OPTION 2. PROFESSIONAL INTERIOR DESIGN

The following curriculum provides for those students who are primarily interested in becoming professional interior designers.

<table>
<thead>
<tr>
<th>Freshman</th>
<th>Hours Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Home Economics 1510</td>
<td>4</td>
</tr>
<tr>
<td>Home Economics 1520</td>
<td>4</td>
</tr>
<tr>
<td>CDID 1419</td>
<td>2</td>
</tr>
<tr>
<td>Art 1115-25-35</td>
<td>12</td>
</tr>
<tr>
<td>Art 1815-25</td>
<td>8</td>
</tr>
<tr>
<td>*Natural Science Electives</td>
<td>12</td>
</tr>
<tr>
<td>English 1510-20</td>
<td>8</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Sophomore</th>
<th>Hours Credit</th>
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<tbody>
<tr>
<td>English 3510</td>
<td>4</td>
</tr>
<tr>
<td>CDID 2115-16</td>
<td>12</td>
</tr>
<tr>
<td>CDID 3125</td>
<td>5</td>
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<tr>
<td>CDID 3130</td>
<td>3</td>
</tr>
<tr>
<td>Speech 2311</td>
<td>4</td>
</tr>
<tr>
<td>Economics 2110-20</td>
<td>6</td>
</tr>
<tr>
<td>Home Economics 2510</td>
<td>4</td>
</tr>
<tr>
<td>Electives</td>
<td>8</td>
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<table>
<thead>
<tr>
<th>Junior</th>
<th>Hours Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Psychology 2500 and 2530 or 2540</td>
<td>8</td>
</tr>
<tr>
<td>Marketing 3110</td>
<td>3</td>
</tr>
<tr>
<td>Textiles and Clothing 3420</td>
<td>3</td>
</tr>
<tr>
<td>CDID 3280</td>
<td>3</td>
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<tr>
<td>CDID 3250-56</td>
<td>12</td>
</tr>
<tr>
<td>Home Economics 3510</td>
<td>4</td>
</tr>
<tr>
<td>Electives</td>
<td>13</td>
</tr>
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</table>

<table>
<thead>
<tr>
<th>Senior</th>
<th>Hours Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>*Collateral Area Electives</td>
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<tr>
<td>CDID 4320</td>
<td>3</td>
</tr>
<tr>
<td>CDID 4110</td>
<td>3</td>
</tr>
<tr>
<td>CDID 3510</td>
<td>4</td>
</tr>
<tr>
<td>CDID 4310</td>
<td>3</td>
</tr>
<tr>
<td>CDID 4155-56</td>
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</tr>
<tr>
<td>Textiles and Clothing 5220</td>
<td>3</td>
</tr>
<tr>
<td>Art 3745</td>
<td>3</td>
</tr>
<tr>
<td>Electives</td>
<td>5</td>
</tr>
</tbody>
</table>

TOTAL: 191 Hours

*Natural Science Electives (12 hour sequence) from one of the following sequences: Biology 1210-20-30; Chemistry 1510-20-30; Physics 1410-20-30; Botany 1110-20, 1140.
*An area which directly reinforces the major chosen from: ornamental horticulture and landscape design; history; textiles; art; architecture; business administration; child and family studies.

OPTIONS IN CRAFTS

The curricular in crafts offers two options, general crafts and crafts specialization in one of the following media: fiber, metal, wood, or clay. Students in the professional crafts program (option 3 and 4) will follow the same curriculum during their freshman and sophomore years and may choose optional courses of study during their junior and senior years.

Graduate and undergraduate students in the area of crafts have an unique opportunity to participate in the summer program at the Pi Beta Phi Arromwork School of Crafts, Gatlinburg, Tennessee; credit is granted through The University of Tennessee, Knoxville. Instructors at the school are nationally and internationally recognized designer-craftspersons who offer, in many instances, different approaches to those of the resident faculty; this further enriches the student's program of study. Craft courses are not offered on the Knoxville campus in the summer quarter. Therefore, students attending UT during the summer for crafts study are required to attend the Pi Beta Phi Arromwork School of Crafts and to pay the additional registration, tuition, and laboratory fees required by that school.

OPTION 3. GENERAL CRAFTS

<table>
<thead>
<tr>
<th>Freshman</th>
<th>Hours Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Home Economics 1510</td>
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</tr>
<tr>
<td>Home Economics 1520</td>
<td>4</td>
</tr>
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<td>Chemistry 1510-20-30</td>
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<tr>
<td>English 1510-20</td>
<td>8</td>
</tr>
<tr>
<td>Art 1815-25</td>
<td>8</td>
</tr>
<tr>
<td>Art History Elective</td>
<td>4</td>
</tr>
<tr>
<td>Psychology 2500</td>
<td>4</td>
</tr>
<tr>
<td>CDID 1419</td>
<td>2</td>
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</table>

<table>
<thead>
<tr>
<th>Sophomore</th>
<th>Hours Credit</th>
</tr>
</thead>
<tbody>
<tr>
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<td>4</td>
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<td>English 2510-20</td>
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<tr>
<td>Sociology 1510</td>
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<tr>
<td>CDID 2210</td>
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<tr>
<td>Economics 2110-20</td>
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<tr>
<td>CDID 3130</td>
<td>3</td>
</tr>
<tr>
<td>CDID Craft Electives (Beginning)</td>
<td>8</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Junior</th>
<th>Hours Credit</th>
</tr>
</thead>
<tbody>
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<tr>
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</tr>
<tr>
<td>Art Education 4150</td>
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</tr>
<tr>
<td>Art 2515 or 2415</td>
<td>4</td>
</tr>
<tr>
<td>CDID 3110</td>
<td>4</td>
</tr>
<tr>
<td>Speech 2311 or Journalism 2210</td>
<td>4 or 3</td>
</tr>
<tr>
<td>CDID Craft Electives (Beginning and Advanced)</td>
<td>16</td>
</tr>
<tr>
<td>Electives</td>
<td>16 or 17</td>
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TOTAL: 190 Hours

OPTION 4. CRAFTS SPECIALIZATION (Fiber, Metal, Wood and Clay)

<table>
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<th>Hours Credit</th>
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</thead>
<tbody>
<tr>
<td>Home Economics 1510</td>
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<tr>
<td>Home Economics 1520</td>
<td>4</td>
</tr>
<tr>
<td>Chemistry 1510-20-30</td>
<td>12</td>
</tr>
<tr>
<td>English 1510-20</td>
<td>8</td>
</tr>
<tr>
<td>Art 1815-25</td>
<td>8</td>
</tr>
<tr>
<td>Art History Elective</td>
<td>4</td>
</tr>
<tr>
<td>Psychology 2500</td>
<td>4</td>
</tr>
<tr>
<td>CDID 1419</td>
<td>2</td>
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</table>

<table>
<thead>
<tr>
<th>Sophomore</th>
<th>Hours Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Home Economics 2510</td>
<td>4</td>
</tr>
<tr>
<td>English 2510-20</td>
<td>8</td>
</tr>
<tr>
<td>Sociology 1510</td>
<td>4</td>
</tr>
<tr>
<td>CDID 2210</td>
<td>4</td>
</tr>
<tr>
<td>Art 1115-25-35</td>
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<tr>
<td>Economics 2110-20</td>
<td>6</td>
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<tr>
<td>CDID 3130</td>
<td>3</td>
</tr>
<tr>
<td>CDID Craft Electives (Beginning)</td>
<td>8</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Junior</th>
<th>Hours Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Home Economics 3510</td>
<td>4</td>
</tr>
<tr>
<td>CDID 4410</td>
<td>4</td>
</tr>
<tr>
<td>Art Education 4150</td>
<td>4</td>
</tr>
<tr>
<td>Art 2515 or 2415</td>
<td>4</td>
</tr>
<tr>
<td>CDID 3110</td>
<td>4</td>
</tr>
<tr>
<td>Speech 2311 or Journalism 2210</td>
<td>4 or 3</td>
</tr>
<tr>
<td>CDID 4410</td>
<td>4</td>
</tr>
<tr>
<td>CDID Craft Electives (Beginning and Advanced) including 8 hours in area of concentration</td>
<td>16</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Senior</th>
<th>Hours Credit</th>
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</thead>
<tbody>
<tr>
<td>CDID 4130</td>
<td>3</td>
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<tr>
<td>CDID 4310</td>
<td>3</td>
</tr>
<tr>
<td>Art History and/or Education Electives</td>
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<tr>
<td>CDID Craft Electives (Beginning and Advanced) including 8 hours in area of concentration</td>
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</tr>
<tr>
<td>Humanities and Social Science Electives</td>
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</tr>
<tr>
<td>Electives</td>
<td>12 or 13</td>
</tr>
</tbody>
</table>

TOTAL: 190 Hours

PROFESSIONAL CURRICULUM IN THE DEPARTMENT OF FOOD SCIENCE, NUTRITION, AND FOOD SYSTEMS ADMINISTRATION

Entering freshmen interested in Options 1, 2, 3, or 4 will be enrolled as departmental majors and a departmental adviser will be assigned to assist with planning freshman courses. Students will not register in a particular option until their third quarter in residence. They will apply for admission to a specific option by April 1. Designation of an option for each applicant will be made by a faculty committee by May 15, and each student will be assigned to an adviser associated with the chosen option. A second choice of option will be required if Option 4 is the first choice. If a student is listed as an alternate for first choice of option, admission may be reconsidered at a later date. Applications may be considered periodically as openings occur.

Transfer students must apply to the Director of Admissions and be admitted to the University of Tennessee, Knoxville, before initiating the application procedure for admission to Options 1, 2, 3, or 4.

OPTION 1. FOOD SCIENCE

The food science curriculum is concerned with relating the cultural and scientific aspects of food science to people and their environment. Emphasis is placed on the application of the social sciences to world feeding problems, consumer reaction to food acceptability and marketing problems; application of the physical sciences is made in the study of food composition and properties and changes associated with processing, preparation, and storage. This curriculum prepares students for positions in food product development and evaluation in industry and government, work in communications media or for direct entrance into a Master's degree program needed for college teaching and research. Information concerning modifications necessary to meet academic requirements of the American Dietetic Association is available from the department.

<table>
<thead>
<tr>
<th>Freshman</th>
<th>Hours Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chemistry 1110-20-30 or 1510-20-30</td>
<td>12</td>
</tr>
<tr>
<td>English 1510-20</td>
<td>8</td>
</tr>
<tr>
<td>Food Science 1010</td>
<td>4</td>
</tr>
<tr>
<td>Home Economics 1510</td>
<td>4</td>
</tr>
<tr>
<td>Home Economics 1520</td>
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</tr>
<tr>
<td>Mathematics 1540-50 or 1840-50</td>
<td>8</td>
</tr>
<tr>
<td>Psychology 2500</td>
<td>4</td>
</tr>
<tr>
<td>Electives</td>
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</tbody>
</table>

College of Home Economics
### Application and selection by a faculty committee required to enter Sophomore year.

<table>
<thead>
<tr>
<th>Sophomore</th>
<th>Hours</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Economics 2110, 2130</td>
<td>6</td>
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</tr>
<tr>
<td>'English 2510 or 2520 or 2530 or 2540</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>Food Science 2510</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Home Economics 2510</td>
<td>4</td>
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<tr>
<td>Journalism 2210</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Microbiology 2010</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>Speech 2311</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>Zoology 2920-30</td>
<td>8</td>
<td></td>
</tr>
<tr>
<td>Electives</td>
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<td>188</td>
</tr>
</tbody>
</table>

**TOTAL: 188 Hours**

- Or English 2560 or 2570 or 2580.

### OPTION 3. COMMUNITY NUTRITION

This curriculum is designed for those students interested in community services or graduate work in public health nutrition.

<table>
<thead>
<tr>
<th>Freshman</th>
<th>Hours</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chemistry 1110-20-30 or 1510-20-30</td>
<td>12</td>
<td>12</td>
</tr>
<tr>
<td>English 1510-20</td>
<td>8</td>
<td></td>
</tr>
<tr>
<td>Food Science 1010</td>
<td>3</td>
<td></td>
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<tr>
<td>Home Economics 1510</td>
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<td>4</td>
<td></td>
</tr>
<tr>
<td>Mathematics 1540</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>Nutrition 1230</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Psychology 2500</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>Sociology 1510</td>
<td>4</td>
<td></td>
</tr>
</tbody>
</table>

**TOTAL: 190 Hours**

- Or English 2590 or 2570 or 2580.

- Or 4800 or 4978 by arrangement with instructor.

### OPTION 2. NUTRITION SCIENCE

This curriculum provides in-depth training in the basic biological sciences as well as nutrition. This option is designed for students who are interested in graduate study to become college teachers and researchers or who are interested in graduate study and/or a dietetic internship, to become a clinical nutrition specialist.

<table>
<thead>
<tr>
<th>Freshman</th>
<th>Hours</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chemistry 1110-20-30 or 1510-20-30</td>
<td>12</td>
<td>12</td>
</tr>
<tr>
<td>English 1510-20</td>
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<tr>
<td>Food Science 1010</td>
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<td>Home Economics 1510</td>
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<td>Home Economics 1520</td>
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<tr>
<td>Mathematics 1540</td>
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<td>Nutrition 1230</td>
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<td>Psychology 2500</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>Sociology 1510</td>
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<td></td>
</tr>
</tbody>
</table>

**TOTAL: 190 Hours**

### SOPHOMORE

<table>
<thead>
<tr>
<th>Sophomore</th>
<th>Hours</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Economics 2110-20 or 30</td>
<td>6</td>
<td></td>
</tr>
<tr>
<td>'English 2510 or 2520 or 2530 or 2540</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>Home Economics 2510</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Journalism 2210</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Nutrition 3310-20-30-39</td>
<td>12</td>
<td></td>
</tr>
<tr>
<td>Physical Education Activity Elective</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>Speech 2311</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>Zoology 2920-30</td>
<td>8</td>
<td></td>
</tr>
<tr>
<td>Electives</td>
<td>4</td>
<td>15</td>
</tr>
</tbody>
</table>

**TOTAL: 188 Hours**

- Or English 2560 or 2570 or 2580.

### JUNIOR

| Anthrology 2530      | 4     |        |
| Educational Psychology 3110 | 4 |        |
| Food Science 2510    | 3     |        |
| Food Systems Administration 3320 | 3 |        |
| Home Economics 3510  | 4     |        |
| Microbiology 2010    | 4     |        |
| Nutrition 3410       | 5     |        |
| Plant and Soil Science 3610 | 3 |        |
| Zoology 3050-60, 3920 | 13    |        |
| Electives            | 7     |        |

### Graduate Program in Dietetics (ADA)

The Graduate Program in Dietetics is a generalist program, training entry-level dietitians in administrative and clinical dietetics, and is accredited by the American Dietetic Association (ADA). The program incorporates the equivalent of a fifth year dietetic internship into a four-year academic curriculum. The curriculum includes a two-year preprofessional sequence that meets general education requirements and prerequisites for professional courses, and a professional phase in the junior and senior years. The junior year provides an introduction to dietetics, basic knowledge in food science, nutrition, and food systems administration, and research techniques. The senior or fourth year consists of advanced work in dietetics. During the professional phase, academic courses are coordinated with planned experiences in selected hospitals and community facilities.

### Admission and Progression Policies

A student may be admitted to the program at any stage provided all requirements or equivalents of the program up to that time, as well as University of Tennessee and College of Home Economics standards, have been satisfactorily met. Preprofessional courses may be taken at the University of Tennessee, Knoxville, or any accredited junior or senior college or community college. The program has been planned to permit transfer students to apply prior to the beginning of the junior year. Applications should be made to the Program Director by April 1.

Criteria for selection include (1) evidence that the student will successfully complete the two-year preprofessional phase; (2) an overall GPA of 2.2 or higher; (3) personal interview; and (4) recommendations from faculty of selected preprofessional courses. The number of qualified students accepted into the Coordinated Graduate Program in Dietetics is contingent on the number of clinical sites available. Criteria for admission must be maintained throughout the preprofessional phase. Exception to criteria may be made by petition to the Program Director. Criteria for progression in the professional phase junior and senior years will include (1) satisfactory completion of each required professional course as scheduled with a minimum grade of C; (2) periodic evaluation of competency-level by academic and clinical faculty; (3) periodic evaluation of professional competency by peers; and (4) participation in voluntary professional activities. The maximum credit hours per quarter carried should not exceed 18 hours without special permission from the Program Director. Exceptions to the above may be made by petition to the Program Director.

Upon satisfactory completion of the program, students receive the Bachelor of Science Degree in Home Economics, and are eligible for membership in the American Dietetic Association and to apply for the registration examination to qualify as a Registered Dietitian (R.D.)
A student unable to enter or to complete the Coordinated Undergraduate Program in Dietetics (Option 4) may select Food Science (Option 1), Nutrition Science (Option 2), or Community Nutrition (Option 3) to fulfill the academic requirements for a dietetic internship or traineeship. Upon completion of the academic requirements and the dietetic internship or traineeship, students would be eligible for membership in the American Dietetic Association and to apply for the registration examination to qualify as a Registered Dietitian (R.D.).

### Freshman

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chemistry 1510-20-30</td>
<td>12</td>
</tr>
<tr>
<td>English 1510-20</td>
<td>8</td>
</tr>
<tr>
<td>Food Science 1010</td>
<td>4</td>
</tr>
<tr>
<td>Home Economics 1510-20</td>
<td>8</td>
</tr>
<tr>
<td>Mathematics 1540</td>
<td>4</td>
</tr>
<tr>
<td>Sociology 1510</td>
<td>4</td>
</tr>
<tr>
<td>Psychology 2500</td>
<td>4</td>
</tr>
<tr>
<td>Speech 2311 or Journ. 2210</td>
<td>4 or 3</td>
</tr>
</tbody>
</table>

Application and selection by a faculty committee required to enter sophomore year.

### Sophomore

<table>
<thead>
<tr>
<th>Course</th>
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</thead>
<tbody>
<tr>
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<tr>
<td>Nutrition 3000, 3330-40</td>
<td>8</td>
</tr>
<tr>
<td>English 2510 or 2520 or 2530 or 2540</td>
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<tr>
<td>Food Science 2510</td>
<td>4</td>
</tr>
<tr>
<td>Microbiology 2510</td>
<td>4</td>
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<tr>
<td>Zoology 2920-30</td>
<td>8</td>
</tr>
<tr>
<td>Economics 2110, 2130</td>
<td>6</td>
</tr>
<tr>
<td>Accounting 2210 or Computer Science 1410 or Plant and Soil Science 3610 or Statistics 2100</td>
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<tr>
<td>Electives</td>
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</table>

### Junior

<table>
<thead>
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</thead>
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</tr>
<tr>
<td>Nutrition 3410-11, 3920, 4230-31</td>
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<tr>
<td>Food Systems Administration 3110, 3920, 4150</td>
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<tr>
<td>Home Economics 3510</td>
<td>9</td>
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<tr>
<td>Psychology 4460 or Economics 3420</td>
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### Senior

<table>
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<tbody>
<tr>
<td>Anthropology 4250</td>
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<tr>
<td>Food Systems Administration 4130, 4140, 4250</td>
<td>9</td>
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<tr>
<td>Food Systems Administration 4410, 4420, 4430</td>
<td>9</td>
</tr>
<tr>
<td>Food Systems Administration 4421</td>
<td>9</td>
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<tr>
<td>Nutrition 4240-41, 4030-31</td>
<td>11</td>
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<tr>
<td>Nutrition 4440</td>
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<tr>
<td>Food Science 4000</td>
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</tbody>
</table>

TOTAL: 190 Hours

### OPTION 5. FOOD AND LODGING ADMINISTRATION

The food and lodging administration curriculum is concerned with meeting the expressed top management needs of the food and lodging industry. This curriculum will provide a professional program for both men and women which will assist students to gain broad knowledge base, perspective, flexibility, and creativity to meet the changing environment of complex management problems in the food and lodging industry of today.

### Freshman

<table>
<thead>
<tr>
<th>Course</th>
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<tbody>
<tr>
<td>Natural Science Electives</td>
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<td>English 1510-20</td>
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<tr>
<td>Food Science 1010</td>
<td>3</td>
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<tr>
<td>Economics 2110</td>
<td>3</td>
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<tr>
<td>Nutrition 1230</td>
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### Sophomore

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<th>Course</th>
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<tbody>
<tr>
<td>Statistics 2100</td>
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<tr>
<td>Home Economics 2510</td>
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<tr>
<td>English 2510 or 2520 or 2530 or 2540</td>
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</tr>
<tr>
<td>Microbiology 2510</td>
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<tr>
<td>Accounting 2110-20</td>
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<td>Food Systems Administration 2310</td>
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<tr>
<td>Sociology 1510</td>
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<td>Psychology 2500 or 2530</td>
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<td>Food Systems Administration 3110</td>
<td>3</td>
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<tr>
<td>Speech 2311</td>
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### Junior

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<tbody>
<tr>
<td>Food Science 4000 or 4040 or 2510*</td>
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<tr>
<td>Food Systems Administration 4130, 4150, 4250</td>
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<tr>
<td>Crafts, Interior Design &amp; Housing 3110</td>
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<tr>
<td>Economics 3420</td>
<td>3</td>
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<tr>
<td>Textiles &amp; Clothing 3330</td>
<td>3</td>
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<tr>
<td>Marketing 3110-20</td>
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<tr>
<td>Accounting 2210</td>
<td>3</td>
</tr>
<tr>
<td>Computer Science 1410</td>
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<td>Electives</td>
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### Senior

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<tbody>
<tr>
<td>Home Economics 3510</td>
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<tr>
<td>Business Law 4110</td>
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<td>Food Systems Administration 4140</td>
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<td>Food Systems Administration 4270</td>
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<td>Electives</td>
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TOTAL: 190 Hours

### Professional Curriculum in Vocational Home Economics Education

The curriculum in vocational home economics education is planned in cooperation with the College of Education. Successful completion of the requirements of this curriculum results in recommendation for certification to teach vocational home economics in secondary schools in Tennessee.

Total requirements for admission to teacher education, to student teaching and for Recommendation for Certification are listed on page 94. The State Board for Vocational Education and the United States Office of Education approve programs for vocational education. Only students who have a major in the vocational home economics education curriculum meet certification requirements; students who have a major in other curricula in the College of Home Economics do not meet certification requirements.

All freshman, sophomore, and junior required courses must be completed before a student engages in student teaching. Home Economics Education 4240 should be scheduled within one of the two quarters immediately preceding the quarter in which student teaching is scheduled. This curriculum will prepare students for graduate study in home economics education; however, it is not a requirement for graduate study in home economics education.

### Freshman

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours Credit</th>
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<tbody>
<tr>
<td>Chemistry 1510-20-30</td>
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<td>Mathematics 1540-50</td>
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<td>Nutrition 1230</td>
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### Sophomore

<table>
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<td>Electives</td>
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<td>Literature elective</td>
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<td>Social Science electives</td>
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### Junior

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<tr>
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<td>Ed. C &amp; I 3029-30*</td>
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<td>Education electives</td>
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<tr>
<td>Ed. Psych. 3810</td>
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<td>Electives</td>
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<td>Food Science 3020</td>
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<td>H. Ec. Educ. 4310</td>
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<tr>
<td>CFS 3420 or 4210 or 4830</td>
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<tr>
<td>Nutrition 3060</td>
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<td>CIDH 3110</td>
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<td>Text. &amp; Cl. 3420</td>
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### Senior

<table>
<thead>
<tr>
<th>Course</th>
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<tbody>
<tr>
<td>Electives</td>
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<td>H. Ec. Educ. 4240</td>
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<td>H. Ec. Educ. 4310, 4610</td>
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<td>CFS 4440</td>
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<td>Nutrition 4050</td>
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<td>CIDH 4410</td>
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<td>Text. &amp; Cl. 3440</td>
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</table>

TOTAL: 190 Hours

*13-14 hours of electives can be used for additional endorsement in one of two options in occupational areas: Option 1. Food Services, or Option 2. Child Care Services. If occupational endorsement is not sought, 9 hours of electives are to be selected in additional home economics subject matter.

*Choose courses in history, anthropology, geography, political science, sociology, or Child and Family Studies 2110.

*Requires admission to Teacher Education Program.

### OPTION 1. FOOD SERVICES

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours Credit</th>
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<tbody>
<tr>
<td>Food Science 2510</td>
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<td>Food Systems Administration 3110</td>
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<tr>
<td>Food Systems Administration 3320</td>
<td>2</td>
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<tr>
<td>H. Ec. Education 4509</td>
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### OPTION 2. CHILD CARE AND GUIDANCE ENDORSEMENT

<table>
<thead>
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<th>Course</th>
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<tbody>
<tr>
<td>CFS 3110, 3120</td>
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<td>CFS 4420 or 4610</td>
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<tr>
<td>HEED 4509</td>
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### OPTION 3. CLOTHING MANAGEMENT, PRODUCTION AND SERVICES

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<tr>
<th>Course</th>
<th>Hours Credit</th>
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<tbody>
<tr>
<td>Text. &amp; Cl. 3460 or 3470 or 4240</td>
<td>3</td>
</tr>
<tr>
<td>Text. &amp; Cl. 2110 or 3510</td>
<td>3</td>
</tr>
<tr>
<td>Text. &amp; Cl. 4100 or 4120</td>
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<tr>
<td>H. Ec. Education 4509</td>
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</table>

*Recommended Course
College of Home Economics

Professional Curriculum in Textiles and Clothing

OPTION 1. MERCHANDISING
This curriculum is appropriate for students wishing to prepare for positions in merchandising of apparel and/or fabrics, fashion writing, and in public relations with pattern companies and manufacturers of textile products.

Freshman  Hours  Credit
Chemistry 1510-20-30, or 1110-20-30  12
English 1510-20  8
Home Economics 1510  4
Psychology 2550  4
Home Economics 1520  4
Text. & Clo. 1160  2
Text. & Clo. 1155  3
Text. & Clo. 2110  3
Sociology 1510  4
Elective  3

Sophomore
Chemistry 3211-19 or Nutrition 3310  4
English 2510 or 2520 or 2530 or 2540 (Choose two)  6
Home Economics 2510  4
Mathematics 1540-50-60 or 1640-50-60  12
Sociology 1510  4
Text. & Clo. 3440  4
Zoology 2920-30  8
Electives  6

Junior
Economics 2110, 2130  6
Humanities Electives  3
Journalism 2210  3
Physics 2210-20 or 1210-20  8
Statistics 2210 or 3450  3
Home Economics 3510  4
Electives  15

Senior
CFS 4340  3
CIDI 2430, 3130  6
Text. & Clo. 3440, 3450, 3480, 5220 (Choose Three)  9
Text. & Clo. 4220  4
Text. & Clo. 4120, 4140, 4210  12
Electives  14

TOTAL: 191 Hours

Graduate Study Programs in the College of Home Economics

Graduate study programs lead to the degree of Master of Science with a major in child and family studies; consumer studies and housing; public policy; crafts, interior design, and housing; food science; food systems administration; home economics education; nutrition; and textiles and clothing. Graduate study programs lead to the degree of Doctor of Philosophy in Home Economics with three options: Interdisciplinary, Food Science, and Nutrition. Food systems administration may be taken as a concentration in the food science doctoral option. Graduate programs provide advanced specialized training as needed in each area for College and University teaching, for leadership positions in governmental and professional agencies and in the various professions in business, for secondary school and adult teaching, for research and for extended services.

Student assistantships, fellowships, and general requirements for admission to graduate study may be obtained from the department head in the area of the student's major interest or the Dean of the College of Home Economics for the Interdisciplinary doctoral option.

An application for admission and two official transcripts should be submitted directly to the Graduate School. In addition, application is made to the Dean of the College of Home Economics. Those students desiring to major in child and family studies, the interdisciplinary doctoral option, or home economics education are required to take the Graduate Record Examination.

For a complete description of the Graduate Program in the various areas of home economics, see the Graduate School Catalog, including the list of available major and minor areas.

Departments of Instruction

Numbers in parentheses following the course titles indicate quarter hours credit offered.

Child and Family Studies (245)

Professors:
J. L. Kulpers (Head), Ph.D. Michigan State; C. Beasley (Emeritus), Ed.D. Columbia; M. L. Bishop (Emeritus), Ph.D. Cornell; R. L. Hightberger, Ph.D. Iowa; E. L. Speer (Emeritus), M.A. Columbia.

Associate Professors:

Assistant Professors:
K. M. Kainkowski, Ph.D. Massachusetts; B. C. Miller, Ph.D. Minnesota; L. M. Rawlings, Ph.D. Pennsylvania State; H. M. Reed, M. S. Tennessee; P. B. Scott, M. S. Ohio State; L. E. Southworth, Ed. S. Tennessee; S. L. Twardosz, Ph.D. Kansas; P. White, Ed. Tennessee.

Instructors:
A. E. Henderson, M.S. Cornell; N. RIeman, M.S. Kansas State.

1120 Management and Its Contribution to Family Living (3) Decision-making process, relationships among decisions; principles of organization for implementing decisions; evaluation procedures; factors affecting management processes; applications of management principles to: Columbia; M. L. Bishop (Emeritus), Ph.D. Cornell; R. L. Hightberger, Ph.D. Iowa; E. L. Speer (Emeritus), M.A. Columbia.

1500 Introduction to Early Education (3) Analysis of principles and operation of early education programs for children ages 0-6. Field trips required.

2110 Human Socialization (3) Human development with emphasis on socialization process from infancy through adolescence in family, school and peer group settings. 3 hrs. An additional lab (2 hrs) for majors.

2120 Male-Female Relations (3) Examination of issues and development of communication skills and roles involved in relating to opposite sex. (Not open to majors.)

2410 Human Sexuality (3) Dimensions of human sexuality as examined through cultural, social, and psychological influences.

3110 Program Planning (4) Philosopher of pre-school education. Analysis of program and teacher-child interaction. Observation-Measurement Laboratory. Prereq: 3210 or equivalent. 3 hours and 1 lab.

3120 Aesthetic Experiences (3) Examination of subject matter areas—quantity and logic, art, music, literature, science. Prereq: 3110.

3125 Day Care Programming for Infants and Preschool Children (3) Program planning for children from early infancy through six years in day care environments. Prereq: 3210 or equivalent.

3210 Child Development I (3) Comprehensive view of the child 2 to 8 years of age. Analysis of interpersonal relationships among various aspects of development: physical, cognitive, emotional and social. Prereq: 2110 or Home Economics 1510 or 3 hours psychology. 3 hrs. 1 hour observation per week.
eral awareness of immediate environment. Prereq: or coreq.: Home Economics 1520. Required of students specializing in crafts and interior design.

2110 Fundamentals of Interior Design (3) Drawing skills, symbols, terminology, and techniques used in interior design. Prereq.: 1410. 1 hr. and 2 labs.

2111 Design of Interior Spaces (3) Interior design in two and three dimensions, additional emphasis on symbols, tools and design terminology. Prereq.: 2110 or consent of instructor. 1 hr. and 2 labs.

2112 Color in Interior Design (3) Application of color to the interior; development of skills for various media and tools used in color planning; effects of color on interiors. Prereq.: 2111 or consent of instructor. 2 hrs. and 1 lab.

2115 Fundamentals of Interior Design I (6) Introduction to basic drafting techniques, symbols and terminology used in interior design presentations.

2116 Fundamentals of Interior Design II (6) Residential space planning of micro-environments with special emphasis on perspective and rendering techniques as a means of communication of design solutions. Opportunity for individual experimentation.

2210 Creative Design (4) Comparison and criticism of various techniques and criteria for evaluating design within the limits of appropriateness; appreciation of basic art principles in selecting and combining objects; original design with emphasis on total space, texture, color, and different methods for creating effective designs. Prereq.: 1410 or equivalent. 1 hr. and 2 labs.

2430 Equipment in the Home (3) Principles underlying the operation and construction of household equipment; processes and supplies involved in using and caring for equipment; recent developments and their estimation of costs; simple maintenance. 1 hr. and 2 labs.

3110 Beginning Interior Design (3) Individual and design factors influencing selection, arrangement and combination of furnishings to derive the greatest satisfaction from homes and places of work. Prereq.: 1410 or equivalent. 1 hr. and 2 labs.

3120 Historic Interiors (3) Furniture and interiors of the past as influenced by social, economic and political background, recent adaptations of historic design.

3125 Historic Interiors (5) Survey of the history of interior design and decorative arts of various cultures. Emphasis on stylistic analysis and relation of design to cultural, economic, and political factors.

3130 Color (3) Experimentation in color systems and their significance to the home economist. Effective use of color sources in display, costume, and interior design for personality expression. 1 hr. and 2 labs.

3250 Residential Interiors I (3) Studio work dealing with limited living areas; efficiency apartments, mobile homes; design analysis and planning. Prereq.: 2112 or consent of instructor. 1 hr. and 2 labs.

3251 Residential Interiors II (3) Residential interiors, floor plans and perspectives; emphasis on interior design related to the client. Prereq.: 3250 or consent of instructor. 1 hr. and 2 labs.

3252 Commercial Interiors (3) Understanding relationship of interior spaces to commercial structures such as offices and shops; commercial design analysis and planning. Prereq.: 3251 or consent of instructor. 1 hr. and 2 labs.

3255 Residential Interiors I (6) Design of single family residential structure based on analysis of occupant's lifestyle and environment needs; includes production of detailed construction drawings and specification of interior furnishings and finishes. Prereq.: 116 or permission of instructor.

3256 Residential Interiors II (6) Studio problems dealing with residential interiors other than single family detached dwelling; includes; high-rise apartment condominium; hotel, dormitory, remodeling existing structures, etc. Emphasis on working with individual's and/or family's specific needs and budget. Prereq.: 3255 or permission of instructor.

3260 Professional Procedures (3) Preparation of interior design majors for in-field training. Emphasis on business practices and procedures as related to interior design. Prereq.: Junior standing, interior design majors, and consent of department.

3310 Metal Design I (4) Experimenting with metals and techniques, stressing relationship of design to function, processes, materials and use of tools. Prereq.: 1410 or equivalent. 1 hr. and 2 labs.

3320 Metal Design II (4) Principles of metal design; possibilities and limitations of materials, techniques, tools and equipment. Relationship of design to process; imaginative use of art elements in metal design. 1 hr. and 2 labs.

3330 Metal Design III (4) Advanced experiences in metalwork, emphasizing relationship of design to process and imaginative use of art elements in metal design. Prereq.: 3320 or equivalent. 1 hr. and 2 labs.

3410 Weaving I (4) Creative design in elementary weaving; principles and techniques, stressing relationship of design to function, processes, materials and use of tools. Prereq.: 1410 or equivalent. 1 hr. and 2 labs.

3420 Weaving II (4) Same as 3410 except designing, techniques and limitations are explored in rug weaving. 1 hr. and 2 labs.

3430 Weaving III (4) Advanced weaving techniques with exploration of pattern, color and texture using various weft and warp combinations. Prereq.: 3420 or equivalent. 1 hr. and 2 labs.

3440 Demonstration Techniques In Household Equipment (3) Planning and presenting equipment demonstrations emphasizing performance, maintenance and cost; developing and using visual-aids. Prereq.: Speech 2311. 1 hr. and 2 labs.

3510 Textile Design (4) Fundamental principles of textile design, using a wide range of processes and materials. Emphasis on silkscreen and blockprint methods. Prereq.: 1410 or equivalent.

3520 Textile Design (4) Study of resist processes in textile design, Foid, dye, batik, and resin resist methods are emphasized. Woven and contemporary designers in the field are discussed, as well as examples from the past. Prereq.: 1410 or equivalent.

3530 Fabric Structures (4) Design and construction of fabric structures through use of non-weaving processes: looping, interlocking, coiling, interknotting, interlinking, and twining. In- vestigating the use of non-weaving processes utilized in development of fabric structures. Study of various historical and traditional aspects of non-weaving processes and their potential to utilizing non-weaving processes in design. Prereq.: 1410 or equivalent. May be repeated. Maximum credit 12 hours.

3610 Wood Design (4) Basic skills and appreciation for design developed through wood carving and the making of small household objects and toys. Prereq.: 1410 or equivalent. 1 hr. and 2 labs.

3620 Wood Design (4) Continuation of 3610. 1 hr. and 2 labs.

3710 Enameling I (4) Exploring possibilities and limitations of vitreous enamels. Designing and creating enamelled metalwork and jewelry using a variety of materials and techniques. Contemporary and past enameling. Prereq.: 1410 or equivalent. 1 hr. and 2 labs.

3720 Enameling II (4) Advanced techniques; exploration of design. Further study of art of enamelist, past and present. Prereq.: 3710 or equivalent. 1 hr. and 2 labs.

4110 Home Wiring and Lighting Requirements (3) Service of electricity in modern homes; evaluation of lighting and wiring plans in terms of family desires and need for equipment. 1 hr. and 2 labs.

4130 Contemporary Design (3) Furnishings and interiors; economics, technological and sociological influences on development of design; changing living conditions; interrelation of architecture and furnishings. Significant designers and their work.

4140 Exhibition Design (4) Display of craft and interior design problems in relation to materials, props, and special exhibition area. Emphasis on knowledge and application of design principles as they relate to promotion, design construction, display and evaluation for two and three dimensional display. Annual student craft and interior design exhibition culminates quarter. Prereq.: 1410 or equivalent.

4150 Interior Space Planning I (3) Studies in large scale commercial interior design; apartment houses, offices, buildings. Junior rating, interior factors that influence design of concentrated and mass spaces. Prereq.: 3252 or consent of instructor. 1 hr. and 2 labs.

4151 Interior Space Planning II (3) People as related to therapeutic values. Laboratory spaces, homes, trains, ships; relationship of design to materials and movements of people in their environment. Prereq.: 4150 or consent of instructor. 1 hr. and 2 labs.

4152 Interior Space Planning III (3) Interior design evaluation as related to contemporary technology and materials emphasizing relationship to environmental planning. Emphasis on individual projects. Prereq.: 4151 or consent of instructor. 1 hr. and 2 labs.

4155 Interior Space Planning II (6) Analysis, planning and design of commercial interiors. Includes contract work. Prereq.: 3256 or equivalent.

4156 Interior Space Planning II (8) Studio problems involving large scale residential interior spaces such as restaurants, transportation facilities, stores, institutions, etc. Prereq.: 4155 or permission of instructor.

4260 Professional Practice (15) Supervised field experience in establishments engaged in practice of interior design. Prereq.: Junior standing, interior design majors, 3260, and consent of department.

4310 Crafts in America (3) Craft movement; factors that contribute to growth and development. Educational, social, economic, recreational and aesthetic values of the craft in American society as producer, teacher, designer for industry.

4320 Family Housing Problems (3) Housing requirements of families. Reading and judging house plans; effective use of space; maintenance problems; housing regulations and restrictions; site selection and neighborhood development; financing procedures. Prereq.: 6 hrs from Economics 2110-20-30.

4330 Care and Repair of Household Equipment (3) Care of equipment to give maximum service in relation to operation and service cost; understanding of common repair problems. Prereq.: 2430. 1 hr. and 2 labs.

4410 Craft Media (4) Possibilities and limitations of variety of craft media: understanding educational and social values of craft work. Designing and executing craft problems using inexpensive materials and tools. 3 labs.

4420 Leather Design (4) Relationship to design of functional, techniques, and techniques of leather objects of original design. Prereq.: 1410 or equivalent. 1 hr. and 2 labs.

4430 Plastics (4) Possibilities and limitations of various plastics; methods of fabrication; relation of design to function, economics of means of use and use of tools. Prereq.: 1410 or equivalent. 1 hr. and 2 labs.

4510 Ceramics I (4) Possibilities and limitations of clay bodies, techniques and use of tools. Designing and making pottery forms using coil, slab and throwing techniques; decorating by slip, underglaze, glaze, incising and embossing; preparation of simple glazes; setting and firing kilns. Prereq.: 1410 or equivalent. 1 hr. and 2 labs.
4520 Ceramics II (4) Further study in designing, building, decorating, preparing glazes and firing. Role of the potter, past and present. Prereq: 4510 or equivalent. 1 hr and 2 labs.

4530 Ceramics III (4) Advanced design and relation to function, materials, tools and techniques. Further study of history of pottery and contributions of contemporary ceramist to art, architecture and industrial design. 1 hr and 2 labs.

4610 Studio Problems in Interior Design (3) Problems for seniors with special ability and interest in interior design. May be repeated to a maximum of 9 hrs. Prereq: Senior standing and permission of department.

4620 Studio Problems in Leather Design (4) Problems for juniors and seniors with special ability and interest in leather design. May be repeated to a maximum of 12 hrs. Prereq: 12 hrs of leather design or equivalent and permission of department.

4630 Studio Problems in Metal Design (4) Problems for juniors and seniors with special ability and interest in metal design. May be repeated to a maximum of 12 hours. Prereq: 12 hrs of metal design or equivalent and permission of department.

4640 Studio Problems in Weaving (4) Problems for juniors and seniors with special ability and interest in weaving. May be repeated to a maximum of 12 hrs. Prereq: 12 hrs of weaving or equivalent and permission of department.

4650 Studio Problems in Textile Design (4) Problems for juniors and seniors with special ability and interest in textile design. May be repeated to a maximum of 12 hrs. Prereq: 8 hrs of textile design or equivalent and permission of department.

4655 Studio Problems in Fabric Structures (4) Advanced problems in fabric structures for juniors and seniors with special ability and interest in fabric structures. Emphasis on in-depth research and creative problem solving in one or several areas of fabric structures. May be repeated. Maximum credit 12 hrs. Prereq: 4 hrs of fabric structures (or equivalent) and permission of department head.

4660 Studio Problems in Wood Design (4) Problems for juniors and seniors with special ability and interest in wood design. May be repeated to a maximum of 12 hrs. Prereq: 8 hrs of wood design or equivalent and permission of department.

4670 Studio Problems in Enameling (4) Problems for juniors and seniors with special ability and interest in enameling. May be repeated to a maximum of 8 hrs. Prereq: 8 hrs of enameling or equivalent and permission of department.

4680 Studio Problems in Plastics (4) Problems for juniors and seniors with special ability and interest in plastics. May be repeated to a maximum of 12 hrs. Prereq: 4 hrs of plastics or equivalent and permission of department.

4690 Studio Problems in Ceramics (4) Problems for juniors and seniors with special ability and interest in ceramics. May be repeated to a maximum of 12 hrs. Prereq: 4 hrs of ceramics or equivalent and permission of department.

4710 Contemporary Developments (1-4) Student or staff initiated course for study of special topics pertinent to the field, topics selected to be determined by students and instructor with departmental approval. Elective credit only. May be repeated with permission of department. Maximum credit 12 hours. Prereq: Permission of instructor.

4986 Honors: Crafts (1-4) Problems for juniors and seniors with special ability and interest in crafts. Hours arranged. May be repeated. Maximum credit 12 hours. Prereq: Permission of department head.

4987 Honors: Interior Design (1-3) Problems for juniors and seniors with special ability and interest in interior design. Hours arranged. May be repeated. Maximum credit 9 hours. Prereq: permission of department head.

4988 Honors: Housing (1-3) Problems for juniors and seniors with special ability and interest in housing. Hours arranged. Maximum credit 9 hours. Prereq: permission of department head.

4988 Honors: Equipment (1-3) Problems for juniors and seniors with ability and interest in equipment. Hours arranged. May be repeated. Maximum credit 9 hours. Prereq: permission of department head.

GRADUATE

5000 Thesis
5002 Non-Thesis Graduation Completion (3)
5040 Seminar in Design (3)
5050 Advanced Design Studio (4)
5060 Practicum (1-12)
5120 Historic Interior Design (3)
5210 Furniture Appreciation (3)
5310 Interior Design (3)
5330 Craft Design (3)
5341-51-61 Metal Design I, II, III (4, 4, 4)
5342-52-62 Weaving I, II, III (4, 4, 4)
5343-53-63 Textile Design I, II, III (4, 4, 4)
5344-54-64 Wood Design I, II, III (4, 4, 4)
5345-55-65 Enameling I, II, III (4, 4, 4)
5346-56-66 Plastics I, II, III (4, 4, 4)
5347-57-67 Ceramics I, II, III (4, 4, 4)
5350-60-70 Fabric Structures I, II, III (4, 4, 4)
5368 Ceramics-Glaze Calculation (4)
5369 Ceramics-Klin Construction (4)
5410 Advanced Problems (3)
5510 Environmental Factors In Interior Design (3)
5520 Environmental Factors In Interior Design (3)
5530 Environmental Factors In Interior Design (3)
5610 Furniture Design (3)
5613 Housing Management (3)
5614 Housing Regulations and Controls (3)
5615 Housing Programs and Policies (3)
5620 Experimental Methods In Household Equipment (3)
5630 Environmental Requirements for Family Work Centers (3)
5810 Crafts (1-4)
5820 Interior Design (1-3)
5830 Problems In Housing (1-3)
5910-20-30 Seminar (1-4, 1-4, 1-4)
6110 Contemporary Housing Issues and Problems (3)
6120 Advanced Topics in Housing Research (3)
6210 Environmental Design Analysis (3)
6320 Role of Crafts In Society (3)
6410 Conceptual Development in Craft Design (3)
6420 Perspectives in Crafts and Interior Design (3)

The following periodically are offered only at the Pi Beta Phi Arrowmont School of Crafts, Gatlinburg, Tennessee:

2211 Creative Design (1-4) Content same as 2210. May be repeated.
3311 Metal Design (1-4) Content same as 3310. May be repeated for credit.
3321 Metal Design (1-4) Content same as 3320. May be repeated for credit.
3331 Metal Design (1-4) Content same as 3330. May be repeated for credit.
Food Systems Administration (388)

2910 Seminar in Food and Lodging Administration
Overview of field of food and lodging and professional curriculum. Contacts with industry through field trips and guest speakers. Students must pay for their own field trip expenses.

3000 Dimensions of Tourism
Economic and cultural impact of tourism on society. Examination of forces influencing the domestic and international tourist industry.

3110 Food Service Procurement, Production and Service
Application of principles necessary for determining needs, procuring, storing, producing and serving foods in volume. Prereq: Food Science 2100 or 2510; Economics 2130 or consent of instructor. 3 hrs and 2 labs.

3220 Externship in Food and Lodging Administration
Planned educational experience in selected food and lodging operations. Prereq: 2910, 3110.

3320 Food Service Administration
Effective and efficient use of management resources in food service systems. Two credits to include quantity food labora-

tory. Prereq: 3110 or consent of instructor. Not open to seniors in food systems administration.

3920 Survey of Dietetics
Introduction to dietetics and to career opportunities; and role of dietitian in health delivery systems. Concurrent with Nutrition through 3020. Prereq: Junior standing.

4130 Food Systems Administration
Functions of management applied to food service systems. Prereq: 3110.

4140 Food Systems Personnel Development
Development of training programs for food service systems personnel. Prereq: 4130 or consent of instructor.

4150 Design and Layout of Food Service Systems
Design of physical facilities and selection and purchasing of equipment for food service systems. Prereq: 3110 or consent of instructor.

4210 Field Experience
Planned educational experience in selected food service systems and lodging systems. To be taken between junior and senior year if all prerequisites are completed. Prereq: 4130, 4150.

4250 Food and Lodging Managerial Cost Control
Cost analysis for control. Use of financial statements for decision making for food and lodging systems. Prereq: 4130; Accounting 2210.

4260 Food and Lodging Physical Plant, Planning and Maintenance
Feasibility, planning development and construction of food and lodging physical plant and maintenance. Electrical, mechanical, heating, plumbing, air conditioning and ventilation and illumination systems. Types of building materials and construction. Prereq: 3110, 4150 or consent of instructor; 3 hours and 1 lab.

4270 Food and Lodging Information Systems
Qualitative and quantitative analysis of information systems for decision making in food and lodging operations. Prereq: 4130, 4250; Office Administration 2750.

4410-20-30 Clinical Experience in Dietetics
Clinical experience in dietetics. Development of technical, human and conceptual skills through planned educational experiences at increasing levels of administrative responsibility in selected food systems. Must be taken in sequence. Prereq: 3110, 4140 coreq: 4130, 4250 coreq: 4140. Open only to students in Coordinated Undergraduate Program in Dietetics.

4421 Contemporary Developments in Dietetics
Relating professional course concepts to clinical experiences through small group discussions. Open only to seniors in the Coordinated Undergraduate Program in Dietetics. May be repeated. Maximum 6 hours credit.

4710 Contemporary Developments
Student or staff initiated course for study of special topic(s) pertinent to the field, topics selected to be determined by instructor and departmental approval. Credit elective only. Prereq: Consent of instructor. May be repeated with departmental approval for credit up to 9 hrs.

4800 Current Topics
Assigning and group discussion of research, literature, history and credit arranged. Prereq: 3110, or permission of instructor.

4900 Seminar
Review, organization, and reporting of literature on selected topics. May be repeated for credit. Prereq: 3410 or consent of instructor. Hrs and credit arranged.

4978 Honors: Food Systems Administration
Special problems for juniors and seniors showing special ability and interest in institution administration. May be repeated for credit. Hrs and credit arranged.

GRADUATE

5000 Thesis

5002 Non-Thesis Graduation Completion

5110-20 Experimental Food Study

5210 Methods of Food Systems Research

5220 Experimental Design of Food Systems Facilities

5230 Food Systems Evaluation

5240 Financial Management of Food Systems

5319 Administration of Food Service Delivery Systems

5500 Clinical Training in Health Care Agencies

5700 Current Programs and Trends in Food Systems Administration

5800 Problems in Food Systems Administration

5850 Field Experience

5900 Seminar

6110 Advanced Topics in Institution Administration

6210 Manpower Planning and Training for the Food Service Industry

6310-20 Quantitative Methods to Control Resources in Food Service Systems

6900 Seminar

Home Economics (481)

Professors:
L.M. Olland (Dean), Ph.D. Wisconsin, D.Sc. Rhode Island; G.E. Goertz (Associate Dean), Ph.D. Kansas State.

Associate Professor:
M.N. Perry (Dean for Graduate Studies), Ph.D. Tennessee.

Assistant Professor:
V.S. Anagnost (Assistant Dean), M.S. Tennessee.

1010 Home Economics as a Profession
Scope of the profession of home economics; educational and professional preparation, personal qualities required and satisfaction to be gained from various careers within the profession. Satisfactory-No Credit.

1510 Family Systems:
Human Development
Definition, description and utilization of basic systems concepts as applied to development of individuals and families; emphasis on professional development and contribution.

1520 Family Systems:
Aesthetic Environment
Examination of near and far environment from an aesthetic perspective with implications for quality of life of individuals and families.

2510 Family Systems:
Physiological Well-Being
Definition, description and utilization of interdisciplinary concepts as related to physiological well-being of individuals and families.
Home Economics Education (490)

Professors: N.P. Logan (Head), Ed.D. Tennessee; I. Brown (Emeritus), Ph.D. Ohio State.

Associate Professor: S.W. Miller, Ph.D. Ohio State.

Assistant Professor: J.H. McTinney, Ph.D. Florida State.

The Department of Home Economics Education is included as an instructional unit in the Department of Vocational-Technical Education in the College of Education (see page 113 for course offerings).

Professional subject matter courses are offered by the departments of the College of Home Economics for those preparing for secondary school teaching programs. The home economics education curriculum is designed to provide the requirements for certification in vocational home economics. The curriculum is listed on page 153.

Textiles and Clothing (971)

Professor: A.J. Trecce (Head), Ph.D. Ohio State.

Associate Professors: I.M. Ford, Ph.D. Pennsylvania State; B.G. Bowden, Ph.D. Manchester (Great Britain); J. Rego, Ph.D. Notre Dame.

T.L. Vigo, Ph.D. Tulane.

Assistant Professors: R.P. Downey, M.S. Tennessee; M.F. Miller, Ph.D. Pennsylvania State.

Instructors: A.L. Bullock, B.S. Mississippi College; B.C. Henderson, M.S. Purdue; B.M. Williams, M.S. Tennessee.

1160 Costume Analysis (2) Analysis and application of design principles related to different figure types and activities. 1 hour and 1 lab.

1165 Clothing (2) Fundamentals of pattern alteration, fitting and construction with emphasis on design quality and construction compatibility. Prereq: 1160, 1 hour and 2 labs.

2110 Fashion (3) How fashion world works, from designer to consumer; fashion trends and analyses.

3330 Textiles (3) Textile products—study of consumer selection, preference and satisfaction with emphasis on performance. For non-majors only.

3410 Cultural and Functional Aspects of Textiles and Clothing (3) Cultural, socio-psychological, functional and technological developments in textiles and clothing. Prereq: 3 hours of each of the following: child development and family relations, economics; 4 hours sociology or anthropology or psychology.

3420 Textiles I (3) Consumer-oriented study of textiles, emphasizing fibers, fabric constructions and finishes in relation to use, serviceability and care of apparel and household fabrics. Prereq: 12 hours chemistry or physics or biology or botany. 2 hours and 1 lab.

3440 Clothing II—Advanced Construction (3) Comparative study and investigation of fabric designs and processes utilizing basic principles including fitting, elementary flat pattern, quick tailoring methods and couture finishing techniques. Prereq: 1150. 1 hour and 2 labs.

3450 Consumer Issues: Clothing for Contemporary Families (3) Problems of clothing consumption encountered during various stages of family life cycle. Prereq: Junior standing.
4978-BB-98 Honors: Textiles and Clothing (3, 3, 3)  
Individual problems for juniors and seniors showing special ability and interest in textiles and clothing. 
Admission only upon recommendation of head of department. Hrs. arranged.

GRADUATE

5000 Thesis

5002 Non-Thesis Graduation Completion (3)

5110 Textile Testing and Methods of Research in Textiles (3)

5120 Advanced Problems in Textiles and Clothing (3)

5130 Advanced Tailoring (3)

5150 Principles of Design Analysis (3)

5160 Review of Literature (3)

5170 Social, Psychological and Economic Aspects of Clothing (3)

5180 Advanced Textile Economics (3)

5210 Evaluation of Instructional Materials in the Field of Textiles and Clothing (3)

5220 Historic Textiles (3)

5240 Practicum (1-9)

5250-60-70 Problems in Textile Chemistry (4, 4, 4)

5310 Fashion Analysis (3)

5320 Problems in Historic Costume (3)


5800 Problems in Textiles and Clothing (1-3)

5900 Seminar in Textiles and Clothing (1-3)

6010 Advanced Studies in Textiles and Clothing (3)

6110 Selected Issues in Textiles and Clothing (3)

6140 Selected Behavioral Theories in Clothing (3)

6150 Social-Psychological Theories of Clothing Consumption (3)

6160 Textile Flammability (3)

6170 Physical Performance Behavior of Textile Structures I (3)

6910 Seminar in Textiles and Clothing (1-3)
The University of Tennessee College of Law commenced operation in 1890 and has continuously sought to provide high quality legal education in a university community.

While the principal objective of the Law College is to prepare students for the private practice of law, its total mission is more broadly conceived. The College of Law exposes students to the legal issues of our society enabling them to develop analytical skills in respect to decisional law and statutes, the ability to communicate effectively to others their knowledge of the law, an awareness of the historical growth of the law, a knowledgeable appreciation of the interrelationship of law and society, and the ability to use law as an implement of societal control and development. Students are thus equipped to serve their community not only as advocates and counselors, but as policy makers and active, responsible citizens as well.

The coordinated program of the College of Law has three dimensions. Teaching and learning, research into and appraisal of our legal institutions, and service to the community. Each plays a significant role in the College of Law as a modern law center.

The teaching and learning element of legal education at the College of Law involves a cooperative classroom interaction between faculty and students in the analytical study of a host of questions and problems found in today's legal profession. These involve decisional law, statutory interpretation, administrative regulation, techniques of trial and appellate advocacy, and the roles and responsibilities of the lawyer in advising and representing clients. While proper consideration is given to the problems of Tennessee law, the course of study is conducted with a view toward providing an awareness and understanding of the regional and national perspective so as to prepare our students for service in any state.

The College of Law is also directly involved in providing service to the community of which it is a part. A major element of public service is centered in the Legal Clinic where students, under the guidance of skilled and experienced licensed practitioners, provide legal services to indigent persons of Knox County. Additionally, through research, consultative, and other services to legal institutions and groups within the state, the College of Law seeks to participate in the development and improvement of the society in which its students may eventually practice law. The Public Law Research and Service Program and the Continuing Legal Education Program are primary examples of this function.

In combination, the direction and objectives of the Law College lead to the development not of a narrow technician, but of a student of the law with the perspective, breadth and understanding necessary for the accomplishment of the many tasks assigned by society to the legal profession.

The College of Law Building

Since 1950 the College of Law has occupied a building especially designed for teaching, study, and research in the law. In the spring of 1971 the Law College occupied the new wing begun in the fall of 1969. The new addition has doubled the available facilities. The library, the classrooms, and the offices are air-conditioned. Adequate classrooms, courtrooms, seminar rooms, a private office for each full-time faculty member, the well-equipped offices of the Legal Clinic, and a spacious, well-lighted Law Library are contained in this modern building. Stack space for more than 200,000 volumes will permit the reconstitution of one of the largest law book collections in the South.

Legal Clinic

The University of Tennessee Legal Clinic was established in 1947. Though the Clinic provides legal assistance to indigent persons, it is designed primarily as a teaching device to correlate theory and practice. It introduces the student under faculty supervision to the law in practice through personal contact with clients and their problems. The Legal Clinic functions as a large law office in which the student gains experience in interviewing clients, writing legal letters, investigating and evaluating facts, preparing memoranda of law, preparing cases for trial or adjustment, and briefings cases. Classroom work supplements the handling of actual cases. The student is thus trained in the technique of law practice and the management of a law office. The ethical responsibilities of lawyers and their function as public servants are stressed. Under present rules of the Tennessee Supreme Court, Clinic students, under the direct supervision of the Legal Clinic staff, are certified to practice before all the courts of Tennessee.

The Law Library

The Law Library contains the official state reports of all states, the complete National Reporter system which covers all states and the federal courts, the Annotated Reports, standard sets of miscellaneous reports, the reports of the Canadian cases and of English cases from the yearbooks to date. In addition to these, there are adequate encyclopedias, digests and dictionaries, standard textbooks, law reviews, and current looseleaf services, totaling together more than 100,000 catalogue volumes. The Library is under the supervision of a law librarian who is trained in law and library science. The physical facilities, the collection of books, and the library staff combine to make the Law Library

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requirements of the joint degree program.

The College of Law will award credit toward the J.D. degree for acceptable performance in a maximum of 12 quarter hours of approved grade-level courses offered by the College of Business Administration. Three of the 12 quarter hours must be earned in Accounting 5810 or a more advanced accounting course. If College of Law credit is given for such accounting coursework, the joint degree student may not receive College of Law credit for Legal Accounting (Law College Course No. 8590).

The College of Business Administration will award credit toward the M.B.A. degree for acceptable performance in a maximum of 12 quarter hours of approved courses offered by the College of Law.

Credit earned in the first year courses in the College of Law, students are encouraged to maximize the integrative facets of the joint program by taking courses in both colleges each quarter.

A. Awarding of Credit for Work recording purposes in the College of Law for graduate business courses and in the College of Business Administration for law school courses, grades awarded will be converted to a letter Satisfactory/No Credit and will not be included in the computation of the student's grade average or class standing in the college where such grades are so recorded. The College of Law will award a grade of Satisfactory for a graduate business course in which the student has earned a B grade or higher and a No Credit for any lower grade. The College of Business Administration will award a grade of Satisfactory for a College of Law course in which the student has earned a 2.3 grade or higher and a No Credit for any lower grade. Grades earned in courses of either college may be recorded on a regular graded basis for any appropriate purpose in the college offering the course. The official academic record of the student maintained by the Registrar of the University shall show the grade earned by the instructor without conversion. The student must pass a final written comprehensive examination to receive the M.B.A. degree.

Satisfactory/No Credit Option

1. Course eligibility
   a. Required courses may not be taken on a Satisfactory/No Credit basis except specified.
   b. Courses taken on a Satisfactory/No Credit basis may not be used to satisfy area requirements.

2. Satisfactory/No Credit
   a. Election to take courses on a Satisfactory/No Credit basis must be made at the time of registration and cannot be changed thereafter. Students who register for a course Satisfactory/No Credit when they are ineligible to do so will be required to change to regular grading when the error is discovered.
   b. Credit will be given for a course taken on a Satisfactory/No Credit basis only in quarter hours in which the student completes (receives a grade in) at least 10 hours on a regular grade basis.
   c. Students electing the Satisfactory/No Credit basis must meet all require-ments imposed on students taking the course on a regular grade basis, e.g., attendance, term paper, recitation, etc.
   d. Examinations and other work of students electing a Satisfactory/No Credit basis shall not be graded separately or differently from that of other students.
   e. For purposes of Satisfactory/No Credit grading, Satisfactory shall mean a grade of at least 2.0.
   f. A student electing Satisfactory/No Credit who makes below 2.0 will receive an NC for the course, but the grade shall be recorded as S and will not be used in determining the grade average.
   g. A student electing Satisfactory/No Credit who makes below 2.0 will receive an NC for the course, but neither this grade nor the hours for the course will be used in computing the grade average or hours credit.
   h. A maximum of three courses may be taken on a Satisfactory/No Credit basis.

Maintenance of a Satisfactory Record

No student will be excluded from the College of Law for academic reasons prior to the completion of the three quarters of academic study. A full-time student who fails to achieve an overall average of at least 2.0 upon completion (receipt of a grade) of three quarters of academic study shall be excluded. A student who obtained permission to vary the first-year full course load shall be excluded if such student fails to achieve an overall average of at least 2.0 upon completion (receipt of grade) of all required first-year courses, or upon completion of 40 hours, whichever first occurs.

Maximum Course Load Per Quarter

18 hours is the maximum for Law School. If a student does not satisfactorily complete 12 hours in a quarter, then for the remainder of studies the student is restricted to 16 hours per quarter.

Clinical Courses

A student may take no more than a total of three clinical courses for law school credit and normally no more than one clinical course per quarter. Clinical courses are: 8600, 8605, 8620, 8625, 8630, and 8632-34.

Admission

Information regarding admission, financial aid, academic policies, extracurricular activities, and student services is available in the College of Law Bulletin. Students interested in the College of Law should obtain a copy of the Bulletin from the Office of the Assistant Dean, The University of Tennessee, College of Law, 1505 West Cumberland Avenue, Knoxville, Tennessee 37916. Completed application should be received by March 15 of the year of expected admission.
Program of Instruction

The following program is designed to give the student an adequate preparation for the practice of law. From twelve to fifteen hours of classroom work a week are required of all full-time students. The required courses will be taken as early in the law course as possible or as scheduled by the law faculty. See statement of course availability at end of section.

REQUIRED COURSES


8020 Contracts I (5) The basic agreement process and legal protection afforded contracts. Problems of offer and acceptance, interpretation, illegality, and the statute of limitations.

8030 Contracts II (4) Continuation of study begun in Contracts I. Concentrating on remedies, conditions, impossibility and frustration, third party beneficiaries, assignment and delegation, and discharge.

8040 Criminal Law (4) Course on substantive aspects of criminal law. General principles applicable to all criminal conduct, then specific analysis of particular crimes. Substantive defenses to crimes, including insanity, intoxication, mistake, necessity, legal duty, self-defense, and duress.

8050 American Legal History (3) Examination of historical development of the law, legal institutions, legal profession, and legal education from colonial times to present. Historical relationship of legal system to society emphasized.

8070 Legal Process (3) Introductory course on judicial process. Brief survey of judicial organization and procedure, legal history, case analysis, significance of precedent, influence of the judge as policy maker, adversary system, and role and responsibilities of the lawyer as advocate. Legislative interpretation.

8110-11-12 Research and Writing I, II, III (2, 2, 2) This three-semester sequence is designed to provide the student with a progressively more sophisticated involvement in legal research and writing. Fundamentals of Legal Bibliography with an emphasis upon techniques and research skills will be an integral part. Among other components to be included are preparation of a client letter, drafting of pleadings, contracts and other instruments, the preparation of a memorandum of law, and preparation and presentation of an appellate argument (written and oral). Classes would be divided into small sections, and individual criticism given on all work submitted. Lectures on research writing and advocacy skills will be included. 8110 and 8112 graded S/NC.


8140 Property II (5) The recording system, title assurance, easements, nuisance, lateral support, water rights, zoning, and eminent domain.

8180 Torts I (4) Intended interference with the person, assault and battery, false imprisonment. Negligence and standard of care, proof of negligence. Affirmative duties, immunity, actual causation, and contributory causes.


8300 Constitutional Law I (4) Judicial review, limitations on judicial power, national legislative power, regulation of commerce, power to tax and spend, other sources of national power, state power to regulate and tax, intergovernmental immunities.

8310 Constitutional Law II (4) Freedom of expression, association and religion. Fourteenth Amendment rights excluding rights of criminally accused, including discrimination as to race, sex, etc., right to franchise and apportionment, concept of state action in matters of civil rights.

Either 8300 or 8310 will satisfy the Constitutional Law requirement. One must be taken for that purpose and the other may be taken as an elective.

8545 Juvenile Law Seminar (3) After examining the unique history and philosophy of juvenile justice system, course will consider jurisdiction, judicial and extra-judicial functions of juvenile court, and various dispositional alternatives. Students will read judicial opinions and materials from fields of history, sociology, and psychology. Knox County Juvenile Court will serve as laboratory for students. Refusal of students to participate in seminars will result in denial of credit. Seminar credit will be given in addition to regular course credit.

8650 Legal Profession (3) Role of the lawyer in society and ethical responsibilities implied in that role. Admission to the Bar, the organized profession, solicitation, advertising, unauthorized practice, conflicts of interest, decision to represent or withdraw as counsel; fiduciary relationship, advocacy and its limitations, fees, and disciplinary procedures.

ELECTIVE COURSES

8600 Criminal Process I (3) Due process, equal protection, arrest, search and seizure, wire tapping and electronic eavesdropping, entrapment, right to counsel, trial by jury, self-incrimination, interrogation and confessions, exclusionary rules.


8160 Interviewing and Counseling (3) Lawyer's role as interviewer and counselor. Designed to increase interpersonal skills by developing heightened sensitivity and understanding of emotional and psychological forces. Use of videotape techniques and role playing. Models developed from which students can analyze and evaluate classroom efforts.

8170 Trial Practice (3) Criminal and civil litigation, with primary emphasis on trial problems and preparation of trial strategy, professional responsibility, fact investigation, witness preparation, discovery and presentation of evidence, selection and instruction of juries, opening and closing arguments.


8220 Agency and Partnership (4) Principal and agent. Master and servant. Authority, unauthorized transactions, notice, ratification, restitution. Parties to transactions in individual and partnership areas. Partnership creation, dissolution, and termination, distribution and winding up. Organizational problems, and devices to reduce risk. The Uniform Partnership Act.

8240 Arbitration Seminar (3) Arbitration of labor agreements. Judicial and legislative developments, nature of process, relationship to collective bargaining, selected arbitration problems on various topics under collective agreements, role of lawyers and arbitrators in the process. When course is not offered, law student, with law faculty permission, may elect Economics 4000.


8280 Conflict of Laws (5) Jurisdiction, foreign judgments, choice of law, constitutional limitations, renvoi, and classification.

8320 Constitutional Law Seminar (2) Study and discussion of current constitutional law cases. Original paper required. Constitutional Law a prerequisite.


8345 Criminal Law Seminar (3) Advanced problems in Criminal Law and Administration of Justice.

8350 Damages (3) Rules and standards including concepts of value, allowance of interest and expenses, limitation of requirements of certainty and avoidable consequences, and credit of benefits accruing to complainant; damages in tort actions including negligence, personal injury, medical malpractice, special emphasis upon personal injuries and personal property; damages in contract actions with emphasis upon torts, misrepresentation and fraud.

8360 Family Law (4) Survey of laws affecting the formal and informal family relationship. Topics include premarital disputes, antenuptial contracts, child custody, child support, maintenance, property effects of marriage, spousal obligations within the family, legal separation, annulment, divorce, alimony, property settlements, child custody, child support, adoption, abortion, and illegitimation. 

8380 Equity (4) Jurisdiction and power of courts of equity. Specific performance. Injunctions.

8400 Estate Planning (3) Problems of estate planning both inter vivos and testamentary. Advantages and disadvantages of various types of ownership. The law and practice of fiduciary administration, insurance, wills, future interests, trusts, corporations, partnerships, and gifts as related to estate planning. Research on assigned topics. Drafting of estate plan for hypothetical fact situations. Preereg 8500 and 8840. In addition, recommended that student have had as many of following courses as possible: Wills, Private Corporations, Taxation (Income), Partnerships and Trusts.

8420 Evidence I & II (3, 3) Rules regulating introduction and exclusion of oral, written, and demonstrative evidence, including relevancy, competency, impeachment, hearsay, privilege, judicial notice, presumptions, and burden of proof.

8460 Federal Courts (4) Jurisdiction of federal courts, and conflicts between federal and state judicial systems, including nature of judicial power, federal questions, diversity, removal, jurisdictional amount, choice of state or federal law, habeas corpus, automatic federal questions, and appellate jurisdiction and joinder of parties and claims.

8490 Environmental Law (4) Survey course examining basic federal and state statutory and regulatory schemes for air and water quality, together with other specific general legislation such as the federal (plus related states) Endangered Species Conservation. Selected introduction to role and scope of federal, state, and local agencies in enforcement and proposing new laws and regulations.

8500 Future Interests (4) The law of future interests, including reversions, remainders, possibilities of reverter and rights of entry, executory interests, construction of limitations, and rule against perpetuities.

8510 Government Contracts (3) Principles relating to government procurement, both federal and state, to include award, performance, and termination of contracts. Administrative settlement of disputes arising under government contracts. Preereg 8200.


8525 International Business Transactions (3) Legal status of persons abroad, acquisition and use of property within a foreign country, doing business abroad as a qualifying factor in doing business within a foreign country, and extrapropration or annulment of contracts or concessions. Preereg 8530, 8533.

8530 International Law I (3) International agreements, organizations, recognition of states, nationality, territory, jurisdiction and immunities.

8533 International Law II (3) International claims, expropriation, force and war.

8535 Jurisprudence (3) A comparative examination of legal theories including natural law, idealism, historical jurisprudence, utilitarianism, analytical jurisprudence, sociological jurisprudence, legal realism, and the policy science approach.

8540-42 Labor Relations Law I, II, III (3, 3, 3) Evolution of labor relations laws, rights of self-organization, employer and union unfair labor practices; strikes; boycotts and picketing, collective bargaining; protection of employee and union rights; cancellation and unionization affairs; individual rights in labor relations; employment discrimination; federalism and preemption and unions and the antitrust laws. Courses recommended in sequence, but one offering may be elected.

8550 Labor Relations Law Seminar (3) Study and discussion of selected labor relations law problems.

8555 Negotiations and Dispute Settlement (3) Study of: (1) Negotiations process and its role in legal disputes, with training in art of negotiating and settling disputes in a manner which fulfills the requirements of clients and avoids unnecessary litigation; (2) effective use and further development of informal methods of dispute resolution including pretrial procedures, grievance procedures, mediation and other third party intervention.

8560 Law, Language and Ethics (4) An intermediate level jurisprudence-type course. Law is the mind's attempt to defend, direct and administer human activity. Exploration of ethical values underlying formal legal networks. Involves typical of judicial reasoning and legal concepts through the methods of epistemology.

8570 International Law Seminar (3) Study and discussion of current international law problems. Paper required. Preereg 8300 and 8310.

8580 Law and Current Problems Seminar (2-3) Credit hours determined at the option of instructor. May be repeated for credit.

8590 Legal Accounting (2) A course designed to familiarize law students with accounting problems and techniques, and to enable them to use and understand accounting information.

8600 Civil Advocacy (5) Nature, function, dynamics, and processes of lawyering and learning, with emphasis on development of skills and models useful in helping law students evaluate their roles in legal system. In addition to classroom components, component of fieldwork in which students are offered to introduce students to such lawyering skills as interviews, negotiations, pleadings, drafting and general law practice and preparation. Preereg 8840 and 8420 or 8440.

8605 Advanced Civil Advocacy (5) Students continue and complete complex civil cases. Expanded opportunities for circuit court, jury trials, appeals and other interest litigation. Classrooms component deals in more advanced skills and strategies.

8615 Regulated Industries (3) Federal and state governmental regulation of natural monopolies and other "regulated industries" (e.g., transportation, public utilities, broadcasting).

8620 Criminal Advocacy (5) Classroom component devoted to trial skills and strategies. Case loads diversified among crimes with intensive staff supervision. Courtroom experience limited to pretrial hearings and misdemeanor charges in general and city courts. Preereg 8060 or 8065 and 8420 or 8440.

8625 Advanced Criminal Advocacy (5) Students assume responsibility in felony trials and appeals. Practice in circuit courts and prosecution of appeals. Preparation and presentation in conjunction with staff attorney supervision. Classroom component deals in more advanced skills and strategies. Preereg 8820.

8630 Specialty Clinic (3) Each component headed by a faculty supervisor. Intensive field experience on a specialized problem in conjunction with seminar on course topic. Major litigation and law reform efforts may be involved.

8633-34 Economic Development Clinic (2, 3) Two quarter course in counseling small corporate business ventures. Emphasis on non-competitive skills: negotiation, counseling, document preparation in conjunction with staff attorney supervision. Course extends two quarters of completion of both quarters is required for hours and graded incompletely. Incomplete (1) will be assigned for 8632 (first quarter). Course only upon completion of 8634 (second section, 3 hours credit). Preereg 8740 and 8862.

8640 Legal Draftsmanship (2) Independent drafting by students under direct supervision of instructor.

8650 Intellectual Property (3) Protection for intellectual property under federal and state law, patents, trade secrets, copyright, tax considerations and international aspects.
8800 Sales (3) Art. 2 (Sales) and Art. 7 (Documents of Title) of the Uniform Commercial Code.
8810 Secured Transactions (3) Brief survey of suretyship and guaranty. Art. 9 (Security interests in Personal Property) of the Uniform Commercial Code.
8815 Race and Sex Discrimination and the Law (4) Connecting the dots: an examination of legislative, administrative, and judicial policies, and social and economic activi-
ties. Legislative, judicial, and administrative materials.
8820 Securities Regulation (3) Advanced problems of governmental regulation of issuance of securities.
8830 Social Legislation and Employee Benefits (3) A study of legal problems arising under such programs as workmen's compensation, wage and hour laws, unemployment compensation, public assistance, Social Security, and Medicare.
8850 Seminar in Law and Mental Health (3) Composed of equal number of law and medical students. Assigned readings. Pair of law and medical students to prepare papers. Jointly taught by professor and psychiatrist.
8862 Taxation (Income) II (3) Preparation of corporation tax forms. Research and preparation of applications to the IRS.
8865 Taxation (Income) III (3) Corporate re-
organizations; methods of corporate distributions; sale of corporate business; other income tax prob-
lems of corporations.
8870 Seminar in Business Planning (3) Selected problems on corporate and tax aspects of business planning and finance.
8890 Seminar in Environmental Protection (3) Through team-teaching and input of selected experts, course will focus on specific problems of pollution and other environmental problems. Emphasis on how the environment is affected by government and industry.
9810 Administrative Law Seminar (3) In-depth study of principles of administrative law not covered in basic courses. The role of administrative law is addressed in the context of administrative action.
9830 Seminar in Consumer Protection (3) Selected problems in consumer protection.
9835 Law and Medicine Seminar (3) Examination of medical profession's involvement in judicial process. Course will include opportunities for alternative learning or involvement in the field of law. An examination of medical profession's involvement in judicial process. Course will include opportunities for alternative learning or involvement in the field of law.
9845 Trial Moot Court (1) Experience and training in trial practice. Students serving as both lawyers and judges may be required to act as counsel in all aspects of trial practice. Knox County Circuit Court Judges serve as judges of Trial Moot Court. Satisfaction-No Credit.
9850 Trial Moot Court II (1) Training in trial of law suit. Satisfaction-No Credit.
9855 Seminar In Trade Regulation (3) Study and dis-
cussion of selected problems arising under anti-
trust laws and laws applicable to regulated industries.
9860 Trusts (4) Trusts; nature, creation, transfer, termination, modification, and administration.
9875 Water Law (3) Survey study in water law, including case studies and water law doctrines. Legal problems given to non-law students. (Same as Environmental Engineering 4810 and Water Re-
sources Development 4810.)
9878 Wills (3) Wills: validity, executions, mistake, revocation, succession. Intestate succession and foreign wills. Construction. Devises and legacies: ademption advancements, contribution. Tax prob-
lems and aspects of estate planning.
9890 Directed Research (1-3) Independent research by a student or students under the direction of an instructor. Student may take course maximum of once each year in last two years of study.
9890 Land Finance Law (3) Financing devices such as mortgages, deeds of trust and land contracts, problems involved in transfer of interests subject to these devices, and problems incurred in capital improvements. Consideration also directed to contem-
porary problems arising in such areas as condo-
miniums, cooperatives, housing subdivisions and shopping centers.
9899 Land Acquisition & Development (3) Alter-
native business forms will be assigned teams of students who will then prepare and present for sem-
inar discussion all major documents, notes, deeds, prospectus etc. necessary to accomplish the acquisition or development of large tracts of raw land. Prereq. 8890.

Course Offerings Subject to Change

The necessity of adjustments to accommodate changing conditions may dictate modifications in the course offerings and other features of the program described above. Accordingly, the College of Law reserves the right to make such variation in its program as circumstances may require. Prospective students who are interested in the precise course offerings at a given time or who desire other special information should make inquiry in advance.

It is necessary to offer some courses and seminars only on an every-other-year basis. Choice is based on subject matter and past patterns of student enrollment. In order to facilitate student and faculty planning these courses and seminars are listed as follows: 8830, 8850, 8850, 8850, 8850, 8850, 8850, 8850, 8850, 8850, 8850. These may be offered in the summer, under special permission upon availability of added faculty, but this will be done only after satisfying other priorities.
College of Liberal Arts

Alvin H. Nielsen, Dean
Charles W. Keenan, Associate Dean
Boyd L. Daniels, Assistant Dean for
Student Academic Affairs
Charles O. Jackson, Assistant Dean for
Curriculum and Instruction

The arts and sciences encompass the entire range of human knowledge, from the earliest records to the latest laboratory results. All that human beings have observed about themselves, about their societies, and about the natural world around them is of concern to one or another of the arts and sciences.

The curriculum of the College of Liberal Arts reflects this wide-ranging concern with the life of the mind. It emphasizes the breadth of human knowledge, perceived not only in terms of the traditional categories of the humanities and the natural and social sciences but also in broader perspectives which extend across academic fields and reach beyond the boundaries of a college of liberal arts. It also stresses depth of learning, thereby seeking to acquaint the student with the rigors of the intellectual process.

Through a study of the liberal arts one thus learns to participate in an intellectual tradition which is independent of particular teachers and which guides one in the choice of subjects for investigation and in the interpretation of those subjects. With time the individual begins to apprehend the great outlines of knowledge, the principles upon which it rests, the scale of its parts, and its lights and shadows.

The central purposes of a liberal education include the encouragement of intellectual tolerance, a dedication to the quest for knowledge as a worthwhile goal in and of itself, and the cultivation of a responsible, creative, individual mind. These qualities should enable one to develop throughout life an ability to reason and to express oneself clearly, an incentive to absorb emerging knowledge, and a competence to confront the uncertainties of human experience. For the student whose interests and talents lead into research, scholarship, and teaching, a liberal education provides an invaluable foundation.

For the individual who enters business, industry, the professions, or government service, it furnishes a broadly useful and well-rounded educational background. For all it offers the opportunity to share in a rich intellectual heritage, in the adventures of the mind, and in the life of the educated imagination. A liberally educated person is identified not so much by specific knowledge as by quality of mind and by creative response to the challenges of the times.

At the heart of a liberal education is an appreciation of and a familiarity with a great Triad: language, literature, and the arts; history and society; science and mathematics. These three great wellsprings of human thought are sources of the programs of study offered students in the College of Liberal Arts.

Programs of Study

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

Degrees Offered

1. BACHELOR OF ARTS
The Bachelor of Arts is the basic liberal arts degree, representing the attainment of a broad knowledge of the arts and sciences as well as a comprehensive understanding of one or more areas of special interest. Four programs leading to this degree are open to the student:

(a) Basic Program—The program appropriate for most B.A. students, it is developed around broad area requirements in the Triad plus intensive study in one or more of the specified departmental or interdepartmental major fields described below.

(b) Individualized Program—Designed for students whose educational goals are best met by a program tailored to their particular needs, it is similar to the Basic Program in broad area requirements but permits the student to develop an individual concentration incorporating work in two or more departments.

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

(d) Pre-Professional Program—The Pre-Professional Program is offered for those who wish to participate in one of the cooperative 3-1 curricula in the health sciences (medicine, dentistry, pharmacy, or medical technology). The student proceeds directly to specialized training in the chosen area after the third year of liberal arts study and offers the first year of professional study in lieu of a major concentration in the College in satisfying the requirements for the B.A. degree.

2. BACHELOR OF FINE ARTS
The Bachelor of Fine Arts degree represents intensive study preparing students for graduate study and professional positions in art. The degree is offered with a major in studio art. Recommended course combinations for those who desire to
concentrate in communication design, drawing, painting, oil, watercolor, printmaking or sculpture are available in the art department office.

(3) BACHELOR OF MUSIC

The program leading to the Bachelor of Music degree prepares students for graduate study and other positions in which a professional degree is required. The degree is offered with a major in music which has concentrations in music theory, composition, music history and literature, piano literature, and applied music (voice—organ—strings—woodwind, brass and percussion instruments—multiple woodwind instruments).

(4) BACHELOR OF SCIENCE

IN CHEMISTRY

The Bachelor of Science in Chemistry is a professional degree designed in accordance with standards laid down by the American Chemical Society to train students to go directly into positions in the chemical industry or to enter graduate study leading to positions in research and college teaching. Students may elect either the four-year resident program or a five-year cooperative program in which they alternate a quarter of study with a quarter of work in a chemical industry, thus gaining seven quarters of on-the-job experience while earning the degree.

Program Planning

Each student's academic program is highly individualized, reflecting that person's special interests, goals, and aspirations. Usually it will reveal a growing intellectual sophistication and the development of particular motivations. On occasion, unfortunately, it gives indication of frustration and lack of clear direction. Viewed as a whole it may appear to be a miscellany of unrelated courses which were chosen almost capriciously; or it may be a carefully selected curriculum which the student brought together in a way which represented for that individual the most appropriate and effective way of attaining educational goals.

The importance of program planning can hardly be overstressed. Few students enter the College with firm educational objectives in mind and their programs develop quite readily around these predetermined goals. Many, however, do not reach that stage of certainty until their academic careers are relatively far advanced. For these persons the exploration of possible directions and programs, in consultation with faculty advisors, is an important part of the educational process. It is essential for these students to develop their programs carefully and creatively in order that maximum flexibility and ultimate decision making may be assured.

A basic decision, of course, is the degree to be sought. If it is one of the three professional degrees (Bachelor of Fine Arts, Bachelor of Music, or Bachelor of Science in Chemistry), the student's program will be somewhat circumscribed, for these degrees are necessarily more prescriptive than the general liberal arts degree. If the student chooses to work for the Bachelor of Arts degree, the three elements which make up the curricula leading to that degree will need to be kept in balance: the broad requirements in the

Triad; the major concentration; and the elective courses which support and supplement the work in the first two categories. Most students find it desirable to lay a broad foundation by taking courses which will satisfy major requirements in the first two years, thus reserving most of the final years for in-depth study in the area of concentration. Elective courses may be taken at any time.

Advisers in the Liberal Arts Advising Center (220 Ayres Hall), in the various major departments, in the University Counseling Center, and elsewhere on campus are available to assist students with their program planning. In the final analysis, however, only the student can determine the program which will best satisfy particular needs.

Requirements for Degrees

Bachelor of Arts

As has already been stated, the general liberal arts degree is the Bachelor of Arts, and it is the appropriate objective for most students in the College of Liberal Arts. Requirements for this degree and the several curricular programs which lead to it will now be discussed in detail.

Note: Students are advised to consult the University's degree requirements as stated in the front section of this catalog as well as the requirements for the college or department.

GENERAL REQUIREMENTS

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

(1) A minimum of 180 credit hours;

(2) At least 60 credit hours in courses numbered 3000 or above;

(3) Appropriate work to satisfy the broad requirements of the Triad, counting no course for more than one Triad area (Basic Program, Individualized Program, and Pre-Professional Program only); and

(4) A major consisting of at least 36 credit hours in courses numbered 2000 or above. Students may choose courses useful in acquiring that familiarity. Only by such knowledge can people of good will hope to maintain humane values in a world where industrialization, urbanization, and other dimensions of technological change challenge traditional patterns of individual and collective behavior.

Study of science and mathematics develops in the student an inquiring attitude toward the natural environment and confidence in the ability to understand scientific explanations of diverse phenomena. These ends may be realized through an understanding of the empirical and the rational scientific methods of inquiry and an awareness of the limitations of science and technology in solving problems. The student should attain a knowledge of the way in which the development of science and technology has affected belief, philosophy, and the development of civilization.

Specific Requirements in the Triad

(1) Language, Literature, and the Arts

(a) Writing Proficiency

Each student is required to demonstrate ability to use the English language effectively and coherently, in one of the following

I. Basic Program

A. THE TRIAD:

Language, Literature, and the Arts

History and Social Science

Science and Mathematics

Language, literature, and the arts play a vital role in shaping human experience and perception. They give expression to human thought and feeling in formal and informal ways—within the context of the individual and the social. The written and spoken word, the dramatic motion and gesture of theatre, film, and dance, the visual and plastic image of painting and sculpture are all expressions of the human spirit and of human thought. They are a part of the human cultural heritage and they are a part of the human experience. They are a part of the human experience in every age and every culture.

In the study of history and social science, the student will learn to see the world as a whole and to understand the complex relationships between the parts. The student will learn to think critically and to evaluate the evidence for the conclusions drawn from that evidence. The student will learn to think creatively and to express ideas in a clear and effective manner.

In the study of science and mathematics, the student will learn to think logically and to apply the principles of scientific method to the solution of problems. The student will learn to think critically and to evaluate the evidence for the conclusions drawn from that evidence. The student will learn to think creatively and to express ideas in a clear and effective manner.

In the study of language, literature, and the arts, the student will learn to think critically and to evaluate the evidence for the conclusions drawn from that evidence. The student will learn to think creatively and to express ideas in a clear and effective manner.
four ways:

(i) By completion of English 1510-20 or 518-28 or 1231-41.

(ii) By earning a score of 4 or 5 on the College Board Advanced Placement Test in English; or, with special permission, earning a score of 3 on that examination and completing one 2000-level course in English at The University of Tennessee, Knoxville, with a grade of B or better.

(iii) By passing (normally after completing one quarter of freshman English at The University of Tennessee, Knoxville) a proficiency examination in writing, administered by the Department of English in cooperation with the Committee on Writing Standards.

(iv) By completing 4 hours of freshman English followed by a minimum of 6 hours in courses which require substantial emphasis on writing. The writing-emphasis courses are identified by the Committee on Writing Standards; a list of those approved may be obtained in the Office of the Department of English or in the Liberal Arts Advising Center.

Note: Students should normally take English in the first quarter of their registration and continue to take English or a writing-emphasis course in each succeeding quarter until this requirement is met.

(b) Literature, Foreign Language, and the Arts

The student may select any one of the following three options to satisfy this requirement.

(i) 8 hours of literature in a foreign language in the 3000-level or above. Prerequisite to the option is intermediate-level competence in the language, demonstrated by diagnostic (non-credit) or proficiency (credit) examination or by completion of the 2000-level sequence in that language.

(ii) Intermediate-level competence in a foreign language, demonstrated by diagnostic (non-credit) or proficiency (credit) examination or by completing 6 credit hours in the introductory sequence, (or an approved equivalent) in that language; and 8 hours of literature in English (originally in English or in translation) drawn from the list of courses published by the Committee on English, Literature and the Arts, available in the Liberal Arts Advising Center.

(iii) 24 hours in an integrated program in literature, culture, and/or the arts, focusing either on (1) a particular nation or area other than the United States, or (2) a comparative study of literary and artistic modes, genres, or movements. Suggested programs are published by the Committee on English, Literature, and the Arts and are available in the Liberal Arts Advising Center; students must also propose individual programs to the committee for consideration.

Note: In options (i) and (ii), those who take the diagnostic examination will not receive credit toward graduation but will be exempted from the portion of the requirement satisfied by the examination. Those who take the proficiency examination may earn up to 16 hours of credit toward graduation for previous study of the language, in addition to the credit they earn for course work undertaken in the College. Normally two years of high school language study is regarded as equivalent to one year of college study. Students who have had four years of high school study of the same language should be able to satisfy the requirement for intermediate-level competence in either option by examination and those who have had less than four years of study may be able to satisfy a portion of the requirement in this way, thus reducing the time required to satisfy this requirement. Full credit toward graduation is given for any language study undertaken successfully in the College regardless of the amount of previous study of that language.

Students who have had less than two years of study of the same language in high school are admitted with an entrance deficiency. Satisfactory completion of the final quarter of the first year sequence of college level foreign language study, normally in the freshman year, is necessary to remove this deficiency.

(2) History and Society

Each student must complete 24 hours of course work in this area including:

(a) One 8-hour sequence from the several survey courses offered by the Department of History or in a comprehensive interdisciplinary sequence having a substantial emphasis in history.

(b) 8 hours in courses with emphasis on man and society which are not primarily historical in nature.

(c) The remaining hours may be taken in either category (a) or (b).

A list of courses which satisfy this requirement is published by the Committee on History and Society and is available in the Liberal Arts Advising Center.

(3) Science and Mathematics

Each student must complete 24 hours of course work in this area, including:

(a) One of the following two options:

(i) An 8-hour sequence in a biological science; or

(ii) An 8-hour sequence in a physical science.

(b) 16 hours drawn from additional courses in the biological and/or physical sciences or from designated courses in:

(iii) The history, philosophy, or social impact of science;

(iv) Mathematics and logic.

No more than 16 hours may be applied toward this requirement from any one of the above four categories.

A list of courses which satisfy this requirement is published by the Committee on Science and Mathematics and is available in the Liberal Arts Advising Center.

B. THE MAJOR CONCENTRATION

In many ways the most important part of each student's program is the major concentration, for it is in this intensive study of one more or less limited field of knowledge that the individual begins to find a niche in the world of intellectual endeavor. The major concentration may be drawn from the offerings of a single department, or it may bring together related concerns of two or more departments. In either case the student should work out a program of study which has a definite design and aims at some overall objective. Guidelines are published by each major department or interdepartmental committee to assist the student in ascertaining goals and to provide a framework within which to develop a particular program. Additional assistance in the form of personal counseling is available in the Liberal Arts Advising Center and from designated faculty advisers in each major department or area.

Requirements for the specified majors available to students in the Basic Program vary from a minimum of 36 to a maximum of 56 credit hours in courses numbered 2000 and above, including prerequisites and corequisites (i.e., supporting courses in other departments or areas). Insofar as is consistent with the objective of a total program balanced reasonably between broad area requirements in the Triad, the major concentration, and supplementary courses, the student may elect as many courses as desired in any department or area.

Majors available in the Basic Program:

- Anthropology
- Art
- Audiology
- Biology
- Botany
- Chemistry
- Computer Science
- Cultural Studies
- Economics
- English
- French
- Geography
- Geology
- German
- Greek
- History
- Human Services
- Zoology
- Linguistics
- Music
- Philosophy
- Physics
- Political Science
- Psychology
- Religious Studies
- Spanish
- Speech Pathology
- Speech & Theatre

C. SUPPLEMENTARY ELECTIVE COURSES

At least one-fourth of each student's curriculum in the Basic Program will be made up of courses selected according to the individual's interests to supplement and support the work being done in the major concentration and in the Triad. This dimension of the student's experience in the University represents that freedom within which total education may be rounded out and enriched. Elective courses should be chosen with care so that they will truly enhance the student's total program and help in the achievement of well thought-out educational objectives.

Some of the choices which the student might make in selecting the elective courses are:

(1) Additional courses in the major field;

(2) A related minor concentration in another department or area or in another college of the University (24 or more credit hours in courses numbered 2000 or above; see Note below);

(3) A concentration in the arts;

(4) An off-campus quarter;

Note: Minors are available in most of the departments and areas in which majors are offered, and also in the following:

- Asian Studies
- Biochemistry
- Black Studies
- Comparative Literature
- Latin American Studies
- Linguistics
- Macro Level Studies
- Physical Sciences
- Portuguese
- Women's Studies
Minors may be developed in other colleges of the University, but they must be approved by petition. Students transferring from other institutions must complete at least 6 of the 24 credit hours required for a minor at The University of Tennessee, Knoxville.

II. Individualized Program

The Basic Program described above will meet the educational needs of most of the students enrolling in College of Liberal Arts. Some, however, come with particular strengths in their preparation or with special interests which do not coincide with the departmental or interdepartmental majors specified in the Basic Program. For these students the Individualized Program has been established as a means of attaining a closer correlation between student needs and academic programs.

Students in the Individualized Program will normally satisfy the broad requirements of the Triad, just as those in the Basic Program do, although some latitude is provided for substitutions approved by the student's adviser and the dean of the College. The point at which the greatest degree of individualization takes place, however, is in the area of concentration. Although the quantitative aspect of the area of concentration is the same as for the major in the Basic Program (i.e., a minimum of 36 hours in courses numbered above 2000), there is no restriction in principle on the choice of courses of which it is comprised. The student may design a program, in consultation with an adviser, and submit it for consideration to the Committee on the Individualized Program. The proposed course of study must have some clear central purpose, usually implemented through intensive work in two or three departments; an undirected scattering of courses will not be approved. For further information consult the program director, Dr. Harry Jacobson (Ayres Hall).

III. College Scholars Program

A limited number of freshmen, entering transfers with less than 60 credit hours, and resident students with less than 90 credit hours are invited each year to enter this distinguished honors curriculum. Selection is based on previous academic record, test scores, recommendations, a written essay, and a personal interview. Admission is provisional for two quarters; continuation depends upon maintenance of a satisfactory record (normal 3.25 or above) and evidence of ongoing motivation and interest.

The College Scholars Program affords the high school student the opportunity to develop a meaningful curriculum. Each program is worked out individually with a special adviser (tutor) who under ordinary circumstances continues to advise the student throughout the college career. Together they determine what kinds of course work and/or other learning experiences will best fulfill the student's objectives, while at the same time achieving the kind of liberal education the College believes is important for every student. In the final two years of the program students will be heavily involved in independent study or research resulting in a senior honors thesis or project report.

Further information and applications may be obtained from the program director, Dr. Harry C. Jacobson, 226 Ayres Hall.

IV. Preparation For The Health Professions

Pre-Dental
Pre-Dental Hygiene
Pre-Medical
Pre-Medical Record Administration
Pre-Medical Technology
Pre-Nursing
Pre-Pharmacy
Pre-Physical Therapy
Other Health Professions

Pre-health professional programs are available for students who plan a career in one of the health professions. The programs preparing students for the study of medicine, dentistry, and pharmacy include the specified courses required for admission to the respective colleges of The University of Tennessee Center for the Health Sciences at Memphis (UTCHS), as well as those required for the Bachelor of Arts degree in the College of Liberal Arts at UT, Knoxville.* The pre-medical technology program prepares students to undertake professional training during the fourth year of study at The University of Tennessee Center for the Health Sciences at Memphis. Other pre-health professional programs—dental hygiene, medical record administration, nursing, pharmacy, and physical therapy—are offered for those students who are planning to pursue professional training in health professional areas which lead to an undergraduate degree from UTCHS but not to a degree from UTCHS.

NOTE: The UT Center for the Health Sciences is a state-supported institution and by legislative intent is required to admit all qualified Tennesseans prior to considering out-of-state applicants. At the present time there are more qualified Tennessee applicants than there are places available; therefore, out-of-state applications are not being considered. The only exception to this policy is the non-resident applicant who is son or daughter of an alumnus or alumna of the UT Center for the Health Sciences and who has completed all of the undergraduate work at a college in the University of Tennessee System and is otherwise qualified competitively.

Admission to any program at the UT Center for the Health Sciences or to the Medical Technology Program at the UT Memorial Research Center and Hospital is at the discretion of that program's admissions committee. Admission to the University of Tennessee, Knoxville, and completion of a pre-health professional program in the College of Liberal Arts does not assure admission to any professional training program.

Because the competition for admission to most programs in the health professions is keen, pre-health professional students are encouraged to work towards the completion of a degree program in a major which will enable the individual to adapt to an alternative program in the event admission to the desired program is not achieved. The preparatory courses necessary for professional study can be incorporated into the chosen major program.

Students in a pre-health professional program should consult with a health professional adviser in the Liberal Arts Advising Center (220 Ayres Hall) or the Coordinator of the Health Professions Office (218 Ayres Hall) for more information about the programs outlined below. Bulletins describing the various pre-health professional programs, including a detailed statement of requirements, may be obtained from the Health Professions Office, 218 Ayres Hall.

PRE-DENTAL PROGRAM

The College of Liberal Arts offers both three-year and four-year programs leading to the degree of Bachelor of Arts for students preparing for admission. Therefore, both programs are based upon the curriculum outlined below. In the three-year program the student must complete at least 135 credit hours while enrolled in the College of Liberal Arts, and the B.A. degree is granted upon satisfactory completion of the first year of study at the UT Center for the Health Sciences. In the four-year program the degree is granted upon completion of 180 or more credit hours while enrolled in the College, including a major of 36 or more hours in addition to the courses listed below. The requirement for a major is waived for those completing their fourth year at Memphis. Students in either the three- or four-year program must complete the last 45 hours of credit in residence at the University of Tennessee, Knoxville, before entering the UT Center for the Health Sciences.

Although the B.A. degree is not required for admission to the College of Dentistry at Memphis, most of the students accepted into the study of dentistry have the baccalaureate degree before enrollment. Therefore, pre-dental students are encouraged to plan to complete all requirements for the B.A. degree before enrolling in the College of Dentistry.

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<tr>
<th>Course</th>
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<tbody>
<tr>
<td>1English 1510-20</td>
<td>8</td>
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<tr>
<td>1Chemistry 1110-20-30</td>
<td>12</td>
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*Students wishing to prepare for professional training at institutions other than The University of Tennessee Center for the Health Sciences should consult the catalogs of those institutions to determine the specific preparation required for admission.
PRE-DENTAL HYGIENE PROGRAM
A Bachelor of Science Degree in Dental Hygiene is granted by the UT Center for the Health Sciences upon completion of a program which includes 96 hours of prescribed courses in the College of Liberal Arts and 6 quarters of study at Memphis. Students interested in the pre-dental hygiene program are encouraged to consult with a health professions adviser in the Liberal Arts Advising Center or the Coordinator of the Health Professions Office for more information. Bulletins describing the pre-dental hygiene program and requirements in detail may be obtained from the Health Professions Office, 218 Ayres Hall.

PRE-MEDICAL PROGRAM
The College of Liberal Arts offers both three-year and four-year programs leading to the degree of Bachelor of Arts for students preparing for the study of medicine. Both programs are based upon the program outlined below. In the three-year program the student must complete at least 135 credit hours while enrolled in the College, including a major of 36 or more hours in addition to the courses outlined below. The requirements for a major is waived for those taking their fourth year at Memphis. Students in either the three- or four-year program must complete the last 45 hours of credit in residence at the University of Tennessee, Knoxville, before entering the UT Center for the Health Sciences.

Although the B.A. degree is not required for admission to the College of Medicine, most students accepted into the study of medicine have the baccalaureate degree before admission. Therefore, pre-medical students are encouraged to plan to complete all requirements for the degree before enrolling in the College of Medicine.

PRE-MEDICAL RECORD ADMINISTRATION PROGRAM
Admission to the medical record administration program at the UT Center for the Health Sciences, leading to a Bachelor of Science degree from UTHCS at Memphis, requires completion of 135 hours of prescribed courses. Classes are admitted in September; applications must be filed by April 15. The selection process usually includes interviews with members of the faculty.

Students interested in the pre-medical record administration program are encouraged to consult with a health professions adviser in the Liberal Arts Advising Center or the Coordinator of the Health Professions Office for more information. Bulletins describing the medical records administration requirements and program in detail may be obtained from the Health Professions Office, 218 Ayres Hall.

PRE-MEDICAL TECHNOLOGY PROGRAMS
The College of Liberal Arts offers two programs leading to the study of medical technology:

1. The Science-Medical Technology Curriculum leading to a Bachelor of Arts degree with a major in medical technology from UTK.
2. The Pre-Medical Technology Program leading to a degree of Bachelor of Science in medical technology from UTHCS at Memphis.

Science-Medical Technology Curriculum
The Science-Medical Technology Curriculum is a three-year program consisting of a minimum of 135 credit hours in the College of Liberal Arts. Students who complete this curriculum satisfactorily may apply for admission to the course of study in medical technology at The University of Tennessee Memorial Research Center and Hospital in Knoxville. Successful completion of this course, which results in the granting of 50 credit hours, makes the student eligible for a Bachelor of Arts degree with a major in medical technology from UTK. In addition, a Certificate of Laboratory Training will be awarded by the UT Memorial Research Center and Hospital. Students will then be eligible for examination by the Board of Registry of the American Society of Clinical Pathologists in order to be certified as registered medical technologists.

PRE-DENTAL HYGIENE PROGRAM
Bachelor of Science Degree in Dental Hygiene is granted by the UT Center for the Health Sciences upon completion of a program which includes 96 hours of prescribed courses in the College of Liberal Arts and 6 quarters of study at Memphis. Students interested in the pre-dental hygiene program are encouraged to consult with a health professions adviser in the Liberal Arts Advising Center or the Coordinator of the Health Professions Office for more information. Bulletins describing the pre-dental hygiene program and requirements in detail may be obtained from the Health Professions Office, 218 Ayres Hall.

PRE-MEDICAL PROGRAM
The College of Liberal Arts offers both three-year and four-year programs leading to the degree of Bachelor of Arts for students preparing for the study of medicine. Both programs are based upon the program outlined below. In the three-year program the student must complete at least 135 credit hours while enrolled in the College, including a major of 36 or more hours in addition to the courses outlined below. The requirements for a major is waived for those taking their fourth year at Memphis. Students in either the three- or four-year program must complete the last 45 hours of credit in residence at the University of Tennessee, Knoxville, before entering the UT Center for the Health Sciences.

Although the B.A. degree is not required for admission to the College of Medicine, most students accepted into the study of medicine have the baccalaureate degree before admission. Therefore, pre-medical students are encouraged to plan to complete all requirements for the degree before enrolling in the College of Medicine.

PRE-MEDICAL RECORD ADMINISTRATION PROGRAM
Admission to the medical record administration program at the UT Center for the Health Sciences, leading to a Bachelor of Science degree from UTHCS at Memphis, requires completion of 135 hours of prescribed courses. Classes are admitted in September; applications must be filed by April 15. The selection process usually includes interviews with members of the faculty.

Students interested in the pre-medical record administration program are encouraged to consult with a health professions adviser in the Liberal Arts Advising Center or the Coordinator of the Health Professions Office for more information. Bulletins describing the medical records administration requirements and program in detail may be obtained from the Health Professions Office, 218 Ayres Hall.

PRE-MEDICAL TECHNOLOGY PROGRAMS
The College of Liberal Arts offers two programs leading to the study of medical technology:

1. The Science-Medical Technology Curriculum leading to a Bachelor of Arts degree with a major in medical technology from UTK.
2. The Pre-Medical Technology Program leading to a degree of Bachelor of Science in medical technology from UTHCS at Memphis.
encouraged to consult with a health professions adviser in the Liberal Arts Advising Center or the Coordinator of the Health Professions Office for the specific requirements for admission.

Bulletins describing both pre-medical technology programs and requirements in detail may be obtained from the Health Professions Office, 218 Ayres Hall.

PRE-NURSING PROGRAM

The minimum requirement for admission to the College of Nursing at the UT Center for the Health Sciences is 48 hours of prescribed courses in the College of Liberal Arts. The program at Memphis, which leads to the Bachelor of Science in Nursing from UTCCHS, is three years in length.

Registered nurses who wish to work for a degree of Bachelor of Science in Nursing must complete 54 hours of prescribed courses to qualify for admission with advanced standing.

Students interested in the pre-nursing program are encouraged to consult with a health professions adviser in the Liberal Arts Advising Center or the Coordinator of the Health Professions Office for more information. Bulletins describing the pre-nursing program in detail may be obtained from the Health Professions Office, 218 Ayres Hall.

Note: A degree program in nursing is also available at the University of Tennessee, Knoxville, through the School of Nursing. Information may be obtained from the Dean of the School of Nursing.

PRE-PHARMACY PROGRAMS

The College of Liberal Arts offers three programs preparing students for the study of pharmacy at the UT Center for the Health Sciences in Memphis. The Bachelor of Science in Pharmacy degree is conferred by UTCCHS upon completion of three years of professional study at Memphis following any of the three programs.

The two-year program prepares students to be admitted to the College of Pharmacy upon completion of 90 hours of a prescribed course of study in the College of Liberal Arts. Further information may be obtained from the Health Professions Office, 218 Ayres Hall.

The three-year and four-year programs, which lead to a Bachelor of Arts degree from the University of Tennessee, Knoxville, as well as to the professional degree in pharmacy from the UT Center for the Health Sciences, are based upon the program outlined below. In the three-year program, the student must complete at least 135 credit hours while enrolled in the College of Liberal Arts, and the B.A. degree is granted upon satisfactory completion of the first year of study at Memphis. In the four-year program the degree is granted upon completion of 180 or more credit hours while enrolled in the College, including a major of 36 or more hours in addition to the courses outlined below. The requirement for a major is waived for those taking their fourth year at Memphis. Students in either the three- or four-year program must complete the last 45 hours of credit in residence at the University of Tennessee, Knoxville, before enrolling in the College of Pharmacy.

Bachelor of Fine Arts

The Bachelor of Fine Arts degree represents intensive study preparing the student for graduate programs and careers relating to art. A minimum of 180 credit hours are required for graduation. Although there are no specific concentration within the major, guidelines for the following recommended programs are available in the departmental office: (1) communication design, (2) drawing, (3) painting, (4) oil, (5) watercolor, (6) printmaking, and (7) sculpture. Transfer students are advised that a minimum of 28 credit hours in studio courses and 8 upper division credit hours in art history must be earned on the Knoxville campus. The Bachelor of Fine Arts degree and its major will be recorded as follows:

Bachelor of Fine Arts
Major: Studio Art

Core Curriculum:
The core program is required of all B.F.A. candidates. It is designed to give a broad art background, in both studio and art history, at the earliest possible time. This background, during the freshman and sophomore years, gives a foundation upon which the student may build, and an opportunity to become acquainted with the various artistic disciplines. This gives each student the understanding to better plan his or her own program during the remaining two years. Unless otherwise stated, the core program is nonsequential, but should be completed by the end of the first two years. Core courses are as follows:

Art History: Hours Credit
Art 2715... 4
A minimum of 13 hours other art history courses... 13

Studio:
*Art 1115 Studio Fundamentals: Real Space and Volume... 4
*Art 1125 Studio Fundamentals: Surface composition and color... 4
*Art 1135 Studio Fundamentals: Real Space and Volume... 4
Art 2105 Introduction to Drawing... 4
Art 2205 Introduction to Painting... 4
Art 2305 Introduction to Sculpture... 4
Art 2505 Introduction to Communication Design... 4
Art 2605 Introduction to Printmaking... 4

PRE-PHYSICAL THERAPY PROGRAM

Admission to the physical therapy program at the UT Center for the Health Sciences, leading to the degree of Bachelor of Science in Physical Therapy from UTCCHS, requires completion of 116 hours of prescribed courses while enrolled in the College of Liberal Arts. The program in Memphis is 15 months in length. Students interested in the pre-physical therapy program are encouraged to consult with a health professions adviser in the Liberal Arts Advising Center or the Coordinator of the Health Professions Office for more information. Bulletins describing the physical therapy program in detail may be obtained from the Health Professions Office, 218 Ayres Hall.

OTHER HEALTH PROFESSIONS

Cytotechnology
Histotechnology
Optometry
Radiologic Technology
Veterinary Medicine
A library of materials about career opportunities in the health professions, including most allied health areas, has been developed and is located in the Health Professions Office, 218 Ayres Hall. Academic advisers are available to assist students in planning their programs in order to meet the requirements for admission to other programs.

Freshman Hours Credit
1English 1510-20... 8
1Chemistry 1110-20-30... 12
Mathematics 1520-50 or 1530-60... 8
Psychology 2500... 4
1Triad I (Language, Literature & the Arts) ... 8
1Triad II (History & Society) ... 4
1Elective... 4

Sophomore
Biography 2120-20-30 or Zoology 2118-28-38... 12
Chemistry 3210-3211... 12
3219-29-39... 12
Speech 2311... 8
1Triad I... 8
1Triad II... 8
1Elective... 8

Junior
Accounting 2110... 3
Physics 2210-20... 8
1Triad I... 8
1Triad II... 8
1Elective... 12

Senior
Completion of major program and B.A. requirements... 45
Completion of one year at the UT Center for the Health Sciences
Bulletins describing the three pre-pharmacy programs in detail may be obtained from the Health Professions Office, 218 Ayres Hall.

1Or equivalent honors courses.
2The College of Pharmacy requires a minimum of 6 hours of English or foreign language in addition to English 1510-20.
3The College of Pharmacy requires a minimum of 6 hours in social science in addition to Psychology 2500. The remaining hours may include courses chosen from economics, history, political science, psychology, or sociology.
4Recommended electives include Classics 2710 and 2720 and courses in business administration, particularly accounting, economics and marketing.

1Prerequisite to 2000 level courses for B.F.A. program.

General Curriculum:
In addition to the core program, B.F.A. candidates must fulfill the following general requirements:

A. Triad Courses
I. Language, Literature and the Arts
A minimum of 8 hours English Composition... 8
II. History and Society
A minimum of 8 hours... 8
III. Science and Mathematics
A minimum of 8 hours... 8

24 hours
B. Philosophy 3910 ......................... 4
C. Non-Art Electives A minimum of 20 hours. Students entering with a high school language deficiency must take a minimum of 8 credit hours of a foreign language ........... 20
D. Art Electives (within art department) A minimum of 40 hours ....... 40
E. Unspecified Electives ...................... 43

TOTAL: 180 hours

COLLEGE ARTISTS PROGRAM The program of 180 hours is to be determined by the student and approved by the Department of Art honors committee. This program allows the gifted student greater opportunity for establishing a unique education in studio art, which may include independent study, off-campus study, or foreign study in addition to formal class work. Participation and graduation in the College Artists Program will be noted on the student’s transcript.

Students may apply for the program upon completion of 45 credit hours, but will not normally be considered after the completion of 90 hours. Admission to the College Artists Program is based on four criteria: 1) a general grade-point average of at least 3.0; 2) a portfolio of work; 3) the proposed course of study; and 4) a personal interview. A minimum grade-point average of 3.25, at least 12 hours per quarter, and evidence of continuing motivation and interest must be maintained to remain in the program.

Each College Artist will normally enroll in one honors general or departmental honors courses each quarter, and must participate in an honors exhibition prior to graduation.

STUDIO HONORS COURSES Courses are designed for the exceptional student. Honors courses may be taken in any of the areas of studio instruction, and admittance is based on the following criteria:
A. Grade-point average of 3.2 in studio art courses
B. Portfolio of class and/or outside work
C. Recommendation of the studio faculty, and/or approval of the instructor

Continued participation is subject to periodic review by the faculty. Students qualified for honors courses will enroll in course numbers which most closely parallel their present level, i.e., sophomores in 2008, juniors in 3008, seniors in 4008. Each course number may be repeated for a maximum of 24 hours credit.

Bachelor of Music The Department of Music offers the degree of Bachelor of Music with concentrations in music theory, composition, music history and literature, piano literature, and applied music (voice—piano—organ—strings—woodwind, brass and percussion instruments—multiple woodwind instruments). The study is designed to prepare students for graduate study or for positions in music for which a professional degree is required.

Students who plan to work for this degree are assigned an adviser in the Department of Music at the time they enter the program. Continuation in the program at the 3000 level requires the achievement of an average of 2.5 or better in all music courses taken. The minimum requirement for the degree is 180 credit hours, including the specified courses outlined below.

**Note:** In addition to the concentrations offered in the Bachelor of Music curriculum, any major in music with a concentration in either music history and literature or applied music is available in the Bachelor of Arts curriculum.

**MUSIC THEORY**

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**Sophomore**

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**Junior**

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**Senior**

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**MUSIC HISTORY AND LITERATURE**

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**Junior**

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**Senior**

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours</th>
<th>Credit</th>
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<tr>
<td>Music 2340</td>
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<td>3</td>
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<tr>
<td>Music 4260</td>
<td>3</td>
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<tr>
<td>Music History/Literature or Religious Studies</td>
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<tr>
<td>Electives</td>
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<td>12</td>
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<tr>
<td>Music History/Literature or Theory</td>
<td>6</td>
<td>6</td>
</tr>
<tr>
<td>Electives</td>
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</tr>
</tbody>
</table>

**TOTAL: 180 hours**
PIANO LITERATURE

Freshman
English 1510-20 .......................................................... 8
Music 1111-21-31 .......................................................... 9
Music 1113-23-33 .......................................................... 3
Music 1340 ................................................................. 3
Principal Applied Study ............................................... 6
Music 3699 ................................................................. 3
Liberal Arts Electives .................................................. 8
Music 2000 ................................................................. 0

Sophomore
Music 2111-21-31 ........................................................ 9
Music 2113-23-33 ........................................................ 3
Music 2310-20-30 ........................................................ 9
Principal Applied Study ............................................... 9
Music 3699 ................................................................. 3
Music Electives .......................................................... 6
Liberal Arts Electives .................................................. 8
Music 2000 ................................................................. 0

Junior
Music 2340 ................................................................. 3
Music 3113-23 ............................................................ 6
Music 3040-50-60 ........................................................ 6
Principal Applied Study ............................................... 9
Music 3699 ................................................................. 3
Psychology 2500 .......................................................... 8
Psychology 3550 .......................................................... 4
Junior Recital ............................................................. 9
Electives ................................................................. 9
Music 2000 ................................................................. 0

Senior
Music 3010-20-30 ........................................................ 3
Music 4010-20-30 ........................................................ 3
Music Education 4441-42-43 ......................................... 3
Music 3699 ................................................................. 3
Music History/Literature (3000-level and above) ................. 9
Music Electives .......................................................... 6
Senior Recital ............................................................ 0
Music History/Literature (3000-level or above) ................. 3
Senior Recital ............................................................ 0
Music 2000 ................................................................. 0

TOTAL: 180 hours

PIANO

Freshman
English 1510-20 .......................................................... 8
Music 1111-21-31 ........................................................ 9
Music 1113-23-33 ........................................................ 3
Music 1340 ................................................................. 3
Principal Applied Study ............................................... 9
Music 3699 ................................................................. 3
Educational Psychology 3810 ......................................... 3
Liberal Arts Electives .................................................. 8
Music 2000 ................................................................. 0

Sophomore
Music 2111-21-31 ........................................................ 9
Music 2113-23-33 ........................................................ 3
Music 2310-20-30 ........................................................ 9
Principal Applied Study ............................................... 9
Music 3699 ................................................................. 3
Music Electives .......................................................... 6
Liberal Arts Electives .................................................. 8
Music 2000 ................................................................. 0

Junior
Music 2340 ................................................................. 3
Music 3949-59-69 ........................................................ 6
Music 3113-23 ............................................................ 6
Music 3010-20-30 ........................................................ 3
Principal Applied Study ............................................... 9
Music 3699 ................................................................. 3
Junior Recital ............................................................. 0
Music Electives .......................................................... 3
Liberal Arts Electives .................................................. 12
Music 2000 ................................................................. 0

Senior
Music 4012-22-32 ........................................................ 6
Music 4012-22-32 ........................................................ 3
Principal Applied Study ............................................... 12
Music 3010-20-30 ........................................................ 3
Music 3699 ................................................................. 3
Music Electives .......................................................... 6
Liberal Arts Electives .................................................. 8
Music 2000 ................................................................. 0

TOTAL: 180 hours

ORGAN AND CHURCH MUSIC

Freshman
English 1510-20 .......................................................... 8
Music 1111-21-31 ........................................................ 9
Music 1113-23-33 ........................................................ 3
Music 1340 ................................................................. 3
Principal Applied Study ............................................... 9
Music 3113-23 ............................................................ 6
Junior Recital ............................................................. 3
Foreign Language (French, Italian, or German) .................. 6
Music 2000 ................................................................. 0

Sophomore
Music 3012-22-32 ........................................................ 6
Music 3113-23 ............................................................ 6
Music 3041-51-61 ........................................................ 6
Music 4074-84 ............................................................ 6
Principal Applied Study ............................................... 9
Music 3113-23 ............................................................ 6
Junior Recital ............................................................. 3
Foreign Language (French, Italian, or German) .................. 6
Electives ................................................................. 12
Music 2000 ................................................................. 0

Junior
Music 3130 ................................................................. 3
Music 3131-23 ............................................................ 6
Music 3041-51-61 ........................................................ 6
Music 4074-84 ............................................................ 6
Principal Applied Study ............................................... 9
Music 3155 ................................................................. 3
Music 4011-21-31 ........................................................ 3
Music 3111 ................................................................. 3
Principal Applied Study ............................................... 9
Music 3041-51-61 ........................................................ 6
Junior Recital ............................................................. 3
Liberal Arts Electives .................................................. 8
Music 2000 ................................................................. 0

Junior Recital ............................................................. 0

TOTAL: 180 hours

STRINGS

Freshman
English 1510-20 .......................................................... 8
Music 3011-21-31 ........................................................ 9
Music 3113-23-33 ........................................................ 3
Music 1340 ................................................................. 3
Principal Applied Study ............................................... 9
Music 3131-23 ............................................................ 6
Principal Applied Study ............................................... 9
Electives ................................................................. 12
Liberal Arts Electives .................................................. 8
Music 2000 ................................................................. 0

Junior Recital ............................................................. 0

TOTAL: 180 hours
College of Liberal Arts 175

Sophomore Hours Credit
Music 2111-21-31 .......................... 9
Music 2113-23-33 .......................... 3
Music 2310-20-30 .......................... 9
Principal Applied Study 12
Music 1040-50-60 .......................... 3
Ensemble .................................. 3
Liberal Arts Electives ........................ 8
Music 2000 ................................ 0

Junior Hours Credit
Music 2340 .................................. 3
Music 3113-23 ................................ 3
Music 3113-23-33 ............................ 3
Music 3133-23 ................................. 6
Principal Applied Study 12
Ensemble .................................. 3
Junior Recital ................................ 0
Music Electives ............................. 6
Liberal Arts Electives ........................ 8
Electives .................................. 9
Music 2000 ................................ 0

Senior Hours Credit
Music Education 4430 ......................... 3
Principal Applied Study 12
Ensemble .................................. 3
Senior Recital ................................ 0
Music Electives ............................. 6
Liberal Arts Electives ........................ 9
Electives .................................. 8
Music 2000 ................................ 0

TOTAL: 180 hours

WOODWIND, BRASS, AND PERCUSSION INSTRUMENTS

Freshman Hours Credit
Music 1510-20 ................................ 8
Music 1111-21-31 ............................. 9
Music 3113-23-33 ............................ 3
Music 1340 .................................. 3
Principal Applied Study 12
Music 1010-20-30 ............................ 3
Ensemble .................................. 3
Liberal Arts Elective .......................... 4
Music 2000 ................................ 0

Sophomore Hours Credit
Music 2111-21-31 ............................ 9
Music 2113-23-33 ............................ 3
Music 2310-20-30 ............................ 9
Principal Applied Study 12
Music 1040-50-60 ............................ 3
Liberal Arts Electives ........................ 8
Music 2000 ................................ 0

Junior Hours Credit
Music 2340 .................................. 3
Music 3112 .................................. 3
Music 3113-23 ................................ 6
Applied Area Literature .......................... 6
Principal Applied Study 12
Collateral Applied Study ......................... 6
Ensemble .................................. 3
Junior Recital ................................ 0
Liberal Arts Electives ........................ 8
Electives .................................. 6
Music 2000 ................................ 0

Senior Hours Credit
Music Education 4430 ......................... 3
Principal Applied Study 12
Collateral Applied Study ......................... 6
Ensemble .................................. 3
Senior Recital ................................ 0
Music Electives ............................. 5
Liberal Arts Electives ........................ 8
Electives .................................. 12
Music 2000 ................................ 0

TOTAL: 180 hours

NOTE: The curricula in Strings, Woodwinds, Brass, and Percussion; Multiple Woodwinds; and Voice allow 12 hours of ensemble credit to apply toward Electives. This is in addition to the hours in Ensemble listed in the tabular resumes.

Bachelor of Science in Chemistry

Students who desire to major in chemistry may select either the curriculum leading to the degree of Bachelor of Arts or that leading to the degree of Bachelor of Science in Chemistry. This latter program is approved by the American Chemical Society and is designed to train students to go directly into positions in the chemical industry or to enter graduate study leading to positions in research and college teaching. A minimum average of C must be made on all chemistry courses applied toward the Bachelor of Science in Chemistry degree.

COOPERATIVE PROGRAM IN CHEMISTRY

A cooperative program is available to students in the B.S. in Chemistry curriculum. After the freshman year the student alternates a quarter in school with a quarter in a job in a chemical industry. The program normally requires five years and involves a total of seven work quarters and twelve school quarters. Students are required to have at least a 2.5 average to enter and remain in the program. Some opportunity exists for students to enter the program later than the end of the freshman year. Students interested should make application to the head of the department at least one quarter in advance of the beginning of the first work period. Further information will be supplied on request.

CURRICULUM REQUIREMENTS

Freshman Hours Credit
Chemistry 1110-20-30 or 1118-28-38 ......................... 12
Mathematics 1490-50-60 or 1848-58-68 ......................... 12
Language, Literature, Art Triad (Writing Proficiency) ................. 8
Language, Literature, Art Triad (Literature, Foreign Language II) 8
History and Society Triad ................................ 8

Sophomore Hours Credit
Chemistry 3211-21-31 or 3511-21-31 (latter recommended) .......... 9
Chemistry 3219-29-39 or 3219, 3529-39 (latter recommended) .... 3
Mathematics 2940-50-60 or 2848-58-68 ......................... 12
Physics 2510, 2310-20 ............................. 11
Language, Literature, Art Triad (Literature, Foreign Language II) 8
History and Society Triad ................................ 8

Junior Hours Credit
Chemistry 2140-49 ................................ 4
Chemistry 3410-20-30 ................................ 9
Chemistry 3429-39 .................................. 2
Chemistry 4210-20, 4219-29 .......................... 8
Computer Science 3150 ............................... 3
Language, Literature, Art Triad (Literature, Foreign Language II) 8
History and Society Triad ................................ 8

Senior Hours Credit
Chemistry 4110 .................................. 3
Chemistry 4119 .................................. 1
Chemistry 4310-20 or 4610 and one quarter of 4710-20-30 ......... 4
Chemistry 4420 .................................. 3
*Chemistry Electives ................................ 6
*Electives .................................. 27

TOTAL: 186 hours

*Foreign language option is recommended in the order German, Russian, or French 1510-20. *German 2530-40 or 2510-20 or Russian 2510-20 or French 2510-20 are recommended.
*To be chosen from the following: Chemistry 4430, 4550, 4640, 4710-20-30, Biochemistry 4110-20, 4230
*At least 8 hours of these electives must be in a science other than chemistry; the rest may be in any area. The 8 hours of science other than chemistry, the following courses are recommended: Physics 3210, 3210-20-30, 4210-30-30-40, 4110-20-30; Mathematics 4610-20-30, 4540, 4500-60; Computer Science 4410-20-30, Geology 4610, Met. Engr. 4510-20, Zoology 3090, Botany 3210.

Preparation For Other Professions

Law
Students who plan to study law should consult the statement regarding admission to the College of Law (page 165) and discuss their programs with advisers in the Liberal Arts Advising Center.

Library Science

Certain courses in the Graduate School of Library and Information Science are open to students in the College of Liberal Arts interested in beginning positions in a library or in preparation for future graduate study in professional librarianship. For further information, see page 43 or consult the
Director of the Graduate School of Library and Information Science.

Planning

Students who wish to consider a career in city and regional planning or a related field will find a brief description of the program of the Graduate School of Planning on page 44. Students are accepted into planning from a broad variety of undergraduate backgrounds. Detailed information on the planning profession, admission requirements and the program of study may be obtained from the Graduate School of Planning.

Public Administration

Students majoring in political science who wish to prepare for an administrative career in the public service may select courses to fit that objective. The concentration appearing below is suggested for students with public service career interests. The degree to be awarded is a Bachelor of Arts with a major in political science, augmented by supportive work in related disciplines.

Freshman Hours Credit
*Political Science 2510-20, 2539 (choose 8 hours) ... 8

Sophomore
*Economics 2110-20-30 ........................................... 9

Junior
Political Science 3565-66 .................................... 8
Political Science 3575-76 or 3801-02-03-04 ................. 8
Economics 3340 .................................................. 3
Accounting 2110-2120, 2210 ................................ 9

Senior
Political Science 4610-20 .................................. 7
Political Science 4410 ........................................... 4
Economics 3410 .................................................. 3
Accounting 3510 ................................................. 3
Finance 4350-60 ................................................. 6

In addition, sufficient electives in political science must be taken to meet the number of hours required for a major in political science. Further information may be obtained in the Department of Political Science.

Social Work

Students who wish to prepare for graduate professional training in social work will find a brief description of the program of the School of Social Work on page 45. Detailed information about courses and curricula, as well as requirements for admission, will be found in the catalog of the School of Social Work.

Teaching

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

Application for admission to the Teacher Education Program should be made during the second or third quarter of the sophomore year in the office of the Dean of the College of Education, 212 Claxton Education Building. Criteria for admission are: (1) a 2.2 cumulative grade-point average; (2) satisfactory ratings in speech and hearing as determined by tests administered by the Speech and Hearing Center; (3) recommendation of the student's advisor.

One quarter during the senior year must be reserved for student teaching (Education C&I 4710-20). Application for student teaching must be filed not later than January 1 of the year preceding the academic year in which the student teaching will be undertaken. Those planning to teach during the 1978-79 academic year must apply by January 1, 1978. Curricula for students seeking teacher certification should include the following:

1) English 1510-20 or 1518-28
2) 16 hours, representing at least 3 fields, including:
   (a) 4 hours of 2000-level English
   (b) 12 hours of the students' choice from anthropology, art, English literature, Library and Information Science 3510-20-30, foreign language (beyond the elementary level), history, upper division, music, philosophy, or religious studies
3) Language, literature, and the Arts: 0-24 hours, the number of hours and choice of courses depending upon the options selected and the choices made in (2) above
4) History and Society:
   (a) One of the 8-hour historical sequences in category (a) of the triad list
   (b) Psychology 2500 or 2518
   (c) 4 hours from anthropology, economics, geography, human services, political science or sociology courses on the triad list
   (d) 0-8 additional hours of the student's choice from courses on the triad list, the number of hours depending upon choices made in (2) above
5) Science and Mathematics:
   (a) One of the 8-hour natural science sequences in category 1 or 2 of the triad list
   (b) 4 additional hours of natural science courses in categories 1 and 2
   (c) 4 hours of mathematics courses in category 4
   (d) 8 additional hours of the student's choice from courses on the triad list
6) Speech 2311
7) 7 hours in health and physical education, including at least 3 hours of school health, public health, or nutrition and 2 hours of physical education
8) Professional Education courses:
   (a) Education C&I 3010-20-30
   (b) Educational Psychology 3810
   (c) 6 hours of appropriate methods courses
   (d) Education C&I 3521-22-23
   (e) Education C&I 4710-20 (student teaching)
   (f) 6 hours of electives from the College of Education
9) Additional courses necessary to complete Liberal Arts major(s)
10) Additional courses required for certification in teaching subject area(s) (Consult Certification Clerk, 212 Claxton Education Building)

NOTE: The same course may be applied both to certification requirements and to triad or major requirements of the College of Liberal Arts.

*Admission to the Teacher Education Program is prerequisite for Education C&I 3010, 3030, and 4710-20.

Theology

Students planning to study theology should follow one of the Bachelor of Arts curricula. Any liberal arts major is acceptable for admission to most theological schools; strong preparation in literature, philosophy, history, religious studies, and social science is desirable. Students may wish to consult with faculty members in the Department of Religious Studies in planning their programs.

General Information

Admission to the College

For information regarding admission to the College of Liberal Arts, see page 16.

Course Load

The average course load in the College for any quarter is 14-16 credit hours. The University defines full-time undergraduate students as those who register for a minimum of 12 hours. The maximum number of hours which may be taken by Liberal Arts students is 17, exclusive of elective work in ensemble music and physical education. Exceptions to this rule will require approval by the Assistant Dean for Student Academic Affairs (218 Ayres Hall).

The 17 credit limit was one of three means chosen to implement a 1972 decision by the College faculty to reduce the average number of courses carried by students. A second means has been to introduce four-credit courses into the curriculum on a broader scale than ever before. Using such courses the credits achieved by students each quarter would remain substantially the same as in quarters prior to this innovation but would be generated with fewer courses. A final means has been to decrease the total number of hours required for the degree. The effect of the load reduction is to provide an opportunity for a deeper, more thorough learning experience in the courses which are taken.

Lower Division—Upper Division

Courses numbered at the 1000 and 2000 levels are considered Lower Division and are normally taken by students in the freshman and sophomore years. Courses numbered 3000 and above are Upper Division and are designed for students at the junior and senior level.

Satisfactory/No Credit Courses

A few courses in the College are offered only on a Satisfactory/No Credit basis and students may elect to take others on this basis, except in areas where the option is specifically prohibited. Such courses, if
departments may limit the number of hours which may be applied toward a specific major.

**Independent Study**

Certain educational goals may best be met through independent study done by an individual under the direction of a faculty member. Students who wish to do such independent work should obtain the approval of the faculty members and the departments concerned prior to embarking upon their study. Credit per quarter will vary from 1-16 hours. Up to 24 hours of credit earned in this way may be applied toward a degree in the College of Liberal Arts, although individual students or departments may limit the number of hours which may be applied toward a specific major.

**Study Abroad and Foreign Study Courses**

Several opportunities for study abroad are available to students in the College of Liberal Arts. One avenue is through group programs arranged and supervised by departments of the College on a full-summer or semester basis. A second is through programs conducted and organized by academic institutions to which UTK students may wish to enroll for credit. Assistance in identification and registration in such programs may be obtained through the Overseas Study Information Service located in the University's Division of International Education. A third opportunity is through individualized programs under the foreign study number 4101. The nature of this work as well as credit for it should be negotiated by students prior to departure with the appropriate Liberal Arts departments. Credit will be awarded only after completion of all agreed upon requirements, and may vary from 1-16 hours in any one department. Up to 24 hours of such credit, exclusive of that earned in group programs offered by departments, could apply toward a degree in the College. Departments may in any of the above forms, however, limit the hours of credit which can be applied toward a given major.

**Liberal Arts Advising Center**

Academic advising for students of the College is offered through the Liberal Arts Advising Center, 220 Ayres Hall, as well as through the several major departments. The Advising Center is staffed on a regularly scheduled basis by members of the College faculty, each of whom has been trained for this specialized work. Students in their first quarter of residence are assigned to the Advising Center, where they may relate themselves to a particular adviser of their choice or consult the person on duty at the time they need assistance. Most students continue in this relationship with the Advising Center until they have declared their major, normally by the beginning of the junior year, at which time they may be transferred for advising to a faculty member in the major department.

**Student Academic Affairs Office**

Academic assistance for students is also provided through the Student Academic Affairs Office, 218 Ayres Hall. This office serves primarily those students not assigned to the Liberal Arts Advising Center, helping them meet a variety of academic needs relating to the development of their academic programs, satisfying graduation requirements, etc. For those who are planning careers in the health sciences it provides a liaison with the College of Health Sciences. Each quarter the Student Academic Affairs Office issues the Liberal Arts Quarterly Bulletin in order to keep students informed about changes in the College curriculum as well as matters relating to registration, courses, and requirements.

**Office of Black Studies**

The Office of Black Studies, 812 Volunteer Blvd., cooperates with the various departments and colleges of the University with respect to the development of curricular changes and innovations which incorporate the Black experience into academic and extracurricular programs of the institution, supplies information on financial assistance for Black students, and serves as the focal point for the coordination and development of an improved and expanded Black Studies Program at the University.

**Black Cultural Center**

The Black Cultural Center represents one effort by the University to promote greater awareness of the nature of the Black experience and the contribution of Black America to the national past. The Center seeks to fulfill this role through a variety of programs and occasions. Typical of its cross-campus work is sponsorship of Black History Week, and the Black Arts Festival. Within the Center itself exhibits related to the Afro-American past, small group lectures, group study sessions, and a tutorial program aimed especially at minority students are a few of the ongoing activities.

The Center is located at 812 Volunteer Blvd. All members of the University community are invited to visit this location and utilize the opportunities provided by the Center for increased knowledge about the Black experience. For further information contact the Director.

**Bureau of Public Administration**

The University has established in the College of Liberal Arts a Bureau of Public Administration, for the purpose of promoting sound governmental administration through research, publication, and consultation. Offices and staff are maintained in both Knoxville and Nashville. The head of the Department of Political Science serves as Director of the Bureau of Public Administration.

**Psychological Clinic**

The Psychological Clinic is an outpatient psychodiagnostic and treatment center established by the University within the Department of Psychology. It provides advanced graduate training for students in clinical psychology and also serves as a training facility for graduate students in the School of Social Work. Referrals for treatment come from many sources, including self-referrals and referrals by relatives and friends and by various social and mental health agencies. Treatment services are available to anyone regardless of residence, sex, age, race, or citizenship.
University Theatres
The Department of Speech and Theatre offers a full schedule of dramatic presentations in three different theatres. The Clarence Brown Theatre has outstanding facilities for prosenium and open staging and for film productions, and, in a separate Studio Theatre, for laboratory productions. Carousel Theatre is designed for arena staging, and can be converted for open-air performances in the summer. Hunter Hills Theatre, located in the foothills of the Great Smoky Mountains near Gatlinburg, is an outdoor theatre in which performances are offered during the summer months.

Instructional Facilities
The College of Liberal Arts carries out its varied teaching and research activities in more than two dozen principal buildings in two areas of the campus, as well as in a number of converted residences which provide office, studio, or clinical space. The older of the two clusters of buildings is on "The Hill," and includes Ayres Hall (psychology and mathematics), Austin Peay (psychology), Hesler (biological sciences), Physics (physics and astronomy), Geology-Geography (geology and geography), and Daubney and Buehler (chemistry). West of "The Hill" is a recently built group of buildings for the humanities, social sciences, and fine arts: McClung Tower and the Humanities-Social Sciences classroom building (classics, English, foreign languages, history, human services, philosophy, political science, religious studies, sociology, and speech and theatre), the Music Building (music), and the Hearing and Speech Center (audiology and speech pathology). In this area also are the McClung Museum and the Clarence Brown and Carousel Theatres, as well as the Undergraduate Library. Anthropology is housed in South Stadium, and art utilizes several small buildings for its studios.

College Offices
The College Administrative Office is in 226 Ayres Hall and houses the office of the Dean/Associate Dean as well as the office of the Curriculum and Special Programs. The Student Academic Affairs Office is in 218 Ayres Hall. The Liberal Arts Advising Center is in 220 Ayres Hall.

Departments of Instruction
Numbers in parentheses following the course titles indicate quarter hours credit offered.

American Studies
See Cultural Studies.

Anthropology (122)
Professors: W.M. Bass (Head), Ph.D. Pennsylvania; C.H. Faulkner, Ph.D. Indiana; A.K. Cuthbert, Ph.D. Michigan; P.W. Parmalee, Ph.D. Texas A&M.


UNDERGRADUATE
A major in anthropology shall consist of 39 hours, 12 of which are to be in the introductory 2000 level courses. Of the remaining 27 hours, 4480 and six hours of 3000 level or above courses are required in each of these subfields: (a) Cultural; (b) Physical; and (c) Archaeology.

(a) Cultural: 3410, 3440, 3510, 3530, 3540, 3710, 3800, 4200, 4210, 4240, 4250, 4259, 4410, 4420, 4430, 4500, 4510, 4550, 4570, 4590, 4740.

(b) Physical: 3900, 3920, 3930, 4930, 4950, 4960, 4970.

(c) Archaeology: 3610, 3620, 3630, 3640, 4500, 4600, 4640, 4850.

A minor in anthropology consists of 27 hours including 3610, 3620, 2520, 2530 introductory courses.

2510 Human Origins (4) Non-technical survey of man's prehistoric background, fossil primates, fossil man, and living races of mankind.

2520 Prehistoric Archaeology (4) Survey of prehistoric culture with specific emphasis on method and theory in archaeology; prehistory of western Europe and Africa; and archaeology in Americas.

2530 Human Culture (4) Introduction to ethnology: Survey of nature of culture and society and similarities and differences in man's material culture, social, economic, and political organizations, his ideology, art, and language.

3070 Genetics and Society (3) (Same as Botany 3070.)

3410 Principles of Cultural Anthropology (3) Basic concepts and objectives in study of culture. Range of cultural phenomena and approaches to its study 2530 recommended.

3440 Religion of Primitive Peoples (3) Religions of nonliterate peoples. Place of religion in their social and cultural systems. 2530 recommended. (Same as Religious Studies 3440.)

3450 Community Studies in Complex Culture (3) Review of cross-cultural comparative urban and village communities and methodologies used in community studies. 2530 recommended.

3490 African Religions (4) Same as Religious Studies 3480 and Black Studies 3490.

3510 Peoples and Cultures of Mainland Asia (3) Ethnographic survey of indigenous cultures of mainland Asia. Cultural diversity and human ecology in a real perspective. 2530 recommended.

3530 Peoples and Cultures of Africa (3) Ethnographic survey of indigenous cultures of sub-Saharan Africa. Cultural diversity and human ecology in a real perspective. 2530 recommended.

3540 North American Indians (3) Ethnographic survey of cultures of Arctic, Southwest, Plains and Eastern tribes. Emphasis on cultural differences of peoples occupying these areas during pre-colonial period. 2530 recommended.

3555 Cherokee Ethno History (3) Survey of sociopolitical aspects of internal affairs and external relationships from first European contact to present. Emphasis on 18th and 19th centuries.

3575 Afro-American Anthropology (3) Anthropological perspectives on Blacks in New World: examination of Afro-Americans via anthropological theories and methodology.

3580 Peoples and Cultures of Mesoamerica (3) Ethnographic survey of aboriginal peoples and post-conquest changes in Indian cultures. Emphasis upon analysis of small rural communities using modern village studies as source material. Recommended prerequisite: 2530.

3610 Archaeology of United States and Canada (3) Survey of prehistoric peoples north of Mexico from initial occupation to European contact. 2530 recommended.

3620 European Prehistory I (3) Cultural development during Paleolithic, Mesolithic, and Neolithic periods. 2520 recommended.

3630 European Prehistory II (3) Cultural developments during Metal Ages. From close of Neolithic through Iron Age. 2520 recommended. 3620 and 3630 should be taken in sequence.

3640 Ancient Civilization of Mesoamerica (3) Introduction to archaeology of areas of advanced Indian culture in Mexico and Central America beginning with earliest cultures and proceeding to contact with Europeans. 2520 recommended.

3660 Prehistory of Tennessee (3) History of archaeological research in Tennessee and survey of prehistoric American Indian cultures identified through research.

3710 European Folk Culture (3) Traditional aspects of life as expressed in technology, beliefs, art, and folklore, under changing historical and socioeconomic conditions.

3800 Language and Culture (3) Relationship between linguistic categories and patterns of culture. Knowledge of linguistics not required. 2530 recommended.

3811 Introduction to Museology (3) (Same as Art 3811.)

3900 Human Osteology (4) Intensive examination of the human skeleton. Prereq: 2510 or permission of instructor. 3 hrs and 1 lab.

3920 Principles of Physical Anthropology (3) Survey of materials and methods in physical anthropology. 2510 recommended.

3930 The Biology of Races of Man (3) Processes of racial differentiation; criteria of significant differences among existing stocks; influence of biology and culture in race formation; analysis of studies concerning blood groups, race mixture, constitution growth and nutrition. 2510 recommended.

3950 Human Identification (3) Introduction to techniques in identification of human skeletal material in Forensic Medicine.

4101 Foreign Study (1-16) See page 177.

4102 Off-Campus Study (1-16) See page 177.
4490 Cross-Cultural Survey of Sex Roles and Behavior (3) Examination of sex roles and behavior from cross-cultural and diachronic viewpoints. Draws disparate and scattered studies together and attempts to arrive at conclusions on questions. Prereq: 2500 or permission of instructor. Recommended: 3510 or an East Asian course.

4510 Peoples of China II: Chinese Society After 1839 (3) Anthropological survey of Chinese society and culture in the period of intense Western contact, rejection of the West, and development of modern, communist Chinese society and culture. Prereq: 2530 or permission of instructor. Recommended: 3510 or an East Asian course.

4550 Indians of the Southeastern United States (3) Survey of Southeastern Indian cultures; emphasis on aboriginal adjustment to environment; lifeways of Southeastern Amerind groups prior to Euro-American contact. Prereq: 2530, 3540 or permission of instructor.

4560 Cherokee Ethnology (3) Intensive survey of ideology and material aspects of Cherokee culture existing at times of first European contact.

4750 Peoples of Southeast Asia (3) Survey of representative ethnic groups and indigenous cultures of mainland and island Southeast Asia. Problems of contemporary culture changes. Prereq: 2530, permission of instructor, or an East Asian course.

4580 Asians in the Americas since 1800: Anthropological Perspectives (3) Character, factors, and motivations in Asian immigration to North, Central and South America. Assimilation pattern and enclave communities are major topics. Major focus is on United States.

4590 Peoples of Japan (3) Analysis of cultural diversity and unity of peoples of Japan. Prereq: 2530 or permission of instructor. Recommended: 3510 or an East Asian course.

4600 Method and Theory in American Archaeology (3) Historical development of New World archaeology with emphasis on theory and field techniques. Prereq: 2500 or permission of instructor.

4610 African Prehistory (3) Survey of cultural history in Africa, south of the Sahara, from earliest evidence of human activity to time of European contact. Prereq: 2530 or permission of instructor.

4640 Zooarchaeology (3) Basic osteological studies of vertebrate classes; emphasis on aboriginal man's utilization of native animals in his subsistence and culture. Identification, analysis, and interpretation of archaeologically derived molluscan and vertebrate remains.

4850 Archaeology of Southeastern United States (3) Intensive study of prehistoric American Indian. Special emphasis on Tennessee prehistory. Prereq: 3610 or permission of instructor.

4740 Southern Appalachian Folk Culture (4) Research-oriented course dealing with wide range of traditional culture in Southern Appalachia: settlement patterns, folk housing, economy, clothing, belief, speech, art, song, dance, and oral traditions and customs. Prereq: 2530 or permission of instructor. May be repeated for credit.

4870 Cherokee Language (3) Linguistic survey of the structure of the Cherokee language.

4930 Physical Growth and Constitution (3) Comparative growth patterns throughout the life cycle of man, skeletal and dental maturational differences in growth; human constitutional types. Prereq: 2510 or permission of instructor. Biology 2110 strongly recommended.

4950 Primate Studies (3) Survey of field and laboratory investigations of comparative anatomy and non-human primate behavior. Prereq: 2510 or permission of instructor.

4960 Primate Paleontology (3) Survey of fossil primate forms; origin and evolution of major primate lineages; emphasizing the earliest Hominid and related forms. Prereq: 2510. Recommended: Zoology 4380.

4970 Human Paleontology (3) Survey of major human fossil forms and interpretation of human phylogeny. Emphasis on Pleistocene and more recent Hominid forms and factors which shaped them into modern man. Prereq: 2510. Recommended: 4960 and Zoology 4380.

GRADUATE
The general requirements for the Master's and Doctor's degree are given in the Graduate Catalog.

5000 Thesis
5010 Graduate Research (1-9)
5010 Seminar in Cultural Anthropology (3, 3, 3)
5011 Foreign Study (1-12)
5021 Off-Campus Study (1-12)
5103 Independent Study (1-12)
5140 Seminar in Zooroarchaeology (3)
5149 Laboratory Studies of the Vertebrate Skeleton (4)
5159 Laboratory Study of the Mollusca (4)
5160 Seminar in Archaeology (3-9)
5210 Community Anthropology: The Local Community (3)
5340 Fieldwork in Archaeology (3-9)
5400 History of Anthropological Theory (3)
5440 Peasant Societies (3)
5450 Comparative Social Organization (3)
5460 Quantitative Methods in Anthropology (3)
5470 The Healer in Cross-Cultural Perspective (3)
5510 Seminar in Ethnology of Western North America (3)
5600 Theory in Archaeology (3)
5610 Problems in North American Archaeology (3)
5620 Problems in Old World Archaeology (3)
5630 The Maya (3)
5640 Archaeological Resource Management (3)
5660 Seminar in Prehistoric Lithic Technology (3)
5670 Seminar on Aboriginal Lithic Resources (3)
5700 Theory in Folk Culture Studies (3)
5710 Problems in Folk Culture Studies (3)
5900 Dental Anthropology (3)
5910 Measurement of Man (3)
5920 Advanced Physical Anthropology (3)
5930 The Human Skeleton in Forensic Medicine (3)
5940 Skeletal Biology of Early Human Population (3)
5945 Comparative Primate Anatomy (4)
5950 Paleopathology (4)
5960 Dermatoglyphics (3)
5970 Emergence and Early Evolution of Man (3)
Art (140)

For information regarding the Bachelor of Fine Arts degree, see page 172.

1115-22-35 Studio Fundamentals (4, 4, 4) 1115—Drawing into the illusion of space: 1125—Surface composition and color; 1135—Real space and volume. For art, architecture, related arts and art education majors. Others with permission of instructor only.

1815-25 World Art (4, 4) 1815—pre-history to 1400; 1825—1400 to present. 2008 Honors: Art (4) Intensified study for the exceptional student. May be repeated for a maximum of 24 credit hrs.

2105 Introduction to Drawing (4) Prereq: 1115. 2115 Drawing II (4) Prereq: 2105. May be repeated for a maximum of 8 credit hrs.

2116-17 Intermediate Design (4, 4) 2116—Motion picture as primary tool of research; 2117—Color theory and application. Prereq for 2117: 1115-25-35.

2205 Introduction to Painting (4) Oil, acrylic and watercolor. Prereq: 1115-25-35 for art majors.

2215 Painting II (4) Oil and acrylic. Prereq: 2205. May be repeated for a maximum of 8 credit hrs.

2315 Watercolor II (4) Prereq: 2205. May be repeated for a maximum of 8 credit hrs.

2405 Introduction to Sculpture (4) Prereq: 1115-25-35 for art majors.

2415 Sculpture II (4) Prereq: 2405. May be repeated for a maximum of 8 credit hrs.


2515-26 Graphic Design (4, 4) 2515—Lettering and layout; 2525—Production. Prereq: 2505 for 2515; 2525 for 2526.

2516 Advertising Design (4) Fundamentals of lettering and layout for newspaper, magazine television, outdoor advertising. Non-art majors only.

2545-55 65 Photo-Graphics (4, 4, 4) Introduction to art of photography.

2605 Introduction to Printmaking (4) Relief, lithography, intaglio, and screen printing. Prereq: 1115-25-35 for art majors.

2615 Intaglio II (4) May be repeated for a maximum of 8 credit hrs.

2616 Lithography II (4) May be repeated for a maximum of 8 credit hrs.

2617 Screen Printing II (4) May be repeated for a maximum of 8 credit hrs.

2715 Survey of Contemporary Art (4) 1945 to present.

2725 Black Art (4) Black artists in society. Emphasis on contemporary art forms.

3008 Honors: Intermediate Art (4) Intensified study for the exceptional student. May be repeated for a maximum of 24 credit hours.

3115 Drawing III (4) May be repeated for a maximum of 12 hours. Prereq: 8 hours of 2115.


3215 Painting III (4) May be repeated for a maximum of 12 hours. Prereq: permission of instructor.

3315 Watercolor III (4) May be repeated for a maximum of 12 credit hours. Prereq: permission of instructor.

3415 Sculpture III (4) May be repeated for a maximum of 12 hours.

3515 Visual Communications I (4) Graphic design, theory and techniques of problem solving for printed material. Prereq: 2255.

3516 Typography (4) Theories and techniques of typography and printing as a fine art medium. May be repeated for a maximum of 12 credit hours.

3517 Airbrush (4) Techniques and creative applications. May be repeated once for credit.

3525 Visual Communications II (4) Advanced pictorial perception, concepts, methods, and techniques for designer. Prereq: 3525.


3615 Intaglio III (4) May be repeated for a maximum of 12 hours.

3616 Lithography III (4) May be repeated for a maximum of 12 hours.

3617 Advanced Screen Printing (4) May be repeated for a maximum of 12 hours.


3705 Northern European Painting: 1350-1600 (4) Painting and printmaking of the low countries, France, Germany, and England, includes international style manuscripts, van Eyck, Bosch, Durer, Holbein, and Bruegel.

3715 Early Italian Renaissance Art: 1300-1500 (4) Painting, sculpture, and architecture. Includes Giotto, Masaccio, Donatello, Brunelleschi, Alberti, Botticelli, and Leonardo.


3726 Art of Northern Europe in Seventeenth and Eighteenth Centuries (4) Emphasis on Rembrandt, Vermeer, Hals, Rubens, Poussin, Callot, Georges de la Tour, Watteau, David, urban development of Paris and London, and pilgrimage churches of Southern Germany.

3735 History of Nineteenth-Century Painting in Europe and America (4) Emphasis on France: Neo-Classicism, Romanticism, Friedrich, Constable, Turner, Corot and Barbizon landscapists, Hudson River Group, Pre-Raphaelite Brotherhood, Manet, Courbet, Impressionism, Eakins, Homer, Seurat through Cézanne.

3736 History of Twentieth-Century Painting in Europe and America (4) Fauvism, Die Brücke, Cubism, Der Blaue Reiter, Futurism, Dada and Surrealism; geometric abstraction, social commentary, abstract expressionism, Abstract Expressionism in the U.S.A. and parallels in Europe, Pop, Op, Minimal, and Concept Art.


3746 History of Modern Sculpture in Europe and America (4) From 1800 to 1900: Neo-Classicism to Rodin. From 1900 to present: emphasis on Cubism, Constructivism, Expressionism, Assemblage, Pop, Primary Forms, Environments, and Earthworks.

3755-56-57 Studies in Art History (4, 4, 4) Concentration in selected areas. Prereq: 12 hours of art history or permission of instructor.
5002 Non Thesis Graduation Completion (3)
5011-21-31 Exhibition in Lieu of Thesis (3, 3, 3)
5101 Foreign Study (1-12)
5102 Off-Campus Study (1-12)
5103 Independent Study (1-12)
5110-20-30-40-50-60 Drawing and Composition (3, 3, 3, 3, 3, 3)
5210-20-30-40-50-60 Oil Painting (3, 3, 3, 3, 3, 3)
5310-20-30 Watercolor Painting (3, 3, 3)
5340-50-60 Watercolor (3, 3, 3)
5410-20-30-40-50-60 Sculpture (3, 3, 3, 3, 3, 3)
5510-20-30-40-50 Communication Design (3, 3, 3, 3, 3)
5610-20-30 Intaglio (3, 3, 3)
5611-21-31 Lithography (3, 3, 3)
5612-22-32 Screen Printing (3, 3, 3)
5770 Seminar in Art History (3)
5855-56-57 Reading and Research in Art History (2, 2)
5900 Seminar in Art Criticism (3)

Asian Studies
See Cultural Studies.

Astronomy
See Physics and Astronomy.

Audiology And Speech Pathology (160)
Professors:
H.L. Luper (Head), Ph.D. Ohio State; S. Adler, Ph.D. Ohio State; C.W. Asp, Ph.D. Ohio State; D.M. Lipseth, Ph.D. Washington; H.A. Peterson, Ph.D. Illinois; B. Silverstein, Ph.D. Purdue.

Associate Professors:
S.B. Burchfield, Ph.D. Michigan State; P.J. Carney, Ph.D. Iowa; C.G. Maisel, M.Ed. Texas; I.V. Nabele, Ph.D. Czech Technical, Prague.

Assistant Professors:
T.O. Davidson, M.A. Tennessee; C.J. Ferrell, M.A. Tennessee.

Instructors:

General Information. One of mankind's most significant developments has been the acquisition of organized systems of communication. Basic to most human language systems has been dyadic oral-aural communication. The Department of Audiology and Speech Pathology offers course work in the scientific study of oral-aural communication with special attention to variations considered normal or different. Many of the courses offered in the department cover information that should be valuable to students planning to enter any social service discipline. Suggested electives for non-departmental majors include: 3010, 3040, 3050, 3070, 3710, 4720, and 4750.

Majors. The two majors (audiology and speech pathology) within the department are preprofessional; therefore, they are preparatory to graduate work and to professional certification in some aspect of communicative disorders. The Master's degree is required for most professional certificates and employment positions. Within the broad coverage of audiology, it is possible for a student to specialize to a limited extent by choosing elective courses which emphasize traditional-diagnostic audiology or aural habilitation-rehabilitation. Students in speech pathology may specialize to a limited extent by choosing elective courses which emphasize speech disorders, language disorders, or cultural language differences. Students desiring school certification in speech and hearing or education of the deaf should consult the Department of Special Education and Rehabilitation for specific requirements. A major in audiology consists of Audiology and Speech Pathology 3010, 3050, 3200, 3310, 3710, 4040, 4450, 4720, 4930 plus not less than 10 or more than 22 credit hours from the following: 3065, 4260, 4460, 4470 and 4940.

Additional recommended courses for audiology majors are Audiology and Speech Pathology 4560, 4610, 4750 and Psychology 2500, 2540 and 3150.

A major in speech pathology consists of Audiology and Speech Pathology 3010, 3050, 3065, 3200, 3310, 4040, 4320, 4330, 4650, 4720, plus not less than 9 or more than 15 credit hours from the following: 3070, 4310, 4340, 4450, 4460, 4910, 4930, 4940.

Additional recommended courses for speech pathology majors are: Audiology and Speech Pathology 4520, 4450, 4460, 4470, 4750, Anthropology 2530 or 3410, Psychology 2500, 2520, 2530, 2540, 3150, Special Education 4030, 4341, 4342, 4110, 4120, 4130, 4610, and Child and Family Studies 4810.

1261 English Pronunciation for Foreign Students (3)

3010 Basic Acoustics in Speech and Hearing (4) Fundamental aspects of acoustics in speech and hearing, including physics of sound.

3040 Introduction to Speech Pathology and Audiology (3) Nature, etiology, incidence of speech, hearing, and language disorders. Cannot be used to satisfy requirements of major in audiology or speech pathology.

3050 Speech Science I: Phonetics (4) Basic phonetics including recognition and production of spoken English sounds with analysis of their formation; acoustic characteristics of speech and speech perception. Prereq: 3010.

3065 Speech Science II (4) Anatomy and physiology of speech production mechanism. Prereq: 3050.

3070 Psychology of Speech (3) Psychological factors in speech and language behavior.

3200 Speech and Language Development (4) Speech and language development in the normal child including development of distinctive features and implications of this process on diagnosis of speech and language development. Prereq: Psychology 3550 or Education 2430.

3310 Articulation Disorders (4) Etiology, diagnosis, and treatment of articulatory defects. Prereq: 3050. (Same as Special Education 3310.)

3710 Audiology (4) Fundamental aspects of normal hearing including anatomy and physiology of ear and basic audiometric procedures. Prereq: 3010. (Same as Special Education 3710.)
4580 Problems in Audiology (1-4) May be repeated to maximum of 6 hrs credit. Prereq: Permission of instructor.

4610 Introduction to Language Pathology in Children (4) Prereq: Audiology or speech and language retardation. Observation in language clinic is available. Prereq: 3200.

4650 Speech and Language of the Culturally Different Child (3) Discussion of speech and language differences of children of various minority groups, of different ethnic and class membership and from different geographic regions; their causes, and their effects upon educational programs.

4700 Audiology for Educators of the Deaf (4) Fundamental aspects of hearing, including physics of sound, anatomy and physiology of the ear, etiology and rehabilitation of hearing loss and basic audiometric techniques. May not be used to satisfy requirements of major in audiology and speech pathology. (Same as Special Education 4700.)

4719 Audiology Laboratory (1) Prereq: Permission of instructor. Undergraduate credit only. (Same as Special Education 4719.)

4720 Audiology II (4) Prereq: 4720. Etiology and rehabilitation of hearing loss including pediatric and geriatric aspects, medical treatment and diagnostic audiology. Prereq: 3710. (Same as Special Education 4720.)

4750 Noise in the Environment (3) Discussion of extent to which noise problem exists, introduction to methods of noise measurement, basic techniques in sound and vibration abatement, acoustical factors, and physiological concomitants in noise stimulation. Knowledge of acoustics is advisable.

4930 Aural Rehabilitation: Speechreading and Auditory Training (4) Speechreading as a receptive language process and development of maximum use of residual hearing in acoustically handicapped. (Same as Special Education 4930.)

4939 Laboratory in Aural Rehabilitation (1) (Same as Special Education 4939.)

4940 Advanced Aural Rehabilitation (4) Prereq: 4930 or permission of instructor. (Same as Special Education 4940.)

GRADUATE

5000 Thesis

5002 Non-Thesis Graduation Completion (3)

5040 Advanced Clinical Practice in Audiology (1-6)

5050 Practicum in Aural Habilitation (1-6)

5051 Practicum in Aural Rehabilitation (1-6)

5060 Anatomy and Physiology of Speech (3)

5070 Anatomy and Physiology of Hearing (3)

5071 Physiological Acoustics (3)

5100 Comparative Anatomy of Peripheral Auditory Structures (3)

5110 Introduction to Research in Speech and Hearing (3)

5119 Instrumentation in Speech and Hearing Science (3)

5200 Seminar on Stuttering (3)

5201 Aphasia (3)

5320-30-40 Advanced Clinical Practice in Speech Disorders (1-6, 1-6, 1-6)

5350-60-70 Advanced Clinical Practice in Speech Diagnosis (1-6, 1-6, 1-6)

5380 Cerebral Palsy (3)

5390 Cleft Palate (3)

5440 Hearing Aid Evaluation (3)

5450 Sound Measurement and Analysis in Hearing Conservation (3)

5460 Differential Diagnosis of Auditory Disorders (3)

5470 Impedance Measurement in Audiology (3)

5500 Seminar in Audiology (3)

5503 Seminar in Advanced Audiological Procedures (3)

5520 Seminar in Speech Pathology (3)

5540 Seminar in Language Pathology (3)

5550 Special Problems in Speech Pathology (1-3)

5560 Independent Study in Speech Pathology (1-3)

5600 Independent Study In Audiology (1-6)

5610 Practicum: Language Pathology in Children (3)

5651 Seminar in Language Differences (3)

5700 Seminar in Psycholinguistic Concepts in Speech Pathology (3)

5950 The Verbo-tonal System (3)

6000 Doctoral Research and Dissertation

6010 Experimental Phonetics (3)

6020 Psychoacoustics (3)

6050 Applied Anatomy and Physiology of Speech Mechanism (3)

6070 Experimental Techniques in Cochlear Physiology and Neurophysiology (3)

6080 Seminar in Speech Science (3)

6090 Seminar in Hearing Science (3)

6110 Experimental Design in Speech and Hearing (3)

6117 Theories of Hearing (3)

6500 Advanced Seminar in Audiology (3)

6520 Advanced Seminar in Speech and Language (3)

6560 Directed Research (1-6)

6570 Directed Study in Speech Pathology (1-3)

6580 Directed Study in Audiology (1-3)

6590 Directed Study in Speech Science (1-3)

6600 Directed Study in Hearing Science (1-3)

Bacteriology

See Microbiology.

Biochemistry (188)

Professors: J.W. Greenwalt (Head), Ph.D. Purdue; J.E. Churchich, Ph.D. Sheffield (England); K.J. Monty, Ph.D. Rochester; T.P. Salo, Ph.D. Michigan

Associate Professor: J.G. Grosh, Ph.D. Poona (India).

Assistant Professors: R.H. Feinberg, Ph.D. California (Berkeley); S.W. Hawthorn, Ph.D. Chicago; L. Huang, Ph.D. Michigan State.

UNDERGRADUATE

No major is offered, although course work in biochemistry is applicable to majors in biology, and chemistry.

For the Bachelor of Arts Degree with a minor in biochemistry, the following courses are required: Chemistry 2140-49, 3211-21-31.
610 Functions of the Trace Elements (1)
6210 Structure and Function of Macromolecules (1)
6220 Biochemical Genetics (1)
6230 Metabolic Regulation (1)
6310 Biological Energy Transformations (1)
6320 Antigen-Antibody Interactions (1)
6330 Biochemistry of Specialed Physiological Processes (1)
6410-20-30 Current Topics in Biochemistry (2, 2, 2)

Biology (190)

Coordinator: K.J. Monty

A major in biology may be met by completing one of the two following concentrations:

A. Concentration in Cell Biology. Consists of Biology 3110-20-30, Chemistry 3211-21-31, 3219-29-39, Biochemistry 4110-20, and 12 hours from any upper division courses in biochemistry, botany, microbiology, and zoology. Prerequisites to this concentration are: Biology 1210-20-30 or Botany 1110-20 or 1118-28 or Zoology 1118-28; Chemistry 1110-20-30. Corequisites are: Math 1840-50; a year sequence in physics (except 1410-20-30); and Chemistry 2140-49.

B. Concentration in Organismal and Systems Biology. Consists of Biology 3110, 3120, 3130, Chemistry 3211-21-31, 3219-29-39, and 18 hours from approved upper division courses in biochemistry, botany, microbiology, and zoology. Prerequisites to this concentration are: Biology 1210-20-30 or Botany 1110-20 or 1118-28 or Zoology 1118-28; Chemistry 1110-20-30. Corequisites are: Math 1840-50 or 1550-60 (Math 1840-50 is recommended choice); a year sequence in physics (except 1410-20-30) or Geology 1510-20.

Note: Students majoring in biology are advised to exercise care in fulfilling the science and mathematics triad requirements. Math 1840-50 (or in some cases 1550-60) and Chemistry 1110-20-30 or equivalent (20 hours altogether) must be completed by biology majors. Students majoring in biology are advised to consider completion of a physical science minor (page 211.)

Minor: Consists of Biology 3110-20-30 and 12 hours of upper division courses chosen from the list below. Biochemistry 4110-20, 4119, 5010; Botany, any 3000- or 4000-level courses; Microbiology, any 3000- or 4000-level courses; Zoology, any 3000- or 4000-level courses except 3010-20-30. (In meeting the upper division minimum requirement, not more than 10 hours may be credited from any one biological science department, and not more than 4 hours of research courses may be credited.) Prerequisites to the minor are: Introductory Biology courses (Biology 1210-20-30 or Botany 1110-20 or 1118-28 or Zoology 1118-28; Chemistry 1110-20-30). Note: Certain upper division courses require organic chemistry or other prerequisites—consult the catalog description in each case.

1210-20-30 General Biology (4, 4, 4) 1210-Biology of cells: chemical basis of life, cell structure and function, energy metabolism, cell division, DNA, RNA, and protein synthesis. Monera, Protista, and Fungi. 1220-Biology of plants and animals: survey of plant kingdom, structure and function of plant tissues, plant growth and reproduction, survey of the animal kingdom, reproduction and development in animals, animal tissue and organ systems. 1230-Ecogenetics, evolution, populations and ecology. May be taken in any sequence. Students who receive credit for 1210-20-30 may not also receive credit for Botany 1110-20, 1118-28 or Zoology 1118-28-36.

3110 General Genetics (4) Classical and modern principles of heredity. Prerequisite: 1210-20-30 or Botany 1110-20 or the equivalent of two years of high school biology and satisfactory ACT scores; Chemistry 1110-20-30. 3 hrs and 1 additional class meeting. May be taken in any sequence or combination with 3120 and 3130.

3120 Cell Biology (4) Organization and function of the cell. Prerequisite: Same as 3110. 3 hrs and 1 additional class meeting. May be taken in any sequence or combination with 3110 and 3130.

3130 General Ecology (4) Relations between organisms and their environment; including human environmental problems. 3 hrs and 1 additional class meeting. Prerequisite: Same as 3110. May be taken in any sequence or combination with 3110 and 3120.

Black Studies

See Cultural Studies.

Botany (198)

Professors: R.W. Holton (Head), Ph.D. Michigan; E.E.C. Clebsch, Ph.D. Duke; H.R. DeSelm, Ph.D. Ohio State; W.R. Herndon (Vice Chancellor for Academic Affairs), Ph.D. Vanderbitt, L.R. Hesler (Emeritus), Ph.D.
ships, morphology and development. Not for botany graduate credit. Prereq: 6 hrs in biological sciences.

3030 Field Botany (4) Study of plants in natural environments including plant identification, collection, preservation and basic ecological concepts. Prereq: 6 hrs in biological sciences. Not for botany graduate credit.

3031-32 Field Botany (4, 4) Emphasis on fall and winter flora, respectively. Prereq: 3030. Need not be taken in sequences.

3050 Socio-Economic Impact of Plants (3) Significance of plants in origin and development of human culture, evolution of cultivated plants, and role of plants in present civilizations. Occasional field trips. Not for botany graduate credit.

3070 Genetics and Society (3) An introduction to genetics, morphology and evolution with emphasis on their implications for human society. Not for botany graduate credit. (Same as Anthropology 3070.)

3090 Biology and Human Affairs (3) Basic biological principles involved in deterioration and preservation of an environment in which man and his cultures may survive. Not for botany graduate credit. (Same as Zoology 3090.

3130 Introductory Plant Pathology (4) Same as Agricultural Science 3130.

3210 Introductory Plant Physiology (4) Organismal physiology of plants; water relations, mineral nutrition, morphogenesis, elements of metabolic processes, effects of age, light, natural rhythms, temperature and other environmental factors. Lecture and lab. Not for botany graduate credit. Prereq: One year's general chemistry and one year of a biological science.

4000 Tutorial in Botany (2) Individual, independent study under guidance of selected staff. By application only. May be repeated with permission of Department.

4030 Mechanisms of Plant Speciation (4) Processes of plant evolution emphasizing population genetics, isolation, drift, hybridization, variation in populations, establishment of population barriers and other aspects of plant speciation. Prereq: 3010-20 and Biology 3110.


4240 Paleobotany (4) (Same as Geology 4240.)

4310 Plant Ecology (4) Interactions between individuals, species, communities and their environments. Circulation of energy and matter in ecosystems. Weekly field trips or laboratory periods, and at least two-week-end field trips. Prereq: 3030 or equivalent.

4410-20-30 Undergraduate Research Participation (2, 2, 2) Experience in active research projects under supervision of staff members. Prereq: Junior or senior standing, minimum grade average 3.0, permission of instructor.

4710-20-30 Senior Seminar (1, 1, 1) At least 2 hours of 4710-20-30 are required of botany majors. Prereq: Senior standing.

GRADUATE

5000 Thesis

5011 Mycology (4)

5012 Morphology and Evolution of Phycocystes (4)

5017 Field Mycology (4)

5021 Bryology (4)

5022 Lichenology (4)

5031 Vascular Plant Taxonomy (4)

5061 Phycology (4)

5070 Principles of Biological Illustration (3)

5080 Pteridology (4)

5090 Morphology and Evolution of Basidicymes (4)

5120 Agrostology (4)

5150 Advanced Morphology of Flowering Plants (4)

5160 Biosystematics (4)

5210 Advanced Plant Physiology I (3)

5220 Advanced Plant Physiology II (3)

5290 Quaternary Problems (4)

5310-30 Special Problems in Botany (1-6, 1-6, 1-6)

5340 Plant Geography (4)

5350 Analysis of Plant Communities (4)

5410-20-30 Seminar in Teaching of College Botany (1, 1, 1)

5510-20-30 Systems Ecology (3, 3, 3)

5780 Plant Cytology (4)

5810 Cytogenetics (4)

5820-21-22-23-24 Methods and Instrumentation in Laboratory Investigations (1, 1, 1, 1, 1)

5830 Field Methods in Plant Ecology (4)

5840 Microbes in Ecosystems (3)

5850-51-52-53-54 Methods and Instrumentation in Field Investigations (1, 1, 1, 1)

5870 Advanced Plant Genetics (4)

5910-20 Developmental Plant Morphology (3, 1)

6000 Doctoral Research and Dissertation

6010 Advanced Topics in Morphology of Vascular Plants (2-4)

6060 Advanced Topics in Cryptogamic Botany (2-4)

6210 Photobiology (3)

6310 Advanced Topics in Cytology and Cell Biology (2-3)

6320 Ecosystems of the World (3)

6420 Advanced Topics in Genetics (2-4)

6620 Seminar in History of Botany (2)

6630-40 Radiation Ecology (2, 2)

6820 Advanced Topics in Plant Physiology (2-4)

6830 Advanced Topics in Ecology (2-4)

6930 Advanced Topics in Systematic Botany (2-4)

Chemistry (235)

Professors:

D.A. Shirley (Head), Ph.D. Iowa State; N.S. Bowman, Ph.D. Princeton; C.A. Buehler (Emeritus), Ph.D. Ohio State; E.W. Bull, Ph.D. Illinois; C.J. Collins, Ph.D. Northwestern; J.A. Dean, Ph.D. Michigan; J.F. Eastham, Ph.D. California (Berkeley); W.H. Fletcher, Ph.D. Minnesota; C.W. Keenan (Associate Dean), Ph.D. Texas; D.C. Kleinfelter, Ph.D. Princeton; M.H. Listteke, Ph.D. Wisconsin; G. Mamantov, Ph.D. Louisiana State; A.D. Melaven (Emeritus), Ph.D. Penn State; G.D. O'Kelle, Ph.D. California (Berkeley); G.K. Schweitzer 1, Ph.D. Illinois; G.P. Smith, Ph.D. Virginia; H.A. Smith (Emeritus), Ph.D. Harvard; W.T. Smith (Emeritus), Ph.D. Ohio State; W.A. Van Hook, Ph.D. Johns Hopkins; T.F. Williams 1, Ph.D. London (England); J.H. Wood (Emeritus), Ph.D. North Carolina.

1 Students with 2 years of high school biology and satisfactory ACT scores may, with the permission of the department, omit the freshman year sequence and enter Biology 3110-20-30 directly (see course listings under biology).

1 Alumni Distinguished Service Professor.
undertake for information regarding the Bachelor of Science in Chemistry degree and the cooperative program in chemistry, see page 175.

There are two alternative routes for the student to take in designing a program for a B.A. degree with a major in chemistry. Concentration A is designed to prepare the student for a career as a professional chemist or for entrance into graduate school in such fields as chemistry, biochemistry, geochemistry, etc. This program has similarities to that leading to the degree of Bachelor of Science in Chemistry, (page 175), but with more opportunity for selection of electives outside the department and outside of science. Unlike the Bachelor of Science in Chemistry degree, the B.A. degree using Concentration A is approved by the Committee on Professional Training of the American Chemical Society.

The prerequisites consist of Chemistry 1110-20-30, Mathematics 1840-50-60, 2840-50, Physics 2510, 2310-20. The concentration consists of Chemistry 2140, 2149, 3211-21-31 or 3511-21-31 (latter recommended), 3219-29-39 or 3219, 3529-39 (latter recommended), 3410-20-30, 3429 plus at least 10 hours of additional upper division work in chemistry. (Up to six hours of Biochemistry 4000-level and above or Geology 4610 may be applied to the ten hour requirement.) While not required, Math 2860 is highly recommended as an elective for majors in this concentration.

Concentration B is designed for students who have career objectives in fields other than chemistry, but in fields where chemistry has direct application, such as medicine, dentistry, pharmacy, law, business and ecology. This concentration, supplemented by appropriate courses from other areas, is suitable for students planning careers in these areas. Concentration B is specifically designed to provide more elective hours which may be employed in fields which are related to chemistry. Concentration B is not appropriate for students intending to become professional chemists.

The prerequisites consist of Chemistry 1110-20-30, Mathematics 1540-50-60 or 1840-50-60 and any of the following natural science options: (a) Physics 2210-20-30 or 2510, 2310-20; (b) Geology 1510-20; (c) Biology 1210-20-30; (d) Biology 3110-20 and Microbiology 3000, 3008; (e) Botany 1110-20.

The concentration consists of Chemistry 2140, 2149, 3211-21-31 or 3511-21-31 (latter recommended), 3219-29-39 or 3219, 3529-39 (latter recommended), 4910-20-30, 4929 plus at least 10 hours of additional upper division work in chemistry. (Up to six hours of Biochemistry 4000-level and above or Geology 461G may be applied to one of the ten hour requirement.) A minor in chemistry shall consist of the successful completion of 12 hours of chemistry courses numbered 2200 and above including Chemistry 2140-49 (4 hours) and at least one of the following sequences: Chemistry 3211-3212-3231, 3219-3229 (or 3529-3529-3539) (12 hours) or Chemistry 3410-3420-3430 (9 hours) or Chemistry 4910-4920-4930 (9 hours).

Placement in Freshman Sequences: The sequence which meets all requirements of a year-long general chemistry and is a prerequisite for upper division courses is 1110-20-30. The 1500 and 1600 series have more limited applications. The 1500 series emphasizes organic and biochemistry and may be used as a pre-requisite for 2310 and 3810. The 1600 series is for non-science majors and does not provide an adequate background for any additional courses in chemistry.

It is impossible to move from one sequence to another with permission for substitution is obtained in advance. For example, a student who finds a need to complete the 1110 series after having completed Institute 1510 for 1110 with the approval of the chemistry department and may then take 1120 followed by 1130. However, no single quarter of the 1500 or 1600 sequences may be substituted for the entire department. Credit may be received for only one of the courses 1110, 1510, or 1610.

In any chemistry course above the freshman level, which has Chemistry 1110- 20-30 as a prerequisite, 1510-20-30 may be used as a prerequisite for admission to the chemistry department.

Chemistry 1118-28-38 is an honors course designed for the superior student who has already made considerable progress in science. Selection is based on placement test scores and the high school chemistry grade. A grade of A or B in 1128 also gives credit for 1138 with the same grade. A student receiving a grade below B in 1118 will complete the year's work by taking 1120-30. A student receiving a grade of C or D in 1128 must take 1130 to get the full 12 hours credit.

Beginning students who have high school chemistry and who have had additional experience (e.g., summer institute study, special research projects, home laboratory) are invited to apply during the summer to the Department for permission to take a proficiency examination in one or more quarters of freshman chemistry. If a satisfactory grade is made on the examination, credit will be allowed for the quarter (or course) for which the exam was taken.

1110-20-30 General Chemistry (4, 4, 4) General course of theoretical and descriptive chemistry. 1110—Modern atomic theory, chemical bonding, stoichiometry, and quantitative gas laws. 1120—Quantitative aspects of solution chemistry, kinetics, chemical equilibria, and thermodynamics. 1130—Descriptive chemistry of nonmetallic and metallic elements, electrochemistry and introduction to organic and biochemistry. Must be taken in sequence. 3 hrs and 1 lab.

1188 Honors: General Chemistry 4 (See explanation above.) 3 hrs and 1 lab.

1128-38 Honors: General Chemistry 4, 4 (See explanation above.) 3 hrs and 1 lab.

1410 Chemistry for Nurses (4) Inorganic, organic, and biochemistry. 3 hrs and 1 lab.

1420 Chemistry for Nurses (4) Aromatic compounds and biological chemistry. Prereq: 1410, 3 hrs and 1 lab.

1510-20-30 General Chemistry (4, 4, 4) Introductory course covering all major aspects of chemical systems. 1510—Bonding and molecular structure, gas laws, liquid and solid state, solutions, colloids. 1520—Acids and bases, chemical equilibrium, kinetics and equilibria. Introduction to organic chemistry, alkenes, unsaturated and aromatic hydrocarbons. 1530—Carbon and reactions of various organic functional groups. Introductory biochemistry. Carbohydrates, acids and proteins, carbohydrates, lipids, nucleic acids. Must be taken in sequence. 3 hrs and 1 lab.

1610-20 Chemistry and Society (4, 4) Chemistry for nonscience majors emphasizing role of chemistry in dealing with current social concerns. 1610-Base principles including particle nature of substances, their structure, and chemical changes. 1620-Import and utilization of chemical principles in modern society with selected topics in areas of energy, environment, medicine and consumer products. Must be taken in sequence.


2149 Analytical Chemistry (1) Experiments on topics discussed in 2140. Prereq or coreq: 2140. 1 lab.

2230 Elements of Organic Chemistry (4) Brief treatment of organic chemistry with emphasis on compounds of carbon and their reactions. Prereq: one year of general chemistry. Not open to chemistry majors or minors. Credit may not be received for both Chemistry 2230 and 3211, toward graduation or otherwise.

3000 Searching the Chemical Literature (2) Use of abstract journals, reference, compendia, books, chemical journals and other sources of chemical information. 2 hrs. Open only to upper division chemistry majors.

3211-21-31 Organic Chemistry (3, 3, 3) Compounds of carbon and their reactions, reaction mechanisms, spectroscopy and other physical properties. Must be taken in sequence. Prereq: 1110-20-30. Corresponding laboratory (3219-29-39) is coreq for students not having credit for the laboratory.

3219-29-39 Organic Chemistry Laboratory (1, 1, 1) Experiments on topics discussed in 3211-21-31. Corresponding lecture (3211-21-31) is coreq for students not having credit for the lecture.


3429-39 Physical Chemistry Laboratory (1, 1) Gases, liquids, chemical equilibria, solutions, phase equilibria, reaction kinetics and electrochemistry. The corresponding courses (3420 and 3430) are corequisites. 1 lab.

3511-21-31 Principles of Organic Chemistry (3, 3, 3) Structure and reactivity of aliphatic and aromatic compounds emphasizing reactions of synthetic utility. Use of spectroscopic and physical techniques to elucidate reaction mechanisms. Recommended for chemistry majors and students planning careers in physical or biological sciences. Credit will not be given for both courses. Must be taken in sequence. Corresponding laboratory: 3219-29-39 or 3219, 3529-39 is a corequisite, latter is recommended.

3529-39 Organic Chemistry Laboratory (1, 1) Experiments on topics discussed in 3511-21-31. Corresponding lecture to 3229-39 except designed for students who have
need for operating knowledge of various spectroscopic and chromatographic techniques. Corequisite: 3521-31 or 3221-31 is a corequisite for students not having credit for the lecture.

3810 Radioactivity and Its Applications (3)
Radioactive materials in tracer and therapeutic applications. Radioactive decay, detection apparatus and techniques, tracer procedures and safety precautions in agriculture, biology, medicine, nutrition, etc. Not for credit by chemistry or physics majors or minors. Prereq: Math 1550 or equivalent, 1 yr of General Chemistry.


4119 Physical Chemistry Laboratory (1) Solutions, phase equilibria, reaction kinetics and spectroscopy. The corresponding course 4110 is corequisite.

4160-70 Intermediate Physical Chemistry (3, 3)
(Designed for entering graduate students who have had one year of physical chemistry.) 4160—The three laws of thermodynamics, phase equilibria and solutions, and chemical equilibria. 4170—Gases and kinetic theory, chemical kinetics, molecular spectroscopy, and introduction to chemical statistics.

4210 Advanced Analytical Chemistry (3) Chemical separations including chromatography, ion exchange and solvent extraction; spectrophotometric techniques. Prereq: 4240-49.

4219 Advanced Analytical Chemistry Laboratory (1) Experiments on topics discussed in 4210. Coreq: 4220.

4220 Advanced Analytical Chemistry (3) Electroanalytical methods of analysis including Potentiometry, coulometry, polarography, and voltammetry; magnetic resonance methods; mass spectrometry; x-ray absorption and fluorescence techniques. Prereq: 2140-49; 3420 or 4240 recommended.

4229 Advanced Analytical Chemistry Laboratory (1) Experiments on topics discussed in 4220. Coreq: 4220.

4420 Physical Inorganic Chemistry (3) Theoretical concepts leading to an understanding of inorganic chemistry: quantum theory of the atom, principles of molecular structure, and elementary nuclear chemistry. Prereq: 3410-20-39; 4110.

4430 Intermediate Inorganic Chemistry (3) Application of theoretical concepts to inorganic elements, their chemical states, and their reactions. Prereq: 4420.

4510 Organic Qualitative Analysis (3) Identification of organic compounds and mixtures. Prereq: 3211-21-31, 3219-29-39 or 3219, 3529-39. 3 labs. (Not open to students who have completed 4610.)


4610-20 Advanced Chemical Experimentation (2, 2)
Laboratory course in application of modern experimental techniques to solution of chemical problems. Synthesis and characterization of organic and inorganic compounds with emphasis on independent study using advanced techniques. Prereq: 3231-39 or 3231-35, 3430-39, 4220. Students who receive credit for 4610 may not also receive credit for 4510.

4640 Electronics for Chemists (4) Electronics in design and construction of chemical instrumentation. 2 hrs and 2 labs. Prereq: Physics 2310.

4710-20-30 Research in Chemistry (2, 2, 2) Open to junior majors with permission of department head. Written report must be submitted to research director at termination of project.

4910-20-30 Biophysical Chemistry (3, 3, 3) Physicochemical principles with applications to biological systems. Must be taken in sequence. Not open to students having 3410-20-30. 4910—Gas laws; first, second and third laws of thermodynamics; equilibria. 4920—Solution chemistry; electrochemistry; kinetics; nuclear chemistry. 4930—Elementary quantum chemistry; optical and magnetic spectroscopy; light scattering; macromolecular properties. Prereq: 1110-20-30; Math 1540-50 or equivalent.

4929-39 Biophysical Chemistry Laboratory (1, 1) Experiments on topics discussed in 4910-20-30. Must be taken in sequence. Not open to students taking 3410-20-30-39 sequences. 4929 is coreq or prereq for 4929. 4930 is coreq or prereq for 4939. 1 lab.

GRADUATE
Students majoring in chemistry for the M.S. or Ph.D. degree are required to present a prerequisite one year each of general, analytical, organic, and physical chemistry with a satisfactory record. Students lacking any of these prerequisites may be admitted with appropriate deficiencies which must be removed without graduate credit.

For students minoring in chemistry, the prerequisite is two years of chemistry including quantitative analysis.

The Master's Program
Master's degree requirements are found in the Graduate School Catalog.

The Doctoral Program
Doctor's degree requirements are found in the Graduate School Catalog. The department offers specialization in eight areas for the Ph.D. degree: analytical, environmental, inorganic, organic, physical, theoretical, chemical physics and polymer science.

5000 Thesis
5110-20-30-35 Advanced Organic Chemistry (3, 3, 3, 3)
5129 Advanced Organic Chemistry Laboratory (3)
5140 Introductory Polymer Chemistry (3)
5150 Kinetics of Polymerization (3)
5160 Organic Chemistry of Polymers (3)
5170 Physical Chemistry of Polymers (3)
5240 Electronics for Chemistry (4)
5250-60-70 Advanced Analytical Chemistry (3, 3, 3)
5250-60-70 Advanced Analytical Chemistry Laboratory (1, 1, 1)
5260-90-90 Clinical Chemistry (3, 3, 2)
5290 Clinical Chemistry Laboratory (1)
5310-20-30 Research in Chemistry (3, 3, 3)
5340-50 Quantum Chemistry (3, 3)
5410-20-30 Advanced Physical Chemistry (3, 3, 3)
5440 Experimental Methods of Infrared and Raman Spectroscopy (3)
5450 Statistical Thermodynamics (3)
5460 Radiation Chemistry (3)
5511 Survey of Inorganic Chemistry (3)
5521 Survey of Analytical Chemistry (3)
5531 Survey of Organic Chemistry (3)
5710-20-30 Theoretical Inorganic Chemistry, (3, 3, 3)
5810 Nuclear Chemistry (3)

5911-21-31 Chemistry Seminar (1, 1, 1)
6000 Doctoral Research and Dissertation
6111 Selected Topics in Organic Chemistry (3)
6130 Natural Product Chemistry (3)
6150 Theoretical Organic Chemistry (3)
6160 Physical Organic Chemistry (3)
6165 Orbital Symmetry Control (3)
6175 Organic Photochemistry (3)
6190 Organometallic Chemistry (3)
6210 Advanced Analytical Spectroscopy (3)
6211 Selected Topics in Analytical Chemistry (3)
6311 Selected Topics in Polymer Chemistry (3)
6320 Natural Polymers (3)
6411 Selected Topics in Physical and Theoretical Chemistry (3)
6420 Nuclear Magnetic Resonance (3)
6430 Photochemistry and Radiation Chemistry (3)
6450 Electrochemistry (3)
6475 Electronic Structure of Radicals (3)
6480 Statistical Thermodynamics (3)
6495 Advanced Chemical Kinetics (3)
6510 Thermodynamics of Solutions (3)
6520 Magnetic Resonance (3)
6711 Selected Topics In Inorganic Chemistry (3)
6730 Topics In Quantum Chemistry (3)
6750 Molten Salt Chemistry (3)
6810 Vibrational Problems in Molecular Spectra (3)
6820 Molecular Vibration-Rotation Theory (3)
6811 Selected Topics In Nuclear Chemistry (3)

Chinese
See Cultural Studies (Asian Studies).

Classics (257)
Professors: H.C. Rupelhage (Head), Ph.D. Ohio State; A. Rapp (Emeritus), Ph.D. Illinois.
Associate Professors: M.L. Henbest, M.A. Arkansas; J.E. Shelton, Ph.D. Vanderbilt.
Assistant Professors: G.C. Gesell, Ph.D. North Carolina (Chapel Hill); B.J. Levy, Ph.D. Texas; P.J. Nassen, Ph.D. Ohio State.

Greek and Roman Civilization
See Cultural Studies.

Greek
UNDERGRADUATE
A major in Greek consists of 39 hours of language courses numbered above 2000 but including Classics 4220. Nine hours from the following general courses may be substituted for language courses at the discretion of the department: Classics 3210-20, 3310-20, 4010. 4101 may be taken for a maximum of 6 hours. The Greek minor consists of 24 hours in
language courses numbered above 2000 including Classics 4220. Six hours from the following general courses may be substituted: Classics 3210-20, 3310, 3320.

1610-20 Beginning Greek (4, 4) Must be taken in sequence.

2610 Xenophon (4)
2620 Homer: Odyssey (4)
2630 Homer: Iliad (4)
2640 Greek New Testament (4) Prereq: 2610 or permission of instructor.
3010 Plato (3)
3020 Herodotus (3)
3030 Euripides (2)
4020 Aeschylus; Sophocles (3)
4030 Lysias (3)
4040 Aristophanes (3)
4050-60-70 Directed Readings in Greek (3, 3, 3)

GRADUATE

Graduate courses in Classics include wider reading of Greek or Latin authors in a selected field, more detailed study of one of the great departments of classical literature, and development of background and appreciation of Greek or Roman life and literature.

5000 Thesis
5110-20-30 Greek Epic, Homer (3, 3, 3)
5210-20-30 Greek Drama (3, 3, 3)

Latin

UNDERGRADUATE

A major in Latin consists of 39 hours in language courses numbered above 2000, but including Classics 4220. Nine hours from the following general courses may be substituted for language courses at the discretion of the department: Classics 3210-20-30, 3310, 3320, 3330, 4101 may be taken for a maximum of 6 hours. Greek language courses numbered above 2000 may be substituted for a maximum of 9 hours of Latin courses with permission of department.

The Latin minor consists of 24 hours in language courses numbered above 2000 including Classics 4220. Six hours from the following general courses may be substituted: Classics 3210-20-30, 3310, 3320, 3330.

Placement Examination: Students who transfer to The University of Tennessee from other colleges and students who enter with high school units in Latin should register for the course in which they would normally be placed on the basis of such credits. During the first week of the quarter a placement test will be given, and students will be advised if a change in their registration is indicated by the results.

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

College of Liberal Arts

Certification for Teaching Latin in Tennessee. Consult Certification Clerk, Room 212, Claxton Education Building.

1510-20 Beginning Latin (4, 4) Must be taken in sequence.

2511-21 Intermediate Latin (4, 4) 2511—Readings from the age of Cicero, 2521—Virgil's Aeneid, Open to those who have had at least two years of high school Latin, or equivalent.

3140 Ovid (3) Prereq: 3 or 4 years of high school Latin or 2521.
3150 Plautus and Terence (3) Prereq: 3 or 4 years of high school Latin or 2521.
3160 Catullus (2) Prereq: 3 or 4 years of high school Latin or 2521.
3440 Livy (3)
3450 Pliny and Martial (3)
3460 Elegiac Poets (3)
4120 Horace, Satires and Epistles (3)
4140 Cicero and Techniques of Latin Prose Composition (4) Recommended for Latin majors and minors, especially those intending to teach or pursue graduate work. Works of Cicero studied as models for prose composition.
4310 Selected Readings from Latin Literature (3)
4320-30 Selected Readings from Latin Literature (3, 3) May be repeated for credit.
4340 Horace, Odes (3)
4350 Tacitus (3)
4360 Lucretius (3)
4370 Readings in Medieval Latin (3)

GRADUATE

5000 Thesis
5310 Seminar in Caesar (3)
5410-20-30 The Latin Epic. Lucretius, Virgil, Lucan (3, 3, 3)
5510-20-30 Roman Comedy. Plautus, Terence (3, 3, 3)

GENERAL COURSES

2710 Greek Etymology (4) Origin and derivation of words. Greek etymology most often found in English language with special attention to words in scientific and technical vocabularies.
2720 Latin Etymology (4) Origin and derivation of words. Latin stems most commonly found in English language with special attention to words in scientific and technical vocabularies.
2810 Greek Life (4) Manners and customs, social and economic aspects of classical civilization; family, politics, laws, finance, commerce.
2820 Roman Life (4) Description same as for Greek Life 2420.
2910-20 Survey of Greek Literature in English Translation (4, 4) 2910—Homer, lyric poetry; Herodotus. 2920—Thucydides, Plato, literature of the age of Alexander.
3210 Early Greek Mythology (3) Comprehensive study of Greek myths through readings, lectures, and discussion with emphasis on significance for Greek thought and religion. Slides and tapes illustrate influence of Greek myths on art, music, and literature of ancient Greek and later cultures. (Same as Religious Studies 3210.)
3220 Greek Mythology in the Classical Period (3) A study of use of myth in literature, history, religion, philosophy, and art of Classical Age of Greece, and change of attitude toward myth from earlier periods.

Familiarity with basic Greek myths is assumed. Reading, lectures, slides, and discussion. (Same as Religious Studies 3220.)

3230 Roman Mythology (3) Study of myths created by Romans, as well as those the Romans borrowed from Greeks, with reference to Roman attitude toward history, religion, and society. Readings, lectures, slides, and discussion. (Same as Religious Studies 3230.)

3310 Art and Archaeology of the Aegean Bronze Age and Early Greece (3) Troy, the Cyclades Islands, Greek mainland, and Crete. Emphasis on palaces of Crete and Mycenae, Tiryns, and Mylos, their fall, the following Dark Age, and rebirth of Greek civilization. Illustrated lectures.

3320 Art and Archaeology of Archaic and Classical Greece (3) Survey of development of Greek architecture, sculpture, and painting from 650 B.C. to death of Alexander. Illustrated lectures.

3330 Art and Archaeology of Hellenistic Greece and Rome (3) Hellenistic Greek, Etruscan, and Roman sculpture, painting, and architecture with attention to city planning and illustrated lectures.

3340 Cities of the Greek and Roman World (4) Archaeological survey of Greek and Roman cities from 3000 B.C. to 500 A.D. with emphasis on development of city planning and quality of life. Such cities as Mycenae, Athens, Priene, Alexandria, Rome, and Epeiros Magna will be studied.

3350 Shrines and Sanctuaries of the Greek and Roman World (4) Survey of major shrines and sanctuaries of Greek and Roman world with emphasis on archaeological remains. Such sites as Olympia, Epidaurus, Paestum, Cumae, Praeneus, and Baalbek will be considered. Readings in selected classical authors will add to understanding of place of great shrines and sanctuaries in Greek and Roman life.

4010 Greek Drama in English Translation (3) Survey of dramatic masterpieces of Greek literature.

4101 Foreign Study (1-16) See page 177.

4210 Teaching of Latin (3) Carries no language credit. For description see Education, Curriculum and Instruction 3656. (Same as Educ. C&I 3656.)

4220 Seminar in Classical Studies (3) Special problems in literatures and other arts of Greece and Rome. For graduate students and advanced undergraduates. May be repeated for credit with permission of department.

4230 Classical Mythology and Its Uses (3) Intensive review and survey of Greek and Roman mythology for graduate students and advanced undergraduates. Emphasis on uses of classical mythology in literature, music, and plastic arts, especially of modern times.

4510 Selected Readings in Latin Literature in Translation (3) Content varies; may be repeated for credit with permission of department.

GRADUATE

5620 Problems in Old World Archaeology (3)

Comparative Literature

See Cultural Studies.

Computer Science (266)


Associate Professors: R.M. Aiken, Ph.D. Northwestern; C.E. Hughes, Ph.D. Pennsylvania State; S.M. Selkow, Ph.D. Pennsylvania.
3410 Computer Programming-COBOL (3) Computer programming in business oriented language COBOL. Prereq: 1410 or 1510 or 3150 or permission of instructor.

3910 Commercial Computer Concepts and Control (3) Elements, operations, and controls of computers in a business environment. Topics include input, storage, data manipulation, output, flowcharting, and error control. Prereq: 3410 and Accounting 2210.

4310 Computation in Statistical Analysis (3) Use of digital computer in standard statistical analyses, such as frequency tabulations, percentiles and data reduction, correlation and regression, analyses of variance. Elementary programming in a problem-oriented scientific language, e.g., FORTRAN. Prereq: Statistics 2100 or equivalent. 3 lectures. Not for credit for computer science majors.

4320 File Maintenance and Data Processing (3) Applied computer programming. Error analysis of FORTRAN programs, overlay structures, maintenance of tapes and direct access information storage files, use of utility programs, sort and merge. (Not for credit for computer science major.) Prereq: one course in FORTRAN programming.

4330 Special Projects in Applied Programming (3) Applied programming in area of student's primary interest, using the digital computer. To be directed by computer science faculty, perhaps jointly with student's faculty advisor. Oral and written reports. Prereq: programming experience, 1-3 hours. May be repeated for a maximum of nine hours credit.

Intermediate and Advanced Courses

3510 Computer Organization and Programming I (3) Problem formulation and advanced programming in FORTRAN: operation and control of digital computers. Prereq: 1510, 2510, or 3150 or permission of instructor.


3715 Discrete Structures (3) Introduction to discrete structures useful in computer science. Sets, set logic, relations, functions, proof techniques, graph theory, lattices, Boolean algebras. Prereq: 1510 and Math 2860 or equivalents. (Same as Mathematics 3715.)

4035-45 Introduction to Numerical Linear Algebra (3) 3 Floating-point numbers and arithmetic on modern digital computers; numerical algorithms for solving systems of linear equations; linear least-squares methods and eigenvalue computations. Prereq: 3150 or 3155. (Same as Math 4035-45.)

4225-35 Introduction to Numerical Analysis (3, 3) (Same as Math 4225-35.)

4510 Data Structures and Nonparametric Programming (3) Data structures and algorithms for design of computer systems. Arrays and orthogonal designs; stacks, queues, rings, doubly-linked lists, trees, dynamic storage allocation, organization of files, program design, computer organization. Prereq: 3520 or permission of instructor.


4620 Operating Systems—Case Studies (3) Alternatives in operating system design, dynamic relocation, paging, segmentation, time sharing, scheduling, control, concurrency, real time systems. Examples from different operating systems analyzed as appropriate. Prereq: 4510 or equivalent or permission of instructor.


4820 Introduction to Pattern Recognition (3) (Same as Elec. Eng. 4820.)

4830 Digital Image Processing (3) (Same as Elec. Eng. 4830.)

4850 Small Computer Systems (3) (Same as Elec. Eng. 4850.)

4910 Analysis and Management of Computer Installations (3) Analysis and design of computer systems; implementation, justification, personnel in systems; perspective on systems. Prereq: 3520 or equivalent.

4980-90 Special Studies in Computer Science (1-4) Credit determined at time of registration. May be repeated for credit to maximum of 9 hours with permission of department. Prereq: recommendation of computer science staff.

GRADUATE

5000 Thesis

5002 Non-Thesis Graduation Completion (3)

5010 Computer Assisted Instruction (3)

5050 Computer Modeling and Simulation of Physical Systems (3)

5210 Artificial Intelligence (3)

5250 Medical Computing (3)

5430 Compiler Design (3)

5455 Finite Difference Methods for Partial Differential Equations (3)

5465 Mathematical Aspects of the Finite Element Method (3)

5655-75 Numerical Mathematics (3, 3, 3)

5670-80 Advanced Operating Systems (3, 3)

5710 Finite Automata Theory (3)

5730 Computability and Computational Complexity (3)

5750 Theory of Formal Languages (3)

5810 Information Organization and Retrieval (3)

5840-50 Pattern Recognition (3, 3)

5910-20-30 Special Topics in Computer Science (1-3, 1-3, 1-3)

5940-50 Advanced Small Computer Systems (3,3)

5970-90 Seminar (1-3, 1-3, 1-3)

Cultural Studies

Director: Dr. Charles Jackson

Basic Staff: S.R. Blanchar, Ph.D. History; J.S. Elliott, Ph.D. Russian; D.M. Fiske, Ph.D. Russian; C.O. Jackson, Ph.D. History; S.B. Kurth, Ph.D. Sociology; H.E. Lawler, Ph.D. Spanish; D.H. Littlejohn, B.A. Special Programs; C.J. Melzer, Ph.D. German; M.E. Peek, M.A. History; M.P. Rice, Ph.D. Russian; H.C. Rutledge, Ph.D. Classics; P.B. Scott, Ph.D. Home Economics; Z. Shirakawa, M.A. Special Programs; S.E. Young, Ph.D. Music.

*On leave.
The ideal curriculum encourages not only proficiency in a given field of knowledge but also the comprehension of similarity and complementarity between areas of intellectual endeavor. One answer to the need for fusion and integration of knowledge is the interdisciplinary program. The College has joined the resources of several departments to offer a cultural studies major with concentrations in American studies, Asian studies, Black studies, comparative literature, Latin American studies, linguistics, Medieval studies, and Russian and East European Studies. Minors are provided in Asian studies, Black studies, comparative literature, Latin American studies, linguistics, Medieval studies, and women’s studies.

American Studies (099)

History 2510-20 (or equivalent honors courses) are prerequisite to a concentration in American studies which consists of 36 quarter hours: English 3010-20-30, American Studies 3010 and 4010, and 21 hours of upper-division electives dealing with the American experience. Nine hours of the elective group must be from one of the following disciplines: anthropology, economics, political science, or sociology. A list of acceptable elective courses is published annually by the American Studies Committee.

Further information consult the chairman of the American Studies Committee, Dr. Charles Jackson.

3010 Introduction to American Culture (3) Explores dynamics and nature of contemporary American culture.

4010 Topics in American Culture (3) Content varies. May be repeated once.

Asian Studies (145)

This concentration consists of 36 quarter-hours, including Asian Studies 2510-20 and at least eight hours from Asian Studies 3310-20-30-40. In addition to courses with Asian studies numbers, courses from at least two other departments must be selected. The Asian studies minor consists of 24 quarter-hours, including Asian Studies 2510-20 and at least 12 hours from Asian Studies 3310-20-30-40. Students completing the minor successfully will upon application to the program chairperson be awarded the Asian studies certificate in acknowledgement of the work. In addition to courses with Asian studies numbers, courses from at least two other departments must be selected from the list below.

For further information consult the chairman of the Asian Studies Committee, Dr. Stephen Young.

Anthropology: 3510 Peoples and Cultures of Mainland Asia (3) 4000 Peoples of China: Chinese Society before 1839 (3) 4510 Peoples of China II: Chinese Society after 1839 (3) 4570 Peoples of Southeast Asia (3) 4590 Peoples of Japan (3)

Art: 3775-76-77 History of Oriental Art (4, 4, 4) 4875-76-77 Studies in Oriental Art History (4, 4, 4)

Geography: 3870 Geography of Asia (4)

History: 3810-20-30 History of East Asia (3, 3, 3)

3780-90 History of the Middle East I, II (3, 3)
3795 Contemporary Middle East (4)
4811-21 History of Japan I, II (4, 4)
4870 Cultural History of China (3)
4880 History of Modern China (3)
4890 History of Contemporary China (3)

Music: 4260 Introduction to Ethnomusicology (3)

Political Science: 3621-22 Politics of Asian States (4, 4)
3641-42 Government and Politics of Middle East and North Africa (4, 4)

Philosophy-Religious Studies: 3630 World Religions (4)
3650 Philosophy and Religion in India (4)
3660 Buddhist Philosophy and Religion (4)
3670 Religion and Philosophy in China and Japan (4)

Religious Studies: 3680 Islamic Studies (4)
3760 Eastern Religions and Western Thought (3)
3770 Zen Buddhism (3)
4670 Topics in Eastern Religions (4)
4960 Tradition, Change and Modernity in Asia (4)

Romance Languages

Arabic: 1510-20 Spoken Arabic (4, 4)
2510-20 Intermediate Modern Standard (4, 4)
3510-20 Intermediate Modern Standard (4, 4)
3610 Islamic Literature in English Translation (4)

2510-20 Asian Civilization (4, 4) Introduction to Asian civilization by comparative study of development of religion, social institutions, and high culture in India, China, Japan and the Islamic world. 2531-32 Elementary Chinese (4, 4) Must be taken in sequence.

2631-32 Elementary Japanese (4, 4) Must be taken in sequence.

3000 Selected Topics in Asian Studies (4)

3310-20-30-40 Asian Cultures (4, 4, 4) Readings in translation from classical and modern literature together with study of religion/ philosophy, society, art and music. 3310-India; 3320-China; 3330-Japan; 3340-Islam.

3531-32 Intermediate Chinese (4, 4) Prereq: 1521-22 or equivalent or permission of instructor; must be taken in sequence.

3631-32 Intermediate Japanese (4, 4) Prereq: 2621-22 or equivalent or permission of instructor. Must be taken in sequence.


4010-20-30 Readings in Asian Literature (4, 4, 4) Prereq: Mastery of intermediate level of Japanese, Chinese, or Sanskrit and permission of instructor.

4012 Selected Topics in Asian Studies (4) Content varies. May be repeated. Maximum 12 hours credit.

Black Studies (195)

The concentration in Black studies and the minor in Black studies offer in-class, independent, and off-campus study to foster knowledge of the Black experience through a traditional academic approach as well as experiential learning. Black Studies 2010-20 are prerequisites to the concentration which consists of 36 hours from the Black studies curriculum. A minimum of 24 hours must be in upper division credit. Every student’s program must include some individualized work under Black Studies 4102, 4103, and 4310, the nature of which should be negotiated with the program director. A maximum of 8 hours in 4102 and 4103 combined can be applied to a major concentration, and a maximum of 4 hours in 4102 combined can be applied to a minor. In addition, courses from at least two other departments must be selected.

For further information consult the coordinator of the Black Studies Committee, Mr. Marvin Peek.

2010-20 Introduction to Black Studies (4, 4)
3140-50-60 Directed Readings in Black Studies (1, 1, 1) Designed for students who are interested in doing intensive reading in some area of Black studies which is defined by the student and the instructor. Prereq: 2010 (or 2020) and permission of instructor.

3330 Prejudice and Racism in the United States (4) (Same as Sociology 3330.)

3340 Sociology of Poverty and Inequality (4) (Same as Sociology 3340.)

3490 African Religions (4) (Same as Religious Studies and Anthropology 3490.)

3550 Religion and Racism in America (4) (Same as Religious Studies 3550.)

3660 Black Religion in America (4) (Same as Religious Studies 3660.)

3630-40 The Education of Black People (4, 4) Sequence will trace and analyze educational systems established for and by Blacks. Special emphasis will be given to colonial experience and the Washington-DuBois controversy in 3630; 3640 will deal with present urban educational problems of Blacks. Recent proposed remedies and solutions as integration, compensatory programs, decentralization, voucher systems; Black Studies and Freedom Schools will be discussed. 2010-20, History 1950-60 recommended. Prereq: consent of instructor.

4101 Foreign Study (1-16) See page 177.

4102 Off-Campus Study (4-8) See page 177.

4103 Independent Study (1-8) See page 177.

4200 Senior Seminar on Pan-Africanism (4) Explores concepts and philosophies of Pan-Africanism and implication of this ideology for various societal institutions.

4310 Research in Black Studies (4) Deals with Black experience and research process.

4500 Current Issues and Topics in Black Studies (3-4) Problems, topics and issues in area of Black studies. Content and credit determined by instructor. May be repeated. Maximum credit 12 hours.

4810 Afro-American Families (3) (Same as Child and Family Studies 4810.)

4830 Black Women in American Society (4) Historical and contemporary socio eco-political factors in American society as they relate to the Black woman. History 1950-60 recommended. Prereq: consent of instructor.

4880 Afro-American Psychology (3) (Same as Psychology 4880.)

Anthropology 3530 Peoples and Cultures of Africa (3)

Anthropology 3930 Biology of the Races of Man (3)

Art 2725 Black Art (4)

CFS 4310 The Afro-American Family (3)

English 2540 The Literature of Black America (4)

English 4610-20-30 Black Literature (3, 3, 3)

Geography 3830 Geography of Africa (3)
History 1950-60 African-American History: An Introduction (4, 4)
History 2950 Introduction to Afro-American History (3)
History 4950-60 The Negro In American History (3, 4)
Music 3350 Introduction to Afro-American Music (4)
Music 4270 Evolution of Jazz (3)
Political Science 3615-16 Black Africa: The Politics of Change and Stability (4, 4)
Political Science 3555 Minority Group Politics in the U.S. (4)
Psychology 4880 Afro-American Psychology (4)
Religious Studies 3550 Religion and Racism in America (4)
Religious Studies 3560 Black Religion in America (4)
Sociology 3330 Race, Class, and Power (4)
Sociology 3340 Sociology of Poverty and Inequality (4)
Sociology 4820 American Minority Ethnic Groups (4)
Speech 4582 Black Rhetoric (4)

Recommendations for the concentration and the minor:
1. Those with a concentration in Black studies are encouraged to take a second major, with which an individually designed program in Black studies can be correlated.
2. Students should seek academic advising from the Chairman of Black Studies for courses for the concentration or the minor which relate to career plans, preparation for graduate study, and relationship to the second major.
3. Those with a concentration and a minor are strongly encouraged to combine classroom and experiential learning through a careful selection of courses, e.g. Human Services 4400 and/or Black Studies 4102.

Comparative Literature (260)

A concentration in comparative literature consists of 36 hours including Comparative Literature 4010, 4012-22-32, 9 hours of literature in a foreign language in courses numbered 3000 and above, and one Classics course selected from Classics 4010, 4230, 4510. The remaining twelve hours should include literature courses, either in English or in a foreign language, numbered 3000 and above, from at least two of the following departments: English, Germanic and Slavic Languages, Religious Studies, Romance Languages (certain courses in Philosophy and Speech and Theatre may be substituted with the approval of the chairperson of the Comparative Literature Program). Students concentrating in comparative literature are strongly encouraged to acquire a working knowledge of a second foreign language, especially if they hope to pursue comparative literature on the graduate level.

A minor in comparative literature consists of 24 hours including Comparative Literature 4010, two courses from Comparative Literature 4012-22-32, 6 hours of literature in a foreign language in courses numbered 3000 and above, and 9 hours of literature courses numbered 3000 and above, either in English or in a foreign language, from at least two of the following departments: Classics (4010, 4230, 4510), English, Germanic and Slavic Languages, Religious Studies, and Romance Languages (certain courses in Philosophy or Speech and Theatre may be substituted with the approval of the chairperson of the Comparative Literature Program). Minors in comparative literature are strongly encouraged to continue their study of a foreign language beyond the minimum requirement.

For further information, consult the chairman of the Comparative Literature Committee, Dr. Harry C. Rutledge.

Greek and Roman Civilization

The Greek and Roman civilization concentration consists of Classics 2810 and 2820, and 30 hours from courses numbered above 3000. Students are encouraged to satisfy the Triad requirement in language, literature and the arts with either Greek or Latin in either Option 1 or Option 2. The following courses are required in this concentration: Classics 4010 and 4510; 9 hours from Classics 3210-20-30, 3310-20-30. For no more than 6 of these 15 hours students may substitute courses numbered above 3000 in Greek and Latin (exclusive of any courses taken to satisfy the Triad requirement). Upon consultation with the adviser the student may take the remaining 15 hours from the following courses: History 3750-60-70; Philosophy 3111-3121, 4410-20; Religious Studies 4310. Students could include Classics 4220 or History 4000 when the specific upper-level Latin or Greek can be included for a maximum of 6 hours with permission of the department.

For further information, consult the chairman of the program, Dr. Harry Rutledge.

Latin American Studies (600)

Concentration consists of 36 hours including Spanish 3710-20 or Portuguese 3510-20, History 3870-80-90, Political Science 3625-26, and Geography 3800 or 3790 and 7 hours of acceptable elective courses in any of the participating departments or in the Latin American studies sequence 2510-20 (4, 4) or Independent Research 4010. Two years of Spanish or Portuguese or a practical working knowledge acquired independently are a prerequisite.

Minor: Consists of 24 quarter hours selected from Geography 3800 or 3790, History 3870-80-90, Political Science 3625-26, and Spanish 3710-20 or Portuguese 3510-20, and the Latin American studies sequence 2510-20 or Independent Research 4010.

For further information, consult the chairman of the Latin American Studies Committee, Dr. H.E. Lewald.

2510-20 Introduction to Latin American Studies (4, 4) Introduction to societies of Latin America with special emphasis on dominant culture patterns, social changes, and impact of nationalism. 2510- Pre-Colonial and Colonial periods through the Independence era; 2420—Latter 19th Century and the Modern period.

4010 Independent Research in Latin American Studies (3-9) Directed research in any topic fully related to Latin American studies to be undertaken by a student off campus, normally in a Latin American country. The research must be approved and evaluated by the Latin American Studies Committee and directed by a faculty member involved in the study of the Latin American area. Credit to vary according to the scope and length of the project.

4970 Senior Seminar (3-4) Selected topics in Latin American studies. May be repeated with permission of instructor.

Linguistics (623)

This cultural studies concentration offers a broad exposure to the various fields of linguistics (including historical, descriptive and theoretical linguistics) along with an opportunity to study areas where linguistics
overlaps with other disciplines such as psycholinguistics, sociolinguistics, speech pathology and the like. It is designed to prepare a student for graduate work in linguistics or related areas, or to serve as a general survey of language and linguistics. It provides the additional possibility of emphasizing the teaching of English as a second language for the student interested in employment at the B.A. level. The requirements of this concentration are:

Corequisites
(a) A 3000 level sequence or its equivalent of a foreign language, normally French, Spanish, German, or Russian. (This can be accomplished by electing Option 1 of the Language, Literature and Arts section of the Triad requirements.) By special permission of the Linguistics Committee, certain language-related courses may be substituted for a 3000 level sequence of the foreign language.
(b) Two quarters of a non-Indo-European language to be selected from the following: Russian Studies 3141-51 (Hebrew); Arabic 2510-20; Asian Studies 3531-32 (Chinese); Asian Studies 2631-32 (Japanese).

Concentration
The concentration shall consist of 37 hours distributed as follows:
(a) 28 hours (a minimum of 18 in Linguistics) (see Audiology and Speech Pathology 3050; French, German, Russian, or Spanish 4250, 4260, 4270; English 3330, 4440, 4430; Speech 4811; Linguistics or related courses as recommended by the Linguistics Committee).
(b) 9 hours of the following, selected in consultation with the Linguistics Committee: Anthropology 3800; Audiology and Speech Pathology 3200; 4650, 5651, 5700; Educational Curriculum and Instruction 3562, 3563; Special Education and Rehabilitation 5220, 5310-20-30; English 3340, 4450, 4460, 5170-80, 5150; German 4310-20, 4810-20-30, 5710-20-30; Russian 4310-20-30; Philosophy 4630; Psychology 4650, 4660, 5360-70; French 4210-20-30, 5110-20-30; Spanish 4210-20-30, 5110-20-30.

Minor
A minor in linguistics shall consist of 24 credit hours composed of 8 from the above list selected in consultation with the Linguistics Committee, and 15 hours as follows: Audiology and Speech Pathology 3050; Linguistics 4020; English 4430, and French, German, Russian or Spanish 4250-60.

NOTE: In addition to the above listed courses for the concentration and the minor there are occasionally offerings in the Honors Series or in graduate seminars which may be substituted for certain requirements subject to written approval of the Linguistics Committee and the Office of the Dean. For further information consult the chairman of the program, Dr. James Elliott.

Medieval Studies (674)
A concentration in Medieval studies focuses upon culture and society from the collapse of the Roman Empire to the sixteenth century. Such a concentration offers the opportunity to deepen one's self-awareness and broaden one's view of the range of human possibilities by studying a very different and remote culture—its conditions of life, social and political institutions, values and ideals, and modes of perception and expression. A concentration in Medieval studies consists of Medieval Studies 2010 and 4010 and 28 hours of upper division courses concerned primarily with the medieval experience, divided among the following three categories: (1) history, philosophy, political science, and religious studies; (2) language and literature; (3) the arts—history of art, architecture, music, and speech and theatre. Courses should not be selected at random but should either form a related pattern (for example, courses in the literature and history of Medieval England or Italy, etc.) or should revolve around a particular discipline, or two closely related disciplines (for example, courses in the history of art and architecture). A minor in Medieval studies consists of Medieval Studies 2010 and 4010 and 16 additional hours distributed among the categories listed above for the major concentration. Each student's program, major or minor, must be approved in advance by the Medieval Studies Coordinating Committee, chairperson Sarah Blanshei, 1113 McClenney Tower.

It is strongly recommended that students selecting the Medieval studies concentration choose a foreign language option for the Triad requirement (options 1 or 2). Latin is the most appropriate language for students and is essential for those who plan to continue their studies in graduate school. In addition, students planning to go on to graduate school are strongly advised to supplement their Medieval studies concentration with extensive work in one of the traditional disciplines.

2010 Medieval Civilization (4)
Introduction to basic themes in medieval experience, approached from interdisciplinary points of view and including philosophy and religion, art and architecture, language and literature, social and political history.

4010 Seminar in Medieval Studies (4)
Interdisciplinary treatment of selected topics.

Upper division courses for the concentration in Medieval studies may be chosen from the list of courses below.

Category #1
History, Philosophy, Political Science and Religious Studies.

History 3061 History of Western Religious Thought (6) and Institutions (4)

History 3411 Renaissance (3)

History 3710 History of Germany (3)

History 3780 History of Middle East (3)

History 4011 European History Colloquium (3) (when subject is part of medieval culture and society)

History 4500 History of Medieval England (3)

History 4710-20-30 Medieval History (3, 3, 3)

Philosophy 4430 Medieval Philosophy (4)

Political Science 3802 Studies in Political Thought (4)

Religious Studies 3061 History of Western Religious Thought and Institutions (4)

Religious Studies 3411 Renaissance and Reformation (4)

Religious Studies 4610 Topics in Western Religious Thought and Institutions (4) (when subject is part of medieval culture and society)

Category # 2 Language and Literature

Classics 4310 Selected Reading from Latin Literature (3) (readings in Latin)

Comparative Literature 4012-22-32 Special Topics in Comparative Literature (3, 3, 3) (when subject is part of medieval culture and society)

Comparative Literature 4050-60-70 Dante and Medieval Culture (3, 3, 3)

English 4410 Introduction to Study of English Language (3) (no language requirement)

English 4420 History of English Language (3) (no prerequisites)

English 4910-20 Chaucer (3, 3) (readings in Middle English)

French 4350-60-70 Medieval French Literature (3, 3, 3) (readings in French)

French 4410 French Civilization (3) (readings in French)

French 4320 French literature in English Translation (3)

German 4310 History of German Language (3) (readings in German)

German 4320 German Literature in English Translation (3-4)

German 4320 Old Norse Literature in English Translation (3)

Italian 4050-60-70 Dante and Medieval Culture (3, 3, 3) (readings in English or Italian)

Italian 4330 History of Italian Language (3) (readings in Italian)

Italian 4410 Italian Drama in English Translation (3) (or in Italian)

Spanish 4050-60-70 Hispano-Arabic Language and Culture (3, 3, 3) (in English translation)

Category #3 The Arts

Architecture 4010 Special Problems in Architecture (1-8) (when subject is part of medieval culture and society, e.g. Gothic and Scholasticism)

Architecture 4130 Seminar in Medieval Architecture (4)

Art 3704 History of Medieval Art (4)

Art 3715 Early Italian Renaissance Art, 1300-1500 (4)

Art 3705 Northern European Painting, 1350-1600 (4)

Music 4200 Independent Study in Music History and Literature (1-3) (when subject is part of medieval culture and society)

Music 4280 The Mass to 1600 (3)

Music 4290 Gregorian Chant (3)

Theater 3252 History of the Theater (4)

Russian and East European Studies (887)

There are two approaches for the student to take in designing a program with a concentration in Russian and East European studies:
Track I is designed for students whose major interest is in a career in the academic world or in some branch of government service. Prerequisites to this track are Russian 2510-20 and 2640-50. The track consists of Economics 4000; Geography 3880; six hours from History 3470-80-90, 4470, 4480, and 4490; Political Science 4815 and four hours from Political Science 3631-32, 3715; Russian 3110-20-30 or 3810-20-30; and six hours from Russian 3210-20-21-30, 3240, 3250, 3260.

Track II is designed for students whose major interest is in a career in the world of international business and/or finance specifically oriented toward trade with the Soviet Union and Eastern Europe. Prerequisites to this track are Russian 2510-20 and 2640-50. The track consists of Economics 3210, 4000, and 4230; three hours from History 3470-80-90 and three hours from History 4480, 4490, or Geography 3880; Political Science 4815 and four hours from 3631-32, 3715; Russian 3110-20-30 or 3810-20-30; Marketing 4230; and Finance 4420.

For further information, consult the chairman of the Russian and East European Studies Committee, Dr. Martin Rice.

4010 Selected Topics in Russian and East European Studies (3) An interdisciplinary seminar on a selected topic using a comparative approach.

Women's Studies (994)
Minor: Consists of Women's Studies 2010-20 and 16 hours of appropriate courses numbered 3000 or above. Supporting courses are drawn from several departments and colleges on the UTK campus. A list of available courses will be published annually by the Women's Studies Committee. For further information consult the chairperson of Women's Studies, Dr. Suzanne Kurth.

2010-20 Women's Studies (4, 4) Explores basic knowledge and sources necessary to understand current and past societal experiences of women. 2010 utilizes perspective of humanities; 2020 employs that of social sciences.

Cultural Studies (270)
4000 Selected Interdisciplinary Cultural Topics (1-12) Acceptable for credit in any cultural studies concentration or minor except Black Studies. Registration by consent of Director of Cultural Studies and the respective chairperson. May be repeated for credit up to a maximum of 12 hours.

4101 Foreign Study (1-16) Acceptable for credit in any cultural studies concentration or minor except Black Studies. Registration by consent of Director of Cultural Studies and the respective chairperson. See page 177.

4102 Off-Campus Study (1-16) Acceptable for credit in any cultural studies concentration or minor except Black Studies. Registration by consent of Director of Cultural Studies and respective chairperson. See page 177.

4103 Independent Study (1-16) Acceptable for credit in any cultural studies concentration or minor except Black Studies. Registration by consent of Director of Cultural Studies and the respective chairperson. See page 177.

GRADUATE

5101 Foreign Study (1-12)
5102 Off-Campus Study (1-12)
5103 Independent Study (1-12)

Ecology (278)
J. Frank McCormick, Director.

Basic Faculty:

The Graduate Program in Ecology offers Master of Science and the Doctor of Philosophy degrees. This interdisciplinary program provides advanced courses in contemporary ecology for students from undergraduate programs in basic and applied biology, social sciences, mathematics and engineering. Research opportunities in both fundamental and applied ecology are intended to prepare students for academic careers as well as professional positions in industry or government. The Environmental Sciences Division of the Oak Ridge National Laboratory and the Tennessee Valley Authority provide advisers and research facilities. The Great Smoky Mountains, Cumberland Plateau, valley and ridge topography, TVA lakes and wild rivers provide locally a spectrum of natural habitats and consequent biological diversity which is truly unique. In addition, study research programs provide opportunities for student research elsewhere on this continent and abroad.

ADMISSION

Requirements for admission to this program are: (1) admission to the Graduate School of The University of Tennessee; (2) at least 12 quarter hours of college chemistry, 9 quarter hours of college mathematics, and 4 quarter hours of ecology at the upper division level. Candidates for the doctoral degree are expected to take the Graduate Record Examination.

Application forms for admission should be obtained from the Graduate School. Inquiries concerning the admission requirements should be addressed to the Director, Graduate Program in Ecology, 408 10th Street, University of Tennessee, Knoxville, Tennessee 37916.

COURSES ACCEPTABLE IN PROGRAM

Agricultural Biology
4010 Biology of Soil Microorganisms (4)
4510 Freshwater Fishery Biology (4)
4520 Management of Lakes and Ponds (4)
Botany
4310 Plant Ecology (4)
5340 Plant Geography (4)
5350 Analysis of Plant Communities (4)
5510-20-30 Systems Ecology (3, 3, 3)
5830 Field Methods in Plant Ecology (4)
Ecology
5000 Thesis
5100 Special Problems in Ecology (1-3)
5210-20-30 Principles of Ecology (2, 2, 2)
5310 Ecology for Planners and Engineers (3)
5320 Implementation of Environmental Policy (3)
6000 Doctoral Research and Dissertation
6100 Special Topics in Ecology (3)
6110 Seminar in Animal Behavior (2)
6120 Seminar in Aquatic Ecology (2)
English (339)

Professors: J.H. Fisher (Head), Ph.D., Pennsylvania; P.G. Adams, Ph.D., Texas; E.W. H raton, Ph.D., Illinois; K. Curry, Ph.D., Yale; R.B. Davis, Ph.D., Virginia; Y. Drake, Jr., Ph.D., Yale; J.A. Hansen, Ph.D., Yale; R.M. Kelly, Ph.D., Duke; K.L. Kinnerbocker (Emeritus), Ph.D., Yale; F.D. Miller, Ph.D., Virginia; R.E. Parker (Emeritus), Ph.D., California (Berkeley); J.E. Rees (Consultant); Ph.D., Kentucky; N.J. Sanders, Ph.D., Shakespeare Institute, Stratford-on-Avon; P.L. Soper, Ph.D., Cornell; H.E. Spivard, Ph.D., North Carolina; B.T. Stewart, Ph.D., Northwestern; W.E. Stockton (Emeritus), Ph.D., Harvard; A. Thieler (Emeritus), Ph.D., Harvard; T.V. Wheeler, Ph.D., North Carolina; N. Wright, Ph.D., Yale.

Associate Professors: L.S. Burghardt, Ph.D., Chicago; D.A. Carroll, Ph.D., North Carolina; J.E. Gill, Ph.D., North Carolina; A.J. Harris, Ed.D., Tennessee; B.J. Leggett, Ph.D., Florida; D.A. Myers, Ph.D., Florida; A.R. Penner, Ph.D., Colorado; F.M. Robinson, Ph.D., Texas; R.H. Walker, M.A., Texas.

Assistant Professors: J.M. Armstead, Ph.D., Duke; R.D. Cox, Ph.D., Mississippi; R.T. Crook, Ph.D., North Carolina; N.F. Goselee, Ph.D., Yale; N.M. Goselee, Ph.D., Yale; A.J. Hefferman, M.A., New York; M.A. Lofaro, Ph.D., Maryland; M.P. Richards, Ph.D., Wisconsin.


(a) 8-9 hours of 3000-level literature in a foreign language; or
(b) 8-9 hours of comparative literature or foreign literature in translation, at least half at the upper-division level.

(4) Corequisites: English majors must complete the second (2000-level) year of a foreign language.

Special Programs for the Major—The Departmental Committee on the Major is empowered to approve the individualized programs developed by students in consultation with their advisors. These programs need not necessarily fulfill all of the requirements listed above.

Units for Students who qualify, the English department offers a program of individualized study in the fourth year, culminating in a senior thesis and comprehensive examination. If these two are passed with grades of B or better, the student will be graduated with honors in English.

Classification of Upper-Division English Courses for the Major

A. To the Eighteenth Century: 3510, 3520, 3530, 3570, 3910-20, 4110-20, 4510, 4730, 4850, 4860, 4910-20.


C. Nineteenth and Twentieth Century: 3030, 3070, 3080, 3140, 3150, 3210-20, 3411-12-20-30, 3930, 3940, 4060, 4210-20-30, 4320-20-40, 4620, 4652, 4660, 4680.

D. Advanced Writing: 3450, 3460, 3470, 3830, 4960.

Minor: 24 hours, including at least 18 at the upper-division level.


Note: English 1510-20 and English 1518-28 are offered on a grade system of A, B, C, I, NC, W.

1211 Written and Oral English for Foreign Students (8) Rapid review of English grammar structures and pronunciation with intensive oral, aural, and written drill. Required during the first quarter of residence of all foreign students (graduates, undergraduates and transfer students) who are not exempt from it on the basis of the English Proficiency Examination required of every new foreign student.

1221 Written and Oral English for Foreign Students (6) Emphasis on the more advanced structures of English grammar and on paragraph writing. Required during the first quarter of residence of foreign students who on the English Proficiency Examination demonstrate need for work in English structure, but not at the intensive level of English 1211. Required also of foreign students who complete 1211.

1231 English Composition for Foreign Students (4) Composition and reading for students whose native language is not English. Emphasis on organization, paragraph, and theme structure, with attention to grammar and mechanics. Recommended based on English Proficiency Examination.

1Alumni Distinguished Service Professor. 2LuHodges Professor. 3Visiting.
1241 English Composition for Foreign Students (4)
Thematic writing problems encountered by foreign undergraduate and graduate students, with attention to writing based on reading, use of library, and documentation. Prereq: English 231 or recommendation based on English Proficiency Examination.

1251 English Pronunciation for Foreign Students (3)
Sounding and pronunciation patterns of American English and relation of spelling to sound. Designed to improve student's ability to speak and understand English. May be repeated. Maximum 6 hours credit. 5/N.C. (Same as Audiology and Speech Pathology 1281.)

1510-20 English Composition (4, 4) Writing, revising, conferencing; intensive reading for meaning and ways of expressing meaning. 1510—Writing with emphasis on organization, paragraph structure, style; attention to grammar and mechanics. 1520—Writing based on reading of literature; use of library and preparation of documented papers. Must be taken in sequence. A, B, C, I, NC, W grading.

1518-28 Honors: English Composition (4, 4) For students selected on basis of placement scores and high school record. Must be taken in sequence. A, B, C, I, NC, W grading.

1550 Research Writing (2) Use of library, forms of documentation, preparation of research paper. Prereq: English 15. 1551—Equivalent.

1510-20 English Majors (3) Introduction to methods and objectives of literary study; conferencing to plan student's program in major.

2510-20 English Masterpieces (4, 4) 2510—To the mid-eighteenth century. 2520—Since the mid-eighteenth century.

2530 American Masterpieces (4)

2540 The Literature of Black America (4) Poetry, fiction, drama. Emphasis on twentieth century.

2560-70-80 Literature of the Western World (4, 4, 4) 2560—Ancient and medieval. 2570—Renaissance through the eighteenth century. 2580—Nineteenth and twentieth centuries.

2590 Special Topics (4) Content varies. Each section will deal with specific topic as it is embodied in works from several historical periods and literary genres. Topics will be announced.

2640-50 English Culture (4, 4) 2640—Beginnings to the late eighteenth century. 2650—From the late eighteenth century to the present.

2680 Introduction to Drama (4) Study of selected plays to provide critical techniques necessary for understanding of drama.

2670 Introduction to Poetry (4) Study of selected poems to provide critical techniques necessary for reading of different types of poetry.

2860 Introduction to the Novel (4) Study of selected novels to provide critical techniques necessary for judging longer works of fiction.

3010-20-30 American Literature (3, 3, 3) 3010—John Smith through Poe. 3020—Emerson through Mark Twain. 3030—Henry James to present.

3070 Modern British Poetry (3) From Housman to Thomas and more-recent poets.

3080 Modern American Poetry (3) From Robinson to Stevens and more-recent poets.


3150 Melville (3)

3160 The Short Story (3) British and Continental European, with emphasis on twentieth century.

3170 The American Short Story (3) From nineteenth-century beginnings to present, emphasis on twentieth century.


3310 Women Writers in England and America (3) Emphasis upon the literary consciousness of women in the nineteenth and twentieth centuries.

3330 Introduction to Study of English Language (3)

3340 Varieties of English (3) Theories, methodologies, and findings of English and American dialectology.

3360-70 Old and Middle English Literature (3, 3) 3360-Old English heroic and elegiac poetry and major genres of early Middle English. 3370-Backgrounds and distinguishing characteristics of Middle English literature from 1300 to 1500.

3411-12-20-30 Modern Drama (3, 3, 3, 3) 3411—Continental 1930 to present. 3420—British. 3430—American. (Graduate credit normally limited to students in Speech and Theatre.)

3440 Literature and Film (3) Aesthetic relationships, emphasis upon media comparison.

3450 Writing of Fiction (3) Practice based upon analysis of modern fiction. (Sophomores admitted with instructor's written permission.)

3460 Advanced Fiction-Writing (3) Prereq: English 3450 and permission of instructor.

3470 Writing of Poetry (3) Practice based upon analysis of poetry.

3510 Sixteenth-Century Prose and Poetry (3) More and Wyatt to Spenser.

3520 Elizabethan Drama (3) Marlowe, Jonson, and others.

3530 Jacobean Drama (3) Beaumont and Fletcher to Massinger and Shirley.

3610 Restoration and Eighteenth-Century Poetry (3) Emphasis upon Dryden and Pope.

3620 Restoration and Eighteenth-Century Drama (3) Dryden through Sheridan.

3630 Restoration and Eighteenth-Century Prose (3) Defoe, Addison, Steele, Swift, and others.

3670 Age of Johnson (3)

3710 Literature of the English Bible (3) Types of Old Testament literature, excluding Wisdom literature. (Same as Religious Studies 3710.)

3711 Literature of the English Bible (3) Old Testament wisdom literature and types of New Testament literature. (Same as Religious Studies 3711.)

3840-50 Writing of Non-Fiction Prose (3, 3) Strategies of writing on personal and academic subjects. Discussion of student and professional writing. Conferences on individual student's goals and problems. Open to sophomores with instructor's permission. 3840-How to find, develop, and present an idea. 3850-How to convince a reader through logical and emotional appeals.

3860 Special Topics in Writing (3) Original writing integrated with reading, usually taught by professional author. Topics vary. May be repeated. Maximum 9 hours credit.

3910-20-30 Comparative Literature (3, 3, 3) 3910—Ancient. 3920—Medieval and Renaissance. 3930—Modern.

3940 Novel of the Contemporary Western World (3) Proust, Joyce, Mann, and others.

4010-20 Shakespeare (3, 3) 4010—Early plays, c. 1590-1601, including Henry IV, Twelfth Night, and Hamlet. 4020—Later plays, 1601-1613, with emphasis upon tragedies and dramatic romances.

4050-60-70 American Novel (3, 3, 3) 4050—From earliest sentimental novels through Brown, Cooper, and Kennedy, and major figures to 1875. 4060—Henry James and Mark Twain through early writings of Faulkner and Hemingway. 4070—Early thirties to present.

4011 Foreign Study (1-16) See page 177.

4012 Off-Campus Study (3-12) See page 177.

4013 Independent Study (3-12) See page 177.

4118-28-38 Honors: Senior (3, 3, 3) Admission by permission of department.

4140-50 Technical Writing (3, 3) 4140—For students planning careers in physical, life and health sciences, engineering, agriculture, and forestry. Writing of proposals, laboratory and progress reports, abstracts and journal articles. 4150—Writing of scientific feature articles in which data are marshalled and analyzed for human interest.

4210-20-30 Victorian Poetry (3, 3, 3) 4210—Tennyson and Pre-Raphaelites. 4220—Browning. 4230—Arnold, Clough, FitzGerald, and others.


4430 Modern English Grammar (3) New approaches with emphasis on the generative-transformational approach.

4440 Language in Society (3) Methodology and significant discoveries of sociolinguistics in America.

4450 Dialectology (3) Theories and methodologies of dialect research, fieldwork and analysis. Prereq: 3340 or permission of instructor.

4460 Special Topics in English Linguistics (3) May be repeated for credit with permission of department.

4471-81 English as a Second or Foreign Language (3, 3) 4471—Applied linguistics in teaching and learning of English as second or foreign language. Phonological and grammatical structure of present-day English. Analysis of differences (phonological, grammatical, and lexical) between English and another language. Prereq: second year of a foreign language. 4481—Materials and methods of language teaching, with emphasis on preparation of materials and structured teaching situations. Theory of testing language competence and performance, with emphasis on construction of tests. Team teaching with an experienced member of the staff. Prereq: 4471. (Same as Linguistics 4471-81.)

4510 Introduction to Literary Criticism (3)

4610-20-30 Black Literature (3, 3, 3) Trends and developments.

4651 Southern Literature from 1585 to 1860 (3) Beginning of writing in the South, especially in its relation to formation of regional or southern tradition in literature.

4652 Southern Literature from 1860 to 1970 (3) Humorists, local colorists, and realists of later nineteenth century and New South; emphasis upon Southern flowering of 1920-1950, recent trends.

4660 Emerson and Thoreau (3)

4690 American Humor through Mark Twain (3)

4720 Introduction to Folklore (3)

4730 The Popular Ballad (3)

4850 Milton (3) Emphasis on major poems.

4860 Seventeenth-Century Prose and Poetry (3) Bacon and Donne to Marvell.
Geography (415)

Professors:
E.H. Hammond (Head); Ph.D. California (Berkeley);
S.R. Jumper, Ph.D. Tennessee; R.G. Long, Ph.D.
Northwestern; T.H. Schmudde, Ph.D. Wisconsin.

Associate Professors:
C.S. Aiken, Ph.D. Georgia; T.L. Bell, Ph. D. Iowa;
J.W. Brinkman, Jr., Ph.D. Wisconsin; J.B. Rehder,
Ph.D. Louisiana State.

Assistant Professors:
J.R. Carter, Ph.D. Georgia; W.N. Cherry, M.S.
Tennessee; B.A. Ralston, Ph.D. Northwestern.

UNDERGRADUATE

Major: Eight hours in courses numbered at the 1000 or 2000 level are recommended as an introduction to a major which consists of Geography 4100, 4710 and 4990, and an additional 28 hours selected from courses at the 3000 and 4000 level. At least one course must be selected from each of the following groups:

- Physical Geography: 3520, 3530, 4550
- Economic Geography: 3410, 3430, 3490, 4610, 4630
- Cultural Geography: 3450, 3610, 3660, 4240
- Regional Geography: 3790, 3800, 3810, 3840, 3870, 3880, 3910, 3920, 3930, 3940

For those pursing a program leading to professional employment or graduate study in geography, 4210 and/or a senior project under 4103 are strongly recommended.

Minor: Eight hours in courses numbered at the 1000- or 2000-level are recommended as an introduction to the minor which consists of 24 hours selected from courses at the 3000- and 4000-level.

Students wishing to major or minor in geography are strongly urged to consult with a departmental undergraduate adviser. Through choices available within the structure of the major and by appropriate selection of electives outside the department, each student may develop a coherent program in accordance with his specific interests and needs. Such programs might emphasize particular aspects of geography itself or might develop interdisciplinary themes such as natural environment and resources, urban and regional planning or the culture, history or economy of a particular area. A useful technical or vocational specialty program is available which emphasizes cartography and remote sensing.

Asian Studies. See Cultural Studies.

Latin American Studies. See Cultural Studies.

Russian and East European Studies. See Cultural Studies.

1610-20 Introduction to Geography (4, 4) Selected problems or situations of contemporary interest are studied in depth, illustrating geographical points of view and techniques. Not need be taken in sequence. Not open to students who have taken 1110 and 1120, respectively.

1810-20 Geography of the Natural Environment (4, 4) Characteristics and processes of earth's surface and lower atmosphere; their interaction to produce world patterns of distinctive emendation significant to man. Must be taken in sequence. 1810 not open to students who have taken 1110.

2110-20-30 Economic Geography (4, 4, 4) The significance of location, pattern, and environment in economic activities. Emphases: 2110—agriculture; 2120—energy, minerals and manufacturing; 2130—transportation and trade. Need not be taken in sequence.

3000 Man, Location, and Behavior (4) Types of human spatial behavior, such as shopping patterns, commuting, residential mobility, trade, and regional consciousness, as they relate to distance, natural environment, and culture. Order and regularity in pattern of human use of earth's surface.

3410 Intermediate Economic Geography (4) Concepts, theories, and practices in location planning. Local patterns in agriculture, manufacturing, and service activities.

3430 Urban Geography (4) Concepts and theories concerning development and significance of systems of cities and internal morphology of cities. Not open to students who have taken 4660.

3450 Rural Geography (4) Geographical appraisal of rural areas of the United States, including small towns and urban fringes. Problems and potentials of rural America.

3490 Geography of Resources (4) Study of factors related to variations in resource availability from time to time and from place to place, with particular emphasis upon energy and metallic resources.

3510 Meteorology (4) Introduction to dynamic atmosphere and resultant weather events. Nature of individual weather elements, their measurement, and analysis over time and space.

3520 The Atmospheric System and Man (4) Overview of general circulation system leading to world pattern of climates. Role of climate in agriculture, architecture, human comfort, and economic activity.

3530 The Land-Surface System and Man (4) Nature and regional variations in relationships among surface form, water, vegetation, and surface materials. Man as evaluator and agent of change.

3600 Geography of Population (4) World population pattern; regional socioeconomic characteristics and demographic trends; relationship to resource base.

3610 Political Geography (4) Importance of geographic factors for understanding political relationships within and between nations; spatial implications of political decision-making process; geography of administrative units.

3660 Cultural Geography (4) Basic concepts of culture; methods and background of cultural geography; world patterns of cultural phenomena.

3790 Geography of Middle America (4) Covers Mexico, Central America, and the West Indies. Not open to students who have taken 3740, 3770, or 3780.

3800 Geography of South America (4) Not open to students who have taken 3730, 3750, or 3760.

3810 Geography of Europe (4)

3840 Geography of Australia and Oceania (4) Survey of major physical, economic and social characteristics of Australia, New Zealand, and impact of western civilization on selected island groups of Southwest Pacific.

3870 Geography of Asia (4) A survey of the physical, cultural and economic characteristics of the countries of Asia, excluding the Soviet Union. Not open to students who have taken 3820, 3890, or 3900.

3860 Geography of the Soviet Union (4)

3910 Regional Geography of United States and Canada (4) Major physical, economic, and social distributions as they interrelate to give distinctive character to regions of United States and Canada. Not open to students who have taken 3710 or 3720.

3920 Geography of the American South (4)

3930 Geography of Tennessee (4)

3940 Geography of Appalachia (4) Interrelation of physical, economic, and social patterns to give
distinctive character to the region and its parts, especially Southern Appalachia. Appalachia in perspective in the current American scene.

4100 Quantitative Methods in Geography (4) Geographic applications of statistical techniques, point pattern analysis and analysis of aerial data. Prereq: Mathematics 3000 or permission of instructor.

4101 Foreign Study (1-16) See page 177.

4102 Off-Campus Study (1-16) See page 177.

4103 Independent Study (1-16) See page 177.

4210 Problems in Geographic Method (4) Examples of problems and approach in geographic analysis and synthesis. Emphasis on character of geographic data, area sampling, generalization, classification, regionalization, and questions of scale.

4240 Historical Geography of the United States (4) Survey of changing human geography of United States during four centuries of settlement and development. Emphasis upon changing population patterns, development of agricultural regions and patterns of urban development. Not open to students who have taken 4250-60.

4510 Principles of Geomorphology (4) (Same as Geology 4510.)

4550 Geography of Soils (4) Soils as physical systems and their relationship to environments. Investigation of specific cases of role of soil in management of environmental systems.

4610 Industrial Geography (4) Factors affecting location of manufacturing activities, with emphasis on the United States. Prereq: 3410 or permission of instructor.

4630 Geography of Agriculture (4)

4710 Cartography (4) Map construction, map reproduction, and practice in map drawing.

4720 Data Mapping (4) Methods of representing spatial distributions by maps and graphs. Mappable data may include points, lines, and areas as diverse as birth rates, voting patterns, and air pollution levels. Prereq: Junior standing or permission of instructor.

4740 Remote Sensing: Types and Applications (4) Basic theory and principles and uses of aerial photography and other remote sensing techniques. Emphasis upon value of various types of imagery for geographic interpretation and simple mapping. Prereq: Permission of instructor.

4990 Seminar in Geography (4) Overview of major themes in geography, especially trends over past 20 years. Designed for undergraduate majors and minors; not open to graduate students. Prereq: Completion of at least 12 hours of major or minor requirements for geography.

GRADUATE

Master's Program

The general requirements for the Master's degree are given in the Graduate School Catalog.

Doctoral Program

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

5000 Thesis

5011 Foreign Study (1-12)

5102 Off-Campus Study (1-12)

5150 Introduction to Geographical Research (3)

5160 Research Design and Field Problems (4-6)

5170 Geographic Concept and Method (3)

5200 Special Problems in Geography (2-6)

5250 Advanced Historical Geography (3)

5260 Advanced Cultural Geography (3)

5310 Advanced Regional Geography of the United States (3)

5320 Advanced Regional Geography of the South (3)

5410-20 Advanced Economic Geography (3, 3)

5520 Advanced Urban Geography (3, 3)

5550 Topics in Geography of Land-Surface System (3)

5610 Topics in Climatology (3)

5710 Seminar in Geography (3)

5720 Topics in Quantitative Geography (3)

5740 Advanced Topics in Remote Sensing (3)

5915 Regional Geomorphology (4)

6000 Doctoral Research and Dissertation

6110-20 Seminar in Economic Geography (3, 3)

6220-30 Seminar in Urban Geography (3, 3)

6240-50 Seminar in Historical Geography (3, 3)

6280-70 Seminar in Cultural Geography (3, 3)

6310-20 Seminar in Rural Geography (3, 3)

6410-20 Seminar in Regional Geography of United States (3, 3)

6610-20 Seminar in Regional Geography of Latin America (3, 3)

6710-20 Seminar in Physical Geography (3, 3)

Geological Sciences

Professors: G. Briggs (Head), Ph.D. Wisconsin; H.J. Klepser, Ph.D. Ohio State; O.C. Kopp, Ph.D. Columbia; R.E. McLaughlin, Ph.D. Tennessee; D.H. Roeder, Ph.D. Goethe University (Germany); K.R. Walker, Ph.D. Yale; J.G. Walls, Ph.D. North Carolina.

Associate Professors: M. Clark, Ph.D. Pennsylvania State; L.A. Taylor, Ph.D. Lehigh.

Assistant Professors: D.W. Byerly, Ph.D. Tennessee; F.B. Keller, M.Ph. Yale; K.C. Misra, Ph.D. Western Ontario; W.P. Staub, Ph.D. Iowa State.

The Department of Geology provides training for (1) those who plan a professional career as a professional geologist in industry, federal and state surveys, education or other fields which utilize earth scientists; and, (2) those who seek a general knowledge of geology and its relationship to the other sciences, such as engineering, business, law, and other disciplines.

The major requirements set forth below are designed to provide geology majors with a broad base from which qualified students may proceed into advanced study in one or more of the branches of geology or related minor fields. Because a wide range of elective courses is available, it is essential that each student be guided in planning his program by a departmental adviser. A list of advisers is available in the departmental office.

UNDERGRADUATE

Major: Geology 1510 and 1520 or 1810 and 1820 are prerequisite to a major which consists of Geology 3160, 3260, 3360, 3370 and at least 24 hours additionally in upper-division courses in geology chosen to include at least twelve hours from among the following courses: Geology 3510, 4110, 4115, 4230, 4510 and 4610. Geology 4310 and/or 4440 (or equivalent) are strongly recommended for students planning to become professional geologists.

Because of the interdisciplinary nature of geology and the prerequisites for advanced study, students who major in geology are required to take the following allied science and mathematics courses: Biology 1210-20; Chemistry 1110-20; Mathematics 1840-501 Physics 2210-20 or 2510 and 2310-20. It is recommended that students take additional courses beyond the elementary level in at least one of the above allied fields.

Minor: Geology 1510 and 1520 or 1810 and 1820 are prerequisite to a minor which consists of at least twenty-four hours in courses numbered 2000 or above.

Geology (424)

1000 Frontiers in Earth and Planetary Sciences (4) Recent developments in earth science of interest to the public. Designed for non-majors; treats popular topics such as discoveries on moon by Apollo missions, earthquake prediction, and drifting of continents.

1510 Geoscience I (4) Introduction to study of the earth with emphasis upon its materials and processes which change it. 3 hrs and 1-2 hr lab or field period.

1520 Geoscience II (4) Continuation of Geoscience I emphasizing changes of the earth and its inhabitants throughout time. Prereq: 1510. 3 hrs and 1-2 hr lab or field period.

1610-20 Introductory Geology (4, 4) Introductory course sequence emphasizing geological principles and methods of study, 1810-Earth, its materials and processes that change it, 1820-Origin and development of earth and life upon it. Designed for students with strong interest in science, course is taught by team of specialists, each representing units in his area of specialization. Laboratory and field trips provide opportunities to apply principles and methods of study to specific geologic problems. Must be taken in sequence. Students having begun 1510-20 sequence can change into 1810-20 sequence and vice versa. 3 hrs. and one 2 hr lab or field period.

2130 Geologic History of the Earth (4) Origin and evolution of continents, atmosphere, oceans and earth's inhabitants with emphasis on physical history of North America. Prereq: 1520 or 1820. 3 hrs and 1 lab or field period.

2210 History of Life on Earth (4) Chronological account of origin and evolution of life, its environment, and societal patterns. Not intended for geology majors. 3 hrs and 1 lab or field period.


2610 Introductory Geology for Engineers (3) Materials and structure of the earth. For College of Engineering students only. 2 lectures and 1 lab or field period.

2710 Introductory Oceanography (4) Introduction to studies of oceans including origin and development

\[1\] Mathematics 1840-50 has prerequisites of 2 years high school algebra and one semester of trigonometry equivalent. Students who are deficient in these subjects may need to take Mathematics 1510 and/or 1590 prior to enrolling in Mathematics 1840-50. Consult with the Mathematics department of this catalog or the Department of Mathematics for details.
of ocean basins and physical and biological processes within ocean basins and their contained water and sediment masses. 1510 or 1810 recommended.

3160 Introduction to Earth Materials (4) Introduction to the occurrence, minerals, rocks and soils. Laboratory includes hand specimen and analytical methods of identification of important rock-forming and economic minerals and rock types. Prereq: 1510 or 1810. 2 lectures and 2 labs.

3180 Mineralogy (4) Classification and identification of silicate and non-silicate minerals. Minerals as phases in rock systems. Laboratory includes hand specimen, chemical and X-ray methods of identification. Prereq: 3160; Chemistry 1110-20 or equivalent. 2 lectures and 2 labs.

3210-20 Invertebrate Paleontology (4, 4) Systematic review of important invertebrate fossil groups. 3210—Protista to Brachiopods, including sponges, coelenterates and bryozoa. 3220—Phoridors to Hemichordata, including annelids, molluscs, arthropods and echinoderms. May be taken separately or in any order. Prereq: 3260; Biology 1210-20 or permission of instructor. 3 hrs and 1 lab or field period.

3250 Micropaleontology (4) Microscopic remains of animals and plants with special emphasis on stratigraphically important groups. Prereq: 3210 or permission of instructor. 3 hrs and 1 lab.

3260 Paleobiology (4) Introduction to principles and materials of paleontology as applied to interpretation of earth history. Prereq: 1520 or 1820; Biology 1210-20 or permission of instructor. 3 lectures and 1 lab or field period.

3270 Geological History of Land Organisms (4) Geological history and development of terrestrial biota and ecosystem with special emphasis on fossil record of land plants and vertebrates. Prereq: Biology 1210-20 or permission of instructor. 3 lectures and 1 lab or field period.

3290 Physical and Biological Quaternary Environment of Humans (4) Interdisciplinary interactions of physical environment and human activities. Examines factors affecting development, use, and decline of human communities. More importantly, stressing important effects on landscapes and biota that influence humans today. 2 lectures and 3 hrs and 1 lab or field period.

3310 Lithology (4) Classification and properties of igneous, metamorphic and sedimentary rocks. Laboratory includes both hand specimen and microscopic study of important rock types. Prereq: 3160, 3180 strongly recommended. 2 lectures and 2 labs.

3330 Geology of East Tennessee (4) Lectures and field excursions. Prereq: 12 quarter hours of geology and permission of instructor.

3360 Stratigraphy-Sedimentation (4) Introduction to principles, stratigraphic and sedimentary processes and interpretation of depositional environments. Prereq: 1520 or 1820 and 3160. 3 hrs and 1 lab or field period.

3370 Structural Geology (4) Introduction discussion of structures such as faults, folds, joints, cleavage, and primary structures. Laboratory work includes depth and thickness problems. Structure sections, structure contour maps, etc. Prereq: 1520 or 1820; Mathematics 1840-50 or equivalent. 3 hrs and 1 lab.

3410 Principles of Ground Water Geology (3) Geological materials and processes affecting the occurrence and behavior of water. Not open to geology majors. 2 lectures and 1 lab. (Same as WRD 3410.)

3510 Introductory Environmental Geology (4) Geologic problems involving earth environments and resources, and geologic parameters associated with their control and misuse. Prereq: 1520 or 1820 or permission of instructor. 2 lectures and 2 lab or field periods.

3520 Our Changing Landscapes (4) Basic introduction to study of landscape-forming processes and their interactions with earth materials to produce landscapes. Laboratory experience includes slope and stream-able experiments and field experience. Not intended for geology majors. 2 hrs and 2 lab or field periods.

3610 Quaternary Geology for Engineers (3) Erosional and depositional processes, landscapes, groundwater, 2 lectures and 1 lab or field period. Prereq: 2610 or equivalent.

3710 Origin and Evolution of the Continents and Ocean Basins (4) Introductory study of origins and changes that have occurred in earth's crust with emphasis on modern concepts of continental drift and plate tectonics. Prereq: 1520 or 1820.

4110 Principles of Economic Geology (4) Formation of mineral deposits. Prereq: 3160; 3370 or equivalent.

4115 Elementary Applied Geophysics (4) Basic principles of electrical, seismic, gravity and magnetic surveying. Recommended: 1520, Physics 2220 or 2230. 3 lectures and 1 lab.

4130 Sedimentology (4) Prereq: 3310. 2 hrs and 2 labs.

4210 Biostatigraphy (4) Fossil faunas and floras and their use in geochronology, stratigraphic correlation, and paleoecology. Prereq: 3210-20. 3 hrs and 1 lab.

4230 Paleocology (4) Principles of environmental analysis as applied to fossil assemblages and associated lithologies. Prereq: 3260 or permission of instructor. 3 hrs and 1 lab.

4240 Paleobotany (4) Survey of fossil record of plants with particular emphasis on (1) comparative morphology and evolutionary trends in major plant groups and (2) chronological succession and geographic distribution of past floras on earth. Prereq: 1520 or 1820 or 2210; Botany 3010-20 or permission of instructor. 3 hrs and 1 lab or field period. (Same as Botany 4240.)

4310 Geologic Mapping (4) Interpretation of maps and methods of geologic mapping. 3 lectures and 1 lab or field period. Prereq: 12 quarter hours of geology and permission of instructor.

4370 Tectonic Styles (4) Elements, habitats, and geotectonic causes of basic styles of tectonic deformation are presented on maps, sections, aerial photographs and fabric diagrams. 3 lectures and 1 seminar or lab. Prereq: 3370 or permission of instructor.

4440 Field Geology (5) Five weeks' field course, first term summer quarter. Advanced undergraduates or first-year graduate students in geology. Employs entire year of students. A report is required, to be submitted no later than end of fall quarter. 12 quarter hours of geology and permission of instructor.

4480 Geologic Photography and Photogrammetry (4) Principles of terrestrial and aerial geologic photography, including photographic principles and problems and practical applications of terrestrial and aerial photography, and image interpretation. Prereq: 3370 or permission of instructor. 3 lectures and 1 lab.

4510 Principles of Geomorphology (4) Gradational processes acting at earth's surface and landforms produced. Prereq: 1510 or 1810 or permission of instructor. 3 hrs and 1 lab.

4610 Principles of Geochemistry (4) Application of chemical principles to geological problems. Emphasis on crystal chemistry and relation between basic atomic structure and distribution and behavior of elements in the earth's crust. Prereq: Chemistry 1110-20 or equivalent required. Recommended 3160.

4650 Mineral Phase Equilibria (3) Principles of phase chemistry and application of phase equilibria studies in rock-forming mineral systems as aid to understanding conditions of formation and modification of rocks. Prereq: 3310 or permission of instructor.

4660 Electron Microprobe Analysis: Theory and Application (3) Techniques and applicability of electron probe in chemical analysis; emphasis on applications in the earth sciences. Prereq: 3310 or permission of instructor. 2 lectures and 1 lab.

4710 Petrophysics (3) Fluid, heat, electric current and ionic flow through rock masses in a potential field. Stress-strain behavior of rock as a function of temperature and pressure. 3 lectures per week. Prereq: 3310; Mathematics 1830, Physics 1330; Recommended: Mathematics 2610 and 2620.

4780 Global Tectonics (3) Earth's gravity field, seismology and internal structure of earth; geo-magnetic field, paleomagnetism, radioactivity and age of earth; earth's internal heat, creep and anelasticity of the mantle. 3 lectures per week. Prereq: 4115 or permission of instructor.

4810 Special Problems in Geology (1-4) Prereq: Permission of instructor. May be repeated to a maximum of 4 hours credit.

GRADUATE Master's Program

General requirements for Master's degree given in the Graduate School Catalog.

Doctoral Program

General requirements for Doctor's degree given in the Graduate School Catalog.

5000 Thesis

5050 Geochemistry of Ore Mineral Deposits (3)

5060 Experimental Geochemistry (3)

5069 Experimental Geochemistry Laboratory (1-3)

5120 Geophysics-Gravity and Magnetic Methods (4)

5130 Geophysics-Seismic Exploration Methods (4)

5210-20-30 Special Problems in Geology (1-4, 1-4, 1-4)

5290 Quaternary Problems (4)

5310 Principles of Stratigraphy (4)

5320-30 Advanced Historical Geology (3, 3)

5340 Seminar in Local Stratigraphy (1)

5350-60 Selected Topics in Geology (1, 1)

5370 Mesofacial Analysis (4)

5460 Photogeologic Interpretation (4)

5470 Plate Tectonics and Orogeny (4)

5510 Optical Mineralogy (4)

5520 Igneous Petrology (4)

5530 Metamorphic Petrology (4)

5540 Non-carbonate Sedimentary Petrology and Basin Analysis (4)

5550 Carbonate Sedimentology (4)

5630 X-ray Diffraction and Spectroscopy (4)

5640 Clay Mineralogy (4)

5650 Thermodynamics for Geologists (3)

5660 Chemical Geology (3)

5670 Geochemical Prospecting (3)

5710 Advanced Paleontology (4)

5750 Petrophysics (3)

5810 Geology of Fuels (4)

5820 Metallic Mineral Deposits (4)

5830 Non-metallic Mineral Deposits (4)

5840 Ore Microscopy (4)

5850 Regional Studies in Economic Geology (3)

5915 Regional Geomorphology (4)

6000 Doctoral Research and Dissertation
Germanic and Slavic Languages

Professors: H. Kratz (Head), Ph.D. Ohio State; H.W. Fuller, Ph.D. Wisconsin; E.T. Hankamer (Emeritus), Ph.D. Brown (Germany); R.L. Hillestad, Ph.D. Cornell; R.L. Nordensiek, Ph.D. Ohio State; J.C. Osborne, Ph.D. Northwestern.

Associate Professors: J.E. Falen, Ph.D. Pennsylvania; D.E. Lee, Ph.D. Stanford; P.R. Vanderbilt.

Assistant Professors: K.L. Black, Ph.D. Bryn Mawr; J.S. Elliott, Ph.D. Michigan; D.M. Fieno, Ph.D. Indiana; G.J. Givette, Ph.D. Wisconsin; N.A. Lauckner, Ph.D. Wisconsin; C.J. Meller, Ph.D. Chicago.

Instructors: D.F. Brandt, M.M. Syracuse; M.H. Harris, M.A. Illinois; J.M. Rasmussen, Diploma, City College, Tallinn, Estonia.

On leave.

UNDERGRADUATE

Racial Examinations: Students who have had previous work in German or Russian either in high school or in another college should register for the course in which they would normally be placed. During the first week of the quarter a placement test will be given, and students will be advised if a change in registration is indicated.

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

Foreign Study: Students are encouraged to study abroad. The department is prepared to recommend summer study programs and junior year abroad programs for students who are interested in foreign study.Credits from recognized foreign study programs can readily be transferred to the University of Tennessee. For qualified students, the department also offers German 4100 Foreign Study and Russian 4100 Foreign Study. See page 177. Students should consult the department before registering for the foreign study course.

German

Major: Majors or minors in German should carefully prepare their programs in consultation with a departmental faculty adviser. German 2510-20 or 2530-40 or the equivalent is a prerequisite to the major and minor. The major concentration shall consist of at least 36 hours of German in courses numbered above 3000, usually including German 3110-20-30 (or 3410-20-30), 3810-20-30, 8 hours in literature or in courses numbered above 3000, excluding 3010-20-30 and courses in English translation.

It is recommended that German majors also take History 1510-20 or 3710-20-30 and 8 hours of another language or another, or a minor in German. Majors are also strongly urged to consider a minor in some other area of the humanities.

German 2510-20, 2530-40 or its equivalent is a prerequisite to the minor. The minor concentration shall consist of at least 24 hours of German courses numbered above 3000, which will normally include German 3110-20-30 (or 3410-20-30), and 15 additional hours of courses numbered above 3000, excluding 3010-20-30 and courses in English translation.

Russian

Major: Russian majors should carefully prepare their programs in consultation with the departmental faculty adviser. Russian 2510-20 or its equivalent is a prerequisite to the major. Russian 2640-50 is a corequisite to the major. The major itself consists of 36 hours of Russian courses, including Russian 3510-20, 3610-20-30, 9 hours from Russian 3210-21-30-40-50-60, and 9 hours of courses numbered above 4000. It is recommended that majors also take History 3470-80-90 and 9 hours of another language or another, or a minor in Russian. Majors are urged to consider a minor in some other area of the humanities.

Minor: Russian 2510-20 or its equivalent is a prerequisite to the minor. The minor itself consists of 27 hours of Russian courses, including 9 hours from Russian 2640-50 and/or 3210-20-21-30-40-50-60 and 18 hours to be taken from Russian 3510-20, 3610-20-30 and courses numbered above 4000.

Russian and East European Studies. See Cultural Studies.

Certification for Teaching German and Russian in Tennessee

Consult Certification Clerk, Room 212, Claxon Education Building.

German (433)

1510-20 Elementary German (4, 4) Must be taken in sequence.

1518-2518-28 Honors: Elementary and Intermediate German (5, 5, 5) Honors course for students of superior ability. Freshmen are admitted on the basis of high school average and performance on the American College Testing Program. Upper-classmen must have a B average. A grade of C or above must be achieved in 1518 in order to continue with 2518. A student obtaining a grade of D or better in 1518 may continue with German 1520. This sequence is equivalent to 1510-20 and 2510-20 and its completion qualifies the student to enter all 3000-level German courses.

1530 Elementary German through Individualized Instruction (1-8) Same material as in German 1510-20, but student may proceed at his own pace, with a minimum of one credit hour per quarter. With completion of four hours student has option of transferring to 1520. May be repeated. Maximum credit 8 hours.

2510-20 Intermediate German (4, 4) Must be taken in sequence. Students who have had two units of German in high school may begin one year in college and who wish to continue Intermediate German after some lapse of time are given the opportunity of enrolling in a five-hour per week section of German 2510-20. In this class they will have the benefit of a controlled review of the basic essentials of Elementary German.

2530-40 Intermediate German (4, 4) For students in Science-Medical curriculum or B.S. curricula in natural science, mathematics, or engineering.

3010-20-30 Elements of German for Upper Division and Graduate Students (3, 3, 3) For graduate students preparing for language examinations and Upper Division undergraduates desiring reading knowledge of second foreign language. Prereq: Two years of some foreign language in college or permission of department. Undergraduate grade only. No credit for students having completed 1510-20.

3040 Elementary Dutch (3) Prereq: reading knowledge of German. Primarily for graduate students in German. No graduate credit allowed.

3110-20-30 Introduction to German Literature (3, 3) Prereq: 2520 or equivalent.

3410-20 Readings in Modern and Contemporary German Literature (3, 3) Prereq: 2520 or equivalent.

3610-20-30 Conversation and Composition (3, 3, 3) Prereq: 2130 or equivalent.

ADVANCED UNDERGRADUATE AND GRADUATE

4101 Foreign Study (1-16) See page 177.

4102 Off-Campus Study (1-13) See page 177.

4103 Independent Study (1-16) See page 177.

4110-30 Studies in Classical and Modern Writers (3, 3, 3) Content varied. May be repeated for credit with permission of department. Prereq: 9 hours of 3000 courses (exclusive of 3010-20-30, 3210-20-30, 3310) or equivalent.

4140-50 Selected Topics in German Literature from 1750 to the Present (3, 3) Prereq: 9 hrs of 3000 courses (exclusive of 3010-20-30 and 3210-20-30) or equivalent.

4160 Studies in German Authors (3) Life and works of a single outstanding German literary figure. Content varies. May be repeated for credit. Prereq: 9 hrs of 3000 courses (exclusive of 3010-20-30 and 3210-20-30).

4170 Theatrical German (1-3) Performance in one or more German plays. May be repeated for credit with permission of department. Prereq: 2520 or equivalent or consent of instructor.

4210-20-30 Studies in German Literary Types (3, 3, 3) Lyric Poetry, Novella, Drama, 4230--Narrative Prose. Prereq: 9 hrs of 3000 courses (exclusive of 3010-20-30, 3210-20-30, 3310) or equivalent.

4250 Introduction to Descriptive Linguistics (3)

(Same as Russian, French and Spanish 4250.)

4260 Introduction to Historical and Comparative Linguistics (3) This course is designed to provide students with an overview of historical and comparative linguistics. It will familiarize students with the major developments in the field, and will provide them with a working knowledge of the major theories and methods. Prereq: 3010-20-30 or equivalent.

4270 Introduction to Germanic Linguistics (3) Phonetics and phonemics of German, German grammar and German vocabulary from a descriptive point of view. Dialects of German. Introduction to study of other Germanic languages.

4310-20 History of German Language (3, 3)

4610-20 German Civilization (3, 3) Prereq: 2520 or equivalent.

4618-28-38 Honors: Senior German (3, 3, 3)
Intended to give student of special aptitude greater opportunity to do independent study than is possible in ordinary courses. Prereq: Senior standing, with a record of A in half of German courses taken as prerequisite to the 4000 courses, average of B in remainder, and permission of department.

4810-20-30 Advanced Conversation and Composition (3, 3, 3) Prereq: 3810-20-30 or equivalent or permission of department.

GENERAL COURSES

2640-50 Culture of German-Speaking Peoples (4, 4) Studies in culture and life-style of German-speaking peoples from their first contact with Romans to the present. Readings are in English language.

3210-20-30 German Literature in English Translation (3-4, 3-4, 3-4) No foreign language credit. No change in credit hours after add deadline. Students opting for 4 hours credit will be expected to present an appropriate amount of extra work above that requiring for 3 hours.

3240 Old Norse Literature in English Translation (3-4) Prose readings of sagas of Norwegian kings, great Icelandic family sagas, and Vinland sagas, narrating discovery of America, around the year 1000. Mythological and heroic poems of the Edda.

3250 Modern Scandinavian Literature in English Translation (3) Introduction to modern literature of Sweden, Norway, Denmark, and Iceland. Representative readings by such writers as Ibsen, Strindberg, Lagerlöf, Hamsun, Vesaas, Lagerkvist, Bang, Næs, Laxness.

3260 German Drama in English Translation (3) From Lessing to present. No foreign language credit.

3270 Modern German Novel in English Translation (3) From 1900 to present; Remarque, Hesse, Mann, Kafka, Frisch, Böll. Grass. No foreign language credit.

3280 Goethe's Faust in English Translation (3) Intensive study of Faust I and II and survey of criticism and interpretations of the work. No foreign language credit.

3310 Dramas of Bertolt Brecht (3-4) Chronological survey of Brecht's dramatic works and theoretical writings in English translation. No foreign language credit.

3320 Novels of Hermann Hesse (3-4) Study and analysis of Hesse's major novels in English translation. No foreign language credit.

3330 Dramas of Ibsen and Strindberg (3-4) Study of two principal forerunners of twentieth-century drama. Works are read in English translation. No foreign language credit.

3340 Special Topics in German Literature in English Translation (1-4) Topics and credit hours vary and are announced in advance. Student suggestions for topics are welcome. No foreign language credit. May be repeated for credit.

4050 The Faust Legend (3) Survey of development of legend from Faust chapbook to present, excluding Goethe's Faust. No foreign language credit.

GRADUATE

The Department of Germanic and Slavic Languages offers three advanced degrees. They are: Master of Arts (M.A.) in German, Master of Arts in College Teaching (M.A.C.T.) in German, and Doctor of Philosophy (Ph.D.) in German Language and Literature. The requirements for these degrees are set forth in the Graduate School Catalog.

5000 Thesis

5101 Foreign Study (1-12)

5102 Off-Campus Study (1-12)

5103 Independent Study (1-12)

5160 Introduction to German Semantics (3)

5200 Prossemene (3)

5210-20-30 College Teaching of German (1, 1, 1)

5410-20-30 Medieval German Language and Literature (3, 3, 3)

5500 Studies in German Literature (3)

5510 German Humanism and Reformation (3)

5520 German Baroque Literature (3)

5530 The Enlightenment and the Rococo (3)

5540 German Classicism (3)

5550 Goethe's Faust (3)

5560 German Romanticism (3)

5570 German Realism and Naturalism (3)

5580 Modern German Literature (1880-1945) (3)

5590 Modern German Literature (1945-Present) (3)

5600 German Literary Theory and Criticism (3)

5610-20-30-40-50-60 Directed Readings in German Language and Literature (3, 3, 3, 3, 3, 3)

5710 Introduction to Old Norse (3)

5720 Readings in Old Norse Prose (3)

5730 Readings in Old Norse Poetry (3)

6000 Doctoral Research and Dissertation

6100 Gothic (3)

6120-30 Old High German (3, 3)

6140 Old Saxon (3)

6210-20-30-40-50-60 Seminar in German Literature (3, 3, 3, 3, 3, 3)

6310-20-30 Seminar in German and Germanic Philology (3, 3, 3)

Russian (886)

1510-20 Elementary Russian (4, 4) Must be taken in sequence.

1610-20 Elementary Serbo-Croatian (4, 4) Must be taken in sequence.

1710-20 Elementary Czech (4, 4) Must be taken in sequence.

2510-20 Intermediate Russian (4, 4) Must be taken in sequence.

2670-80 Intermediate Serbo-Croatian (4, 4) Must be taken in sequence.

2710-20 Intermediate Czech (4, 4) Must be taken in sequence.

3010-20-30 Elements of Russian for Graduate Students and Seniors (3, 3, 3) For graduate students preparing for language examinations and seniors desiring reading knowledge of a second foreign language. Prereq: 2 yrs of some foreign language in college or permission of department. Undergrad. credit only. No credit for students having completed 3510-20 or equivalent.

3510-20 Russian Composition and Conversation (4, 4) Practice in writing and speaking; grammar review and vocabulary building.

3610-20-30 Introduction to Russian Literature (3, 3, 3) 3610: Russian Poetry. 3620: Russian Short Stories. 3630: Russian Short Novels. Prereq: Completion of Russian 3510-20 or equivalent.

ADVANCED UNDERGRADUATE AND GRADUATE

4010 Selected Topics in Russian and East European Studies (3) Interdisciplinary seminar on selected topic using comparative approach.

4101 Foreign Study (1-16) See page 177.

4102 Off-Campus Study (1-16) See page 177.

4103 Independent Study (1-16) See page 177.

4110-20-30 Studies in Major Russian Writers (3, 3, 3) Content varies. Pushkin, Lermontov, Gogol, Turgenev, Tolstoy, Chekhov, and others. Prereq: 9 hrs of 3000 courses (exclusive of 3010-20-30, 3210-20-30-40-50-60-70, 3310) or equivalent. May be repeated for credit.


4250 Introduction to Descriptive Linguistics (3) (Same as German, French and Spanish 4250.)

4260 Introduction to Historical and Comparative Linguistics (3) (Same as German, French and Spanish 4260.)

4270 Introduction to Slavic Linguistics (3)

4310-20-30 Advanced Studies in Russian Language (3, 3, 3) Intended primarily for students majoring or minoring in Russian who are interested in language and linguistics. Includes problems in morphology and syntax, stylistics and translation techniques and history of Russian language as well as other special problems for advanced students of Russian.

4410-20-30 Directed Readings in Russian (3, 3, 3) Intended primarily for students participating in program in Russian and East European Area Studies, course will involve individual study relating to student's major field. Prereq: 9 hours of 3000 level courses in Russian (exclusive of 3010-20-30, 3210-20-30-40-50-60-70, 3310 or equivalent).

GENERAL COURSES

2640-50 Background and Main Currents of Russian Culture (4, 4) A broad interdisciplinary approach to the appreciation of the language, religion, literature, art, music, history, geography, and social problems of Russia. No knowledge of Russian required. May not be taken for foreign language credit.

3210-20-21-30 Survey of Russian Literature in English Translation (3-4, 3-4, 3-4, 3-4) 3210—Russian realism; development of nineteenth-century novel; selections from works of Pushkin, Gogol, Lermontov, Leskov, Goncharov, Chernyshyevsky, and others. 3220—Works of A. Tolstoy. 3221—Works of F.M. Dostoevsky. 3230—Twentieth-century Russian literature, on eve of revolution and under Soviets.

3240 The Russian Drama in English Translation (3-4) Selections from works of Goncharov, Gogol, Chekhov, and others.

3250 The Works of Ivan Turgenev and Anton Chekhov in English Translation (3-4)

3260 Russian Folklore in English Translation (3-4)

3270 Russian Philosophical and Theological Thought (4) A survey of the development of philosophical and theological thought in Russia from the Middle Ages to the Revolution. Special emphasis on the expression of this thought in Russian literature and literary criticism. No knowledge of Russian required. (Same as Philosophy 3270 and Religious Studies 3270.)

Greek

See Classics.

Greek and Roman Civilization

See Cultural Studies.

Hebrew

See Religious Studies.
1610-20 A History of World Civilization Since 1450 (4, 4) Interaction of Western World and Non-Western Societies in the 15th century. 1610—ca. 1450-1800. 1620—1800 to present.


2350 U.S. and World Crisis, 1889 to Present (4) An introduction to the course in history of the 20th century. 2370-American Foreign Relations. May not satisfy major or minor requirements.

2510-20 History of the United States (4, 4) 2510—Settlement to 1865. 2520—1865 to present.

2511-21 Readings in United States History (1, 1) Directed readings in aspects of the national past. For students who have not yet met Tennessee Legislation requirements in American history, and for transfers who enter Liberal Arts with credits, but fewer than eight, in an American history sequence. 2511—Settlement to 1865. 2521—1865 to present. Prereq: permission of department. Coreq: 2510 for 2511, 2520 for 2521.

2518-28 Honors: History of the United States (4, 4) Consent of department required.

3008 Honors: Introduction to Historical Analysis and Interpretation (3) Required of students working for honors in history.

3038 Honors: Philosophy and Method (3) Principles and techniques of research and study of critical and speculative philosophy of history. Required of students working for honors in history. Admission with permission of department.

3048: Honors: Readings (3) Required of and open only to students working for honors in history.

3061-71 History of Western Religious Thought and Institutions (4, 4) Same as Religious Studies 3061-71.

3140-50-60 History of England (3, 3, 3) 3140—To 1688. 3150—1688 through Reform Bill of 1682. 3160—1832 to present.

3311-21 History of Tennessee (3, 3) 3311—18th century to Civil War Era. 3321—1865 to present.

3411-12-13 Renaissance and Reformation (3, 3, 3) 3411—Renaissance. 3412—Reformation. 1517-1550. 3413—Catholic Reformation and Wars of Religion. (Same as Religious Studies 3411-12-13.)

3421-22-23 Early Modern Europe 1600-1815 (3, 3, 3) 3421—Seventeenth Century Europe. 3422—Ancient Regime. 3423—French Revolution and Napoleon.


3445-46 History of France (4, 4) 3445—France to 1875. 3446—France since 1871.

3470-80-90 History of Russia (3, 3, 3) 3470—To 1801. 3480—19th Century. 3490—20th Century.


3670 Popular Culture in the United States (4) Examination of significance of fads, fashions, and amusements of American public from Colonial period through the fifteenth century in history of American society. For graduate credit.

3680 Indian-White Relations in United States History (4) White man's relationship with the Indian since Colonial times. Emphasis on dilemma of two cultures existing side by side; background and formulation of official Indian policy; undermining of policy by frontier circumstances; Indian wars and campaigns; and present-day relationships. Not for graduate credit.

3710-20-30 History of Germany (3, 3, 3) 3710—First Reich, 1713-1871. 3713—Luebsberg and Hohenzollern, Formation of Second Reich, 1713-1890. 3730—From a Unified to a Divided Germany, 1890 to present.

3751 Ancient Near Eastern Civilization (3) Early and Middle Bronze Ages.

3752 Ancient Near Eastern Civilization (3) Late Bronze and Iron Ages.

3760-70 The Ancient World (3, 3) 3760-Greece. 3770-Rome.

3780-90 History of the Middle East (3, 3) 3780—Rise and spread of Islamic Civilization to the 16th century. 3790—The Impact of the West on the Middle East from the 16th Century to World War I.

3795 Contemporary Middle East (4) Background of current problems in the area, from World War I to present. (Same as Political Science 3795)

3810-20-30 History of East Asia (3, 3, 3) 3810—Traditional China and Japan, ancient to mid-nineteenth century. 3820—Modern China, Japan, and Korea, mid-nineteenth century to 1920's. 3830—Contemporary China, Japan, and Korea, 1920's to present.

3870-80-90 History of Latin America (3, 3, 3) 3870—Exploration, conquest, settlement, and colonial life to 1800. 3880—Major countries of South America, 1800-present. 3890—Mexico, Central America, and the Caribbean, 1800-present.


4010-11-12 History Colloquia, (3, 3, 3) 4010—General. 4011—European. 4012—American. Small group study of selected historical period or theme. Recommended that students have previously taken appropriate lower-division historical sequence.

4015 Studies in History (3) Variable content course. 4015 Studies in History (3) Variable content course. It may be used for credit.

4018-28 Honors: Senior Paper (0, 6) Required of students working for honors in history.

4101 Foreign Study (1-6) See page 177.

4102 Off-Campus Study (1-6) See page 177.

4103 Independent Study (1-6) See page 177.

4120-30 History of Colonialism and Imperialism (3, 3) 4120—Background. Age of Discovery and Exploration to Nineteenth Century. 4130—Nineteenth Century to Present.

4250-60-70 European Intellectual and Cultural History (3, 3, 3) 4250—From Reform to Scientific Revolution (1500-1700). 4260—From Enlightenment to Age of Realism (1700-1870). 4270—From Subjectivism to Relativism (1870-present).

4280 Women in European History (4) Comparative analysis of role and image of women in Medieval, Renaissance, and Victorian periods. Attention given to parallel changes in structure of family as well as to relationship between Western culture and women's protest movements.

4290 Women in American History (4) Approaches of 4280 applied to American society.

4311-21 History of American Foreign Relations I, II (4, 4) 4311—Reformation to 1912. 4321—1912 to present.