Intermediate to advanced. May be repeated.

420 Ceramics (2-4) Intermediate to advanced. May be repeated.

429 Wood (2-4) Advanced to intermediate. May be repeated.

450 Special Topics (2-4) Student or instructor-initiated course of instruction offered at convenience of department. May be repeated.

450 Drawing (2-4) Intermediate to advanced. May be repeated.

429 Wood (2-4) Advanced to intermediate. May be repeated.

450 Special Topics (2-4) Student or instructor-initiated course of instruction offered at convenience of department. May be repeated.

450 Drawing (2-4) Intermediate to advanced. May be repeated.

429 Wood (2-4) Advanced to intermediate. May be repeated.

450 Special Topics (2-4) Student or instructor-initiated course of instruction offered at convenience of department. May be repeated.

ART EDUCATION (141)

300 Art for the Elementary Classroom Teacher 2 Methods of teaching art in elementary classrooms including developmental theory, philosophical concerns and selected media experiences.

301 Foundation of Art Education 3 Basic philosophy and structure not including artistic training activities in two and three dimensional design, art appreciation, and teaching methodology.

302 Concepts of Drawing and Painting 3 Processes in teaching drawing and painting including consideration of pertinent literature and research.

303 Concepts of Sculpture and Crafts 3 Processes in teaching of sculpture and crafts including pertinent literature and research.

304 Practice of Printmaking 3 Process, printing and lettering including pertinent literature and research.

305 Field Experience (1) Two hours related to teaching and to teacher role. May be repeated. Minimum 2 hours. Prior enrollment in Teacher Education Program. Satisfaction/Better Credit only.

308 Curriculum Planning and Teaching Strategies 3 Program development, instructional methods, programmed learning, contemporary issues, simulation and micro-teaching situations. Prerequisite: 301 and admission to Teacher Education Program.

400 Internship I: Grades K-12 (3) Demonstration of professional competence in planning, instruction and evaluation of teaching in the classroom.

401 Internship II: Grades K-12 (3) Demonstration of professional competence in planning, instruction and evaluation of teaching in the classroom.

402 Internship III: Grades K-12 (3) Demonstration of professional competence in planning, instruction and evaluation of teaching in the classroom.

403 Internship IV: Grades K-12 (3) Demonstration of professional competence in planning, instruction and evaluation of teaching in the classroom.

404 Special Topics (2-4) May be repeated. Minimum 6 hours.