2008-2009
GRADUATE
CATALOG
THE UNIVERSITY OF TENNESSEE
KNOXVILLE
THE GRADUATE CATALOG

The Graduate Catalog represents the offerings and requirements in effect at the time of publication, but there is no guarantee that they will not be changed or revoked. The course offerings and requirements of the institution are continually under examination and revision. However, adequate and reasonable notice will be given to students affected by any change. This catalog is not intended to state contractual terms and should not be regarded as a contract between the student and the institution. The institution reserves the right to change any provision, offering, or requirement to be effective when determined by the institution. These changes will govern current and readmitted students. Enrollment of all students is subject to these conditions. The current catalog should be referred to during each year of study. The university further reserves the right to dismiss a student from the university for cause at any time.

Current information about the university can be found at

The University of Tennessee Homepage http://www.tennessee.edu
The Graduate School http://www.gradschool.utk.edu
Graduate and International Admissions http://admissions.utk.edu/graduate/
Office of the University Registrar http://registrar.tennessee.edu
Office of the Bursar http://web.utk.edu/~bursar
Office of Financial Aid and Scholarships http://web.utk.edu/~finaid
Center for International Education http://web.utk.edu/~globex/index.php
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Office of Information Technology http://oit.utk.edu/
Student Health Service http://web.utk.edu/~shs/
University Libraries http://www.lib.utk.edu/

STUDENT RESPONSIBILITY

Graduate students must assume full responsibility for knowledge of rules and regulations of the Graduate Council and departmental requirements for the chosen degree program. Any exceptions to the policies stated in the Graduate Catalog must be approved by the Dean of the Graduate School. Individual colleges and departments may have requirements beyond the minimum established by the Graduate Council. A calendar of deadlines and policies and procedures for graduate programs are found on the Graduate School Web page (http://gradschool@utk.edu). A statement of graduate students’ rights and responsibilities is included with the admission notification.

EEO/TITLE IX/AA/SECTION 504 STATEMENT

The University of Tennessee does not discriminate on the basis of race, sex, color, religion, national origin, age, disability, or veteran status in provision of education programs and services or employment opportunities and benefits. This policy extends to both employment by and admission to the university.

The university does not discriminate on the basis of race, sex, or disability in the education programs and activities pursuant to the requirements of Title VI of the Civil Rights Act of 1964, Title IX of the Education Amendments of 1972, Section 504 of the Rehabilitation Act of 1973, and the Americans with Disabilities Act (ADA) of 1990.

Inquiries and charges of violation concerning Title VI, Title IX, Section 504, ADA, the Age Discrimination in Employment Act (ADEA), or any of the other above referenced policies should be directed to the Office of Equity and Diversity (OED), 1840 Melrose Avenue, Knoxville, Tennessee 37996-3560, telephone (865) 974-2498 (V/TTY available) or 974-2440. Requests for accommodation of a disability should be directed to the ADA Coordinator at the UT Knoxville Office of Human Resources, 600 Henley Street, Knoxville, Tennessee 37996-4125.

The University welcomes and honors people of all races, genders, creeds, cultures, and sexual orientations, and values intellectual curiosity, pursuit of knowledge, and academic freedom and integrity.

In accordance with the Tennessee College and University Security Information Act of 1989 and the Student Right-to-Know and Campus Security Act, the University of Tennessee has prepared a report containing campus security policies and procedures, data on campus crimes, and other related information. A free copy of this report may be obtained by any student, employee, or applicant for admission or employment from the Office of the Dean of Students; The University of Tennessee; 413 Student Services Building; Knoxville, Tennessee 37996.

A project of the Office of the University Registrar, 209 Student Services Building, Knoxville, Tennessee 37996-0200.
PUBLICATION AUTHORIZATION NUMBER E17-0405-002-009-08.
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<table>
<thead>
<tr>
<th>COLLEGE OR UNIT</th>
<th>Elected Members</th>
<th>Expiration</th>
<th>Proxy</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agricultural Sciences and Natural Resources</td>
<td>Dr. Michael Essington</td>
<td>July 31, 2010</td>
<td>Dr. Donald Hodges</td>
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<td>Architecture and Design</td>
<td>Prof. Mark DeKay</td>
<td>July 31, 2010</td>
<td>Prof. Edgar Stach</td>
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<td>Dr. Marianne Breining</td>
<td>July 31, 2010</td>
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<td>Dr. Robert Compton</td>
<td>July 31, 2010</td>
<td>TBD</td>
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<td>Dr. Thomas Heffernan</td>
<td>July 31, 2010</td>
<td>Dr. David Anderson (2008)</td>
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<td>Dr. Karen Levy</td>
<td>July 31, 2008</td>
<td>Dr. Michael Handelman</td>
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<td>Dr. Stefanie Ohnesorg</td>
<td>July 31, 2010</td>
<td>Dr. Harry Dahms</td>
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<td>Dr. Jan Rosinski</td>
<td>July 31, 2009</td>
<td>Prof. James E. Diamond</td>
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<td>Business Administration</td>
<td>Dr. James Foggin</td>
<td>July 31, 2008</td>
<td>Dr. Mike Ehrhardt</td>
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<td>Dr. Michael Lane Morris</td>
<td>July 31, 2009</td>
<td>Dr. Frank Guess</td>
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<td>Dr. Rudy Santore</td>
<td>July 31, 2009</td>
<td>Dr. Bruce Fisher</td>
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<td>Dr. Ben Bates</td>
<td>July 31, 2008</td>
<td>Dr. Michelle Violanti</td>
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<td>Dr. Eric Haley</td>
<td>July 31, 2009</td>
<td>Dr. Suzanne Allard</td>
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<td>Education, Health, and Human Sciences</td>
<td>Dr. Vincent Anfara</td>
<td>July 31, 2010</td>
<td>Dr. Blanche O’Bannon</td>
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<td>Dr. Ralph Brockett</td>
<td>July 31, 2008</td>
<td>Dr. Grady Bogue</td>
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<td>Dr. Ann Fairhurst</td>
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<td>Dr. Susan Smith</td>
<td>July 31, 2008</td>
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<td>Dr. Michael Zemel</td>
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<td>TBD</td>
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<tr>
<td>Engineering</td>
<td>Dr. Richard Bennett</td>
<td>July 31, 2009</td>
<td>Dr. William Hamel</td>
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<td>Dr. Vijay Chellaboina</td>
<td>July 31, 2010</td>
<td>Dr. Belle Upadhyaya</td>
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<td>Dr. Itamar Elhanany</td>
<td>July 31, 2010</td>
<td>Dr. David Keffer</td>
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<td>Dr. Rupy Sawhney</td>
<td>July 31, 2009</td>
<td>Dr. Yanfei Gao</td>
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<td>Graduate Student Senate</td>
<td>Mr. Nicholas Cook</td>
<td>July 31, 2008</td>
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<td>Ms. Trey Forgety</td>
<td>July 31, 2008</td>
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<td>Ms. Valentina Kuznetsova</td>
<td>July 31, 2008</td>
<td>TBD</td>
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<tr>
<td>Nursing</td>
<td>Dr. Nan Gaylord</td>
<td>July 31, 2009</td>
<td>Dr. Sandra McGuire</td>
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<tr>
<td>Social Work</td>
<td>Dr. David Dupper</td>
<td>July 31, 2010</td>
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<td>Dr. John Wodarski</td>
<td>July 31, 2010</td>
<td>TBD</td>
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<tr>
<td>UT Space Institute</td>
<td>Dr. Basil Antar</td>
<td>July 31, 2010</td>
<td>Dr. Roy Schulz</td>
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<tr>
<td>Veterinary Medicine</td>
<td>Dr. Stephen Kania</td>
<td>July 31, 2009</td>
<td>Dr. Melissa Kennedy</td>
</tr>
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# ACADEMIC CALENDAR FOR 2008-2009

## Fall 2008 Semester

<table>
<thead>
<tr>
<th>Event</th>
<th>Date</th>
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<tbody>
<tr>
<td>Classes Begin</td>
<td>Wednesday, August 20</td>
</tr>
<tr>
<td>Labor Day</td>
<td>Monday, September 1</td>
</tr>
<tr>
<td>1st Session Ends</td>
<td>Wednesday, October 8</td>
</tr>
<tr>
<td>Fall Break</td>
<td>Thursday – Friday, October 9-10</td>
</tr>
<tr>
<td>2nd Session Begins</td>
<td>Monday, October 13</td>
</tr>
<tr>
<td>Thanksgiving</td>
<td>Thursday – Friday, November 27-28</td>
</tr>
<tr>
<td>Classes End</td>
<td>Tuesday, December 2</td>
</tr>
<tr>
<td>Study Days</td>
<td>Wednesday (Saturday &amp; Sunday), December 3 (6 &amp; 7)</td>
</tr>
<tr>
<td>Exams</td>
<td>Thursday, Friday (am) &amp; Monday – Thursday, December 4, 5, 8, 9, 10, 11</td>
</tr>
<tr>
<td>Graduate Hooding</td>
<td>Friday, December 12</td>
</tr>
<tr>
<td>Commencement</td>
<td>Saturday, December 13</td>
</tr>
</tbody>
</table>

## Spring 2009 Semester

<table>
<thead>
<tr>
<th>Event</th>
<th>Date</th>
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<tbody>
<tr>
<td>Classes Begin</td>
<td>Wednesday, January 7</td>
</tr>
<tr>
<td>MLK Holiday</td>
<td>Monday, January 19</td>
</tr>
<tr>
<td>1st Session Ends</td>
<td>Wednesday, February 25</td>
</tr>
<tr>
<td>2nd Session Begins</td>
<td>Thursday, February 26</td>
</tr>
<tr>
<td>Spring Break</td>
<td>Monday – Friday, March 16-20</td>
</tr>
<tr>
<td>Spring Recess</td>
<td>Friday, April 10</td>
</tr>
<tr>
<td>Classes End</td>
<td>Friday, April 24</td>
</tr>
<tr>
<td>Study Days</td>
<td>Monday (Saturday &amp; Sunday), April 27 (25 &amp; 26)</td>
</tr>
<tr>
<td>Exams</td>
<td>Tuesday – Tuesday, April 28, 29, 30; May 1, 4, 5</td>
</tr>
<tr>
<td>Graduate Hooding</td>
<td>Thursday, May 7</td>
</tr>
<tr>
<td>University College Ceremonies</td>
<td>Friday, May 8</td>
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</tbody>
</table>

## Summer 2009 Semester

<table>
<thead>
<tr>
<th>Event</th>
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<tbody>
<tr>
<td>Mini Session Begins</td>
<td>Wednesday, May 6</td>
</tr>
<tr>
<td>Memorial Holiday</td>
<td>Monday, May 25</td>
</tr>
<tr>
<td>Mini Session Ends</td>
<td>Wednesday, May 27</td>
</tr>
<tr>
<td>Full and 1st Session Begin</td>
<td>Monday, June 1</td>
</tr>
<tr>
<td>1st Session Ends</td>
<td>Thursday, July 2</td>
</tr>
<tr>
<td>Independence Day Holiday</td>
<td>Friday, July 3</td>
</tr>
<tr>
<td>2nd Session Begins</td>
<td>Monday, July 6</td>
</tr>
<tr>
<td>Full and 2nd Sessions End</td>
<td>Thursday, August 6</td>
</tr>
<tr>
<td>Summer Graduation Date*</td>
<td>Friday, August 14</td>
</tr>
</tbody>
</table>

*There is no commencement ceremony in the summer. This date is the official graduation date that will appear on the transcript of graduating students.*

The Academic Calendar is available on the Web at [http://registrar.utk.edu/academic_calendar.shtml](http://registrar.utk.edu/academic_calendar.shtml)
TABLE OF CONTENTS

Student Responsibility .................................. 2
Contacts .............................................. 2
University Administration .................................. 3
Graduate School Administration and Graduate Council
  Membership ........................................ 4
Academic Calendar for 2008-2009 ......................... 5
Graduate Degrees, Majors, and Certificate Programs .... 9
Graduate Degree Programs ................................ 18
Definition of Graduate Terms ................................ 18

THE GRADUATE SCHOOL

Introduction ......................................... 19

Admission Requirements .................................. 19
Application Procedures .................................. 20
Admission Classifications ................................ 20
  Degree Admission .................................. 20
  Non-Degree Admission ................................ 20
Graduate Certificate .................................... 20
  Transient Admission .................................. 20
Postdoctoral Admission .................................. 21
Admission of International Students .................... 21
English Certification ..................................... 21
Fees for Sponsored International Students ............. 21
Admission of Faculty and Staff Members ............... 21
Readmission ........................................... 21
Revision of Admission Classification ..................... 22

Registration and Enrollment Requirements .............. 22
Graduate Credit ........................................ 22
Undergraduate and Professional Students ............... 22
  UT Seniors ....................................... 22
  UT Veterinary Medicine Students .................... 22
UT Law Students ....................................... 22
Law Courses ........................................... 22
Graduate Certificate Programs ............................ 22
Senior or Disabled Citizens ................................ 23
Auditors and Audited Courses .............................. 23
Courses in Non-Standard Format ......................... 23
Correspondence Study .................................. 23
Proficiency Examinations ................................ 23
English Proficiency ...................................... 23
Prerequisites ........................................... 23
Advisor/Major Professor ................................ 23
Graduate Program Director ................................ 23
Registration ............................................ 24
  Conditional Registration ................................ 24
Registration for Use of Facilities ......................... 24
Change in Registration .................................. 24
Course Loads ........................................... 24
Grade Point Average and Grades .......................... 24
Academic Standards ..................................... 25
  Academic Probation .................................. 25
Dismissal .............................................. 25
Academic Honesty ....................................... 25
Plagiarism .............................................. 25
Appeals Procedure ...................................... 25

Degree Program Requirements ............................ 26
Minors ................................................. 26
Transfer Credits ....................................... 26
  Master's Degree .................................... 26
  Specialist in Education Degree ......................... 26
Doctoral Degree ....................................... 26
Theses and Dissertations ................................ 26
Foreign Language ...................................... 26

Classified Research .................................... 26
Dissemination of Final Copies ............................ 26
Graduation .............................................. 26
Master's Degree ....................................... 27
  Course Requirements ................................ 27
Second Master's Degree ................................ 27
  Master's Committee ................................ 27
Admission to Candidacy .................................. 27
  Thesis Registration .................................. 27
Thesis ................................................. 27
  Final Examination for Thesis and Problems in Lieu of Thesis . 27
Final Examination for Non-thesis Students ............ 27
Time Limit ............................................. 27
Specialist in Education Degree ......................... 28
  Course Requirements ................................ 28
EdS Committee ........................................ 28
Admission to Candidacy ................................ 28
Research Requirements .................................. 28
Final Examination ....................................... 28
Time Limit ............................................. 28
Doctoral Degree ....................................... 28
  Program of Study .................................... 28
Doctoral Committee ...................................... 28
Doctoral Examinations .................................. 29
  Language Requirement ................................ 29
Residence Requirement .................................. 29
  Admission to Candidacy ................................. 29
Registration for Course 600 and Continuous Registration . 29
Dissertation ............................................ 29
  Time Limit ........................................ 30

Feas and Financial Assistance ............................ 30
Residency Classification ................................ 30
University Fees ......................................... 30
  Application Fee ..................................... 30
  VOLXpress ........................................ 30
University Program and Services Fee .................... 30
Technology Fee ......................................... 30
Facilities Fee .......................................... 31
Transportation Fee ....................................... 31
Special Course Fees ..................................... 31
  Graduation Fee ..................................... 31
  Fees for Courses Not Taken For Credit ............... 31
Late Registration Fee ................................... 31
Late Fee .............................................. 31
  Returned Check Fee .................................. 31
  Deferred Payment Fee ................................. 31
  Refunds .......................................... 31
  Refund/Charge of Fees for Withdrawal ............... 31
  Financial Aid Withdrawals (Repayments) .............. 31
  Refund/Charge of Fees for Dropped Courses .......... 31
  Waiver of Fees ..................................... 31
Graduate Student Employee Insurance ..................... 32
Student Health Insurance ................................ 32
VolCard ................................................. 32
Financial Assistance ..................................... 32
  Assistantships ...................................... 32
  Academic Common Market ............................. 32
  Fellowships ....................................... 32
  Employment ........................................ 32
Graduate Student Travel Award ............................ 32
Loans .................................................. 32
Veterans Benefits ...................................... 33

Special Federal and State Laws and University Policies . 33
### COLLEGE OF AGRICULTURAL SCIENCES AND NATURAL RESOURCES
- Agricultural and Extension Education Program ................................................. 37
- Department of Agricultural Economics .......................................................... 38
- Department of Animal Science ....................................................................... 39
- Department of Biosystems Engineering and Soil Science ............................... 40
- Department of Entomology and Plant Pathology ............................................. 44
- Department of Food Science and Technology .................................................. 45
- Department of Forestry, Wildlife and Fisheries ............................................... 46
- Department of Plant Sciences ........................................................................ 47

### COLLEGE OF ARCHITECTURE AND DESIGN
- Landscape Architecture Program ..................................................................... 51
- School of Architecture ....................................................................................... 54

### COLLEGE OF ARTS AND SCIENCES
- Department of Anthropology ........................................................................... 57
- School of Art ....................................................................................................... 59
- Department of Audiology and Speech Pathology ............................................. 60
- Department of Biochemistry and Cellular and Molecular Biology ............... 62
- Department of Chemistry ................................................................................ 63
- Department of Classics ..................................................................................... 64
- Department of Earth and Planetary Sciences ................................................... 64
- Department of Ecology and Evolutionary Biology ........................................... 65
- Department of English ...................................................................................... 66
- Department of Geography ................................................................................. 68
- Department of History ...................................................................................... 69
- Interdisciplinary Programs ................................................................................ 70
- Life Sciences (Interdepartmental) ..................................................................... 71
- Department of Mathematics ............................................................................ 72
- Department of Microbiology ............................................................................ 74
- Department of Modern Foreign Languages and Literatures ......................... 75
- School of Music ................................................................................................. 78
- Department of Philosophy ................................................................................ 79
- Department of Physics and Astronomy ............................................................. 80
- Department of Political Science ...................................................................... 81
- Department of Psychology ............................................................................... 84
- Department of Religious Studies ...................................................................... 86
- Department of Sociology .................................................................................. 86
- Department of Theatre ....................................................................................... 87

### COLLEGE OF BUSINESS ADMINISTRATION
- Department of Accounting and Information Management ......................... 95
- Department of Economics ................................................................................ 97
- Department of Finance ..................................................................................... 98
- Industrial and Organizational Psychology (Interdepartmental) ....................... 98
- Department of Management .......................................................................... 99
- Department of Marketing and Logistics ........................................................... 100
- Department of Statistics, Operations, and Management Science .................. 101

### COLLEGE OF COMMUNICATION AND INFORMATION
- School of Advertising and Public Relations .................................................... 107
- School of Communication Studies ................................................................ 107
- School of Information Sciences ....................................................................... 107
- School of Journalism and Electronic Media .................................................... 109

### COLLEGE OF EDUCATION, HEALTH, AND HUMAN SCIENCES
- Department of Child and Family Studies ......................................................... 112
- Department of Educational Psychology and Counseling ............................. 113
- Department of Exercise, Sport, and Leisure Studies ....................................... 121
- Department of Instructional Technology, Health, and Cultural Studies ......... 125
- Department of Nutrition .................................................................................. 129
- Department of Retail, Hospitality, and Tourism Management ....................... 131
- Department of Theory and Practice in Teacher Education ............................ 132

### COLLEGE OF ENGINEERING
- Department of Chemical and Biomolecular Engineering ............................. 141
- Department of Civil and Environmental Engineering ..................................... 142
- Department of Electrical Engineering and Computer Science ..................... 143
- Department of Industrial and Information Engineering ............................... 149
- Department of Materials Science and Engineering ........................................ 150
- Department of Mechanical, Aerospace, and Biomedical Engineering ........... 152
- Department of Nuclear Engineering ................................................................ 155

### COLLEGE OF LAW ......................................................................................... 157

### COLLEGE OF NURSING .............................................................................. 161

### COLLEGE OF SOCIAL WORK ..................................................................... 167

### INTERCOLLEGIATE
- Aviation Systems (UT Space Institute) ............................................................. 173
- Comparative and Experimental Medicine ....................................................... 174

### COURSES OF INSTRUCTION
- Accounting (009) ............................................................................................. 177
- Advertising (012) ............................................................................................. 178
- Aerospace Engineering (018) .......................................................................... 178
- Africana Studies (023) ...................................................................................... 179
- Agricultural and Extension Education (042) ................................................... 179
- Agricultural Economics (047) .......................................................................... 180
- Agriculture and Natural Resources (088) ....................................................... 181
- American Studies (099) .................................................................................. 181
- Animal Science (113) ....................................................................................... 181
- Anthropology (122) ......................................................................................... 182
- Architecture (133) ........................................................................................... 183
- Art (140) ............................................................................................................ 185
- Art Ceramics (135) ........................................................................................... 185
- Art Design/Graphic (136) ................................................................................. 185
- Art Drawing (137) ............................................................................................ 186
- Art Education (141) ........................................................................................ 186
- Art History (139) ............................................................................................ 186
- Art Media Arts (134) ....................................................................................... 187
- Art Painting (138) ............................................................................................ 187
- Art Printmaking (132) ..................................................................................... 187
- Art Sculpture (143) ........................................................................................ 188
- Asian Languages (144) ................................................................................... 188
- Asian Studies (145) ........................................................................................ 188
- Astronomy (150) .............................................................................................. 188
- Audiology and Speech Pathology (160) .......................................................... 188
- Aviation Systems (169) ................................................................................... 190
- Biochemistry and Cellular and Molecular Biology (188) .............................. 191
- Biomedical Engineering (192) ....................................................................... 192
- Biosystems Engineering (196) ...................................................................... 194
- Biosystems Engineering Technology (194) .................................................. 194
- Business Administration (205) ...................................................................... 195
- Chemical Engineering (226) .......................................................................... 196
- Chemistry (235) .............................................................................................. 197
- Child and Family Studies (245) ...................................................................... 198
- Chinese (249) ................................................................................................ 200
- Cinema Studies (251) ..................................................................................... 200
- Civil Engineering (254) .................................................................................. 200
<table>
<thead>
<tr>
<th>Department</th>
<th>Page</th>
</tr>
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<tbody>
<tr>
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Below is a list of all graduate degree programs offered at the University of Tennessee, Knoxville. A degree or certificate is awarded upon completion of a specified program of study in a major field. Degree titles are posted on transcripts and diplomas. Major titles are posted on transcripts. A formally approved subcomponent of a degree program is a concentration.

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<td>Natural Resource Economics</td>
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**College of Architecture and Design**

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<td>MArch</td>
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<td>MARCH</td>
<td>Track 2 (for students with first professional degree who wish to develop an area of specialization)</td>
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**College of Arts and Sciences**

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| Political Science | Planning | MSP | Environmental Planning  
| | | | Land Use Planning  
| | | | Political Science  
| | | | Public Administration  
| | | | Real Estate Development/Economic Development  
| | | | Transportation Planning  
| | | | Urban Design  
| | | MA |  
| | | PhD |  
| Public Administration | | MPA | Dual JD-MPA program available (with College of Law)  
| Psychology | Psychology | MA | Experimental Psychology  
| | | PhD | General Psychology  
| | Sociology | MA | Criminology  
| | | PhD | Environmental Sociology  
| | | | Political Economy  
| Theatre | Theatre | MFA | Acting  
| | | | Costume Design  
| | | | Dramaturgy  
| | | | Lighting Design  
| | | | Scene Design  

**College of Business Administration**

| Accounting and Information Management | Accounting | MAcc | Audit and Controls  
| Economics | Economics | MA | Taxation  
| | | PhD |  
| Management | Human Resource Management | MS |  
| Interdepartmental | Business Administration | MBA | Finance  
| | | | Logistics  
| | | | Marketing  
| | | | Operations Management  
| | | | Secondary Concentration  
| | | | Innovation and Entrepreneurship  
| | | | MBA Programs for Working Professionals Track  
| | | | Aerospace and Defense MBA  
| | | | Physician Executive MBA  
| | | | Professional MBA  
| | | | Executive MBA  
| | | PhD | Dual JD-MBA program available (with College of Law)  
| | | | Dual MS-MBA program available (with College of Education, Health, and Human Sciences and College of Engineering)  
| | | | Accounting  
| | | | Finance  
| | | | Human Resource Development  
| | | | Logistics  
| | | | Marketing  
| | | | Organizations and Strategy  
| | | | Statistics  
| Statistics, Operations and Management Science | Management Science | MS |  
| | | PhD |  
| | Statistics | MS | Industrial Statistics  
| | | PhD |  
| | | Graduate Certificate | Applied Statistical Strategies  

12
### College of Communication and Information

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<td>Business Transactions</td>
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<td>Dual JD-MBA program available (with College of Business Administration)</td>
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<td>Dual JD-MPA program available (with Department of Political Science in the College of Arts and Sciences)</td>
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### College of Nursing

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<td>Homeland Security Nursing</td>
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<td>Nursing Administration</td>
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### College of Social Work

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<td>Evidence-based Practice Across Systems</td>
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<td>Evidence-based Interpersonal Practice</td>
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### Intercollegiate

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<td></td>
<td>Comparative and Experimental Medicine</td>
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### GRADUATE DEGREE PROGRAMS

- Master of Accountancy
- Master of Architecture
- Master of Arts
- Master of Arts in Landscape Architecture
- Master of Business Administration
- Master of Fine Arts
- Master of Landscape Architecture
- Master of Mathematics
- Master of Music

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<tr>
<th>DEGREE</th>
<th>Major</th>
<th>Dual JD-MBA</th>
<th>Dual MS-MBA</th>
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<td>Master of Architecture</td>
<td>Master of Public Health</td>
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<td>Master of Arts</td>
<td>Master of Science</td>
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<tr>
<td>Master of Arts in Landscape Architecture</td>
<td>Master of Science in Landscape Architecture</td>
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<td>Master of Business Administration</td>
<td>Master of Science in Nursing</td>
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<td>Specialist in Education</td>
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<td>Master of Fine Arts</td>
<td>Master of Science in Planning</td>
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<td>Doctor of Audiology</td>
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<td>Master of Landscape Architecture</td>
<td>Master of Science in Social Work</td>
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<td>Doctor of Jurisprudence</td>
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<td>Master of Mathematics</td>
<td>Dual JD-MBA</td>
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### DEFINITION OF GRADUATE TERMS

- **Cognate** – A limited block of courses or hours required outside the unit in which the major is offered.
- **Concentration** – A collection of courses within a major that focuses on a particular subject area. The term concentration describes the nature of the set of courses.
- **Major** – The principal educational interest of a student as represented by one of the curricula prescribed by the various units at the University of Tennessee, Knoxville. The major specifies the minimum requirements for a degree.
- **Minor** – An area of interest secondary to the major that is represented by a specified set of hours and/or courses. Differs from concentration in that a minor is not a subdivision of the major.
- **Specialization** – A sub-collection of courses within a concentration that focuses on specific subject matter. The term “specialization” describes the nature of the set of courses.
- **Tool** – A limited block of courses or hours required to enhance research or methodological expertise.
- **Track** – A separate route leading to the same degree but with different requirements.
The University of Tennessee is the land-grant institution of the State of Tennessee with its main campus in Knoxville. UT is the state’s largest and most comprehensive institution and is a Carnegie One Research Extensive Institution. The University of Tennessee is accredited by the Commission on Colleges of the Southern Association of Colleges and Schools (1866 Southern Lane, Decatur, Georgia 30033-4097; telephone 404-679-4501) to award the bachelor’s, master’s and doctoral degrees.

A wide range of graduate programs leading to master’s and doctoral degrees is available. The university offers master’s programs in 83 fields, the Educational Specialist degree, research doctoral work in 53 fields, three professional programs, and 29 graduate certificate programs. More than 6,000 graduate and professional students are enrolled on and off campus under the tutelage of 1,500 faculty members.

Graduate programs bring together faculty and graduate students as a community of scholars with a common interest in creative work and advanced study. Programs are available to individuals desiring work toward the master’s and doctoral degrees or professional certification, those interested in continuing education for updating and broadening their knowledge, and those pursuing postdoctoral research. Serving the needs of students engaged full-time in intensive study and pursuit of a degree continues to be a major emphasis of the University of Tennessee, Knoxville’s, graduate effort. Increasingly the university employs a variety of modes, traditional and nontraditional, in offering quality programs designed to serve a diverse student clientele.

Graduate programs are administered by the Graduate Council; the Graduate School; administrators of the various graduate programs; the faculty; and the graduate student body.

The Graduate Council is composed of elected faculty representatives from each college, the Space Institute, and the Graduate Student Association. Ex-officio members include the Dean of the Graduate School, the Chair of the Research Council, the Dean of Libraries, the Dean of Continuing Education, the Director of the Center for International Education, and the administrative officer having primary responsibility for the graduate curriculum in each college or school.

The Graduate Council is responsible for standards of admission, retention and graduation, and for curricular matters in graduate programs; the development of interdisciplinary programs; approval of new graduate programs; approval of individuals to direct doctoral dissertation research; financial support of graduate students; and all other matters of educational policy pertaining to graduate programs. Standing committees include academic policy, appeals, credentials, curriculum, professional development, and the Graduate Dean’s Group.

The Graduate School, in conjunction with Enrollment Services, develops procedures to implement policies formulated by the council. Much of the day-to-day administration of graduate study is conducted by department heads or faculty advisors and committees responsible for particular programs. In addition to departmental units, numerous interdisciplinary programs, institutes and centers have been developed on campus and in locations throughout the state.

The graduate student body is composed of those persons admitted to graduate study upon recommendation of the academic unit, and who are currently enrolled in graduate programs. Graduate education has been conducted at the University of Tennessee, Knoxville, since 1821. The first master’s degree was awarded in 1827. Although a PhD degree was awarded in 1886 and in 1887, formal doctoral programs were not instituted until 1929 for biological sciences at Memphis and 1943 for chemistry on the Knoxville campus. A Committee on Graduate Study was appointed in 1904 and coordinated the graduate program until the Graduate Council was formed in 1949.

ADMISSION REQUIREMENTS

Admission to graduate study requires a bachelor’s degree with a satisfactory grade point average from a college or university accredited by the appropriate regional accrediting agency or foreign equivalent.

The Graduate Council requires a minimum grade point average of 2.70 out of a possible 4.00, or a 3.00 during the senior year of undergraduate study. Applicants with previous graduate work must have a grade point average of 3.00 on a 4.00 scale or equivalent on all graduate work. Many programs require a higher average. Applicants with work experience or who are entering graduate study after a number of years away from an educational institution, usually five years, will be given consideration with greater flexibility relative to GPA. An international student graduating from a United States institution must meet the same requirements as those for domestic students.
An applicant whose GPA falls between 2.50 and 2.70 may be admitted on probation, upon recommendation of an academic unit. The probationary status will be removed after completion of 9 or more hours of graduate credit with a minimum GPA of 3.00. Failure to maintain a 3.00 while in this status will result in dismissal. An international student may not be admitted on probation.

The stated criteria are the minimums. The actual averages required for admission may be higher, depending on the number and the qualifications of applicants.

When a student is admitted to graduate study prior to having received the baccalaureate degree, that degree must be awarded before the date of first registration in graduate courses.

The Office of Graduate and International Admissions must be notified of any change in the entering date after admission has been granted. Individual departments and colleges may have further restrictions on admission dates. For this information, students should contact the department they wish to enter. If a student does not enroll within one year after the requested admission, the application process must be repeated.

Enrollment in graduate programs is a privilege which may be withdrawn by the university, or any area of graduate study, if it is deemed necessary by the Dean of the Graduate School to safeguard the university’s standards.

Application Procedures

Anyone with a bachelor’s degree from a regionally accredited institution or foreign equivalent who wishes to take courses for graduate credit, whether or not the person desires to become a candidate for a degree, must submit a formal application for admission to graduate study or apply for transient status. No action is taken until a file is complete. The applicant will be notified by mail of the action taken.

To apply for admission, the following materials must be sent to Graduate and International Admissions.

- The completed Graduate Application for Admission (http://admissions.utk.edu/graduate).
- A $35 non-refundable application fee.
- One official transcript from all colleges and universities attended.
- Scores from Test of English as a Foreign Language (TOEFL) or the International English Language Testing System (IELTS) if native language is not English (refer to section on English Certification).

Additional departmental/program requirements may include:

- Departmental application. Contact the program office for forms.
- Reference letters or rating forms. All departmental forms should be sent to the college or department.
- Scores from the Graduate Record Examination (GRE) or Graduate Management Admission Test (GMAT).

To register for the IELTS, please contact IELTS at http://www.ielts.org.

To register for the GRE, GMAT and TOEFL please contact Educational Testing Service Princeton, New Jersey 08450
http://www.ets.org

The UT code is 1843. Test results reach the university in approximately three weeks.

All documents submitted become the property of the university and will not be returned. For international graduate student application procedures, see Admission of International Students.

Admission Classifications

Degree Admission

Admission to a degree program requires that a person meet the minimum admission requirements and any additional program requirements (see Admission Requirements). Refer to the appropriate department for specific requirements for admission to the degree program.

In addition to meeting the minimum requirements, applicants at the doctoral level must have demonstrated a potential for superior academic performance. Criteria considered are performance in prior undergraduate and/or graduate studies, achievement on graduate admission tests, letters of recommendation from professors familiar with the applicant’s capabilities, and other evidence of scholarly achievement.

A student must maintain a 3.00 grade point average to continue enrollment in a degree program (see Academic Standards). An applicant may not be admitted simultaneously to more than one degree program. Two or more applications cannot be considered concurrently. For admission to dual programs, applications are processed consecutively.

Non-Degree Admission

Applicants may apply for non-degree status who, for example:

- Need additional time to fulfill application requirements for a degree program.
- Do not wish to pursue a degree program.

Minimum requirements (see Admission Requirements) must be met for admission to non-degree status. Some departments do not permit non-degree students to register for graduate courses. A major must be declared if the intent is to seek an advanced degree. If no degree is desired, a major need not be declared. Students anticipating long-term enrollment as non-degree students are advised to apply as undergraduate students in non-degree status. Students holding a degree who are taking additional work as undergraduate non-degree students may be allowed to take 600-level courses for undergraduate credit with the approval of the instructor.

Before accumulating 15 hours of coursework in graduate non-degree status, the student must apply and be admitted to a specific degree program (see Revision of Admission Classification for procedures).

A maximum of 15 graduate hours may be taken in graduate non-degree status. If admitted into a degree program, no more than 15 graduate hours may be applied toward a graduate degree, if approved by the student’s committee. Courses applied toward any graduate degree must fall within the time limit specified for the degree.

Every graduate student must meet with an academic advisor at least once each semester to discuss his/her program. For non-degree students with a declared major, the advisor must be from the appropriate academic unit. If no advisor has been assigned, the department head or designee is the advisor. For a non-degree student who has no declared major, the Dean of the Graduate School or designee is the advisor.

A student must maintain a 3.00 grade point average to continue enrollment in non-degree status (see Academic Standards). Admission to non-degree status does not constitute admission to a degree program. The student who seeks to enter a degree program will be directed to the appropriate department. An international student on a student visa may not enroll in the non-degree status.

Graduate Certificate

Admission to a graduate certificate program requires that a person meet the minimum admission requirements and any additional program requirements (see Admission Requirements). Refer to the appropriate department for specific requirements for admission to the certificate program.

Admission to a graduate certificate program does not constitute admission to a degree program. To receive a graduate certificate, students must be admitted to a certificate program or a degree program.

Transient Admission

A student who is enrolled in good standing in a graduate degree program at another institution and who wishes to take courses for transfer to that institution may be admitted after sub-
mitting a completed Graduate Application for Admission, the $35 application fee, and a Transient Student Certification form 10 days prior to registration. Only one semester, or a maximum of 12 hours, of coursework can be taken in transient status. Necessary forms may be obtained from the Office of Graduate and International Admissions.

Postdoctoral Admission
Persons who hold an earned doctoral degree and desire to take graduate courses may be admitted in the postdoctoral status. A completed Graduate Application for Admission, the application fee, and confirmation of the doctorate are required for admission. Admission in the postdoctoral status does not constitute admission to a degree program. The student who seeks to enter a degree program must meet all admission requirements and be recommended by the program.

Admission of International Students
For admission to a graduate program, an international student must have an equivalent 4-year bachelor’s degree with at least a B average on all previous coursework and a B+ on all previous graduate work. On various grading scales, this corresponds to:

- 14 on a 20-point scale.
- 80.0 from Taiwanese institutions.
- 1st Class or Division from Indian institutions.
- Upper 2nd Class Honors on various British systems.

If graduating from a U.S. institution, the minimum is the same as that for domestic students (see Admission Requirements). Other grading systems are evaluated, upon receipt of transcripts, in accordance with standard recommendations. Many departments require a higher average than the minimum.

International students may apply for admission any semester, but normally enter the fall semester. The deadlines for submission of applications to the Office of Graduate and International Admissions are:

- Fall: 1 February
- Spring: 15 June
- Summer: 15 October

The Office of Graduate and International Admissions must be notified of any change in entering date after admission has been granted.

Individuals applying online must pay the application fee by credit card. The following items must be received before admission will be considered:

- A completed Graduate Application for Admission.
- A $35 non-refundable processing fee. Payment should be made in United States dollars by a cashier’s check, money order, or personal check payable to the University of Tennessee, Knoxville. If payment is by personal check, it must be drawn on a United States bank to be honored in United States currency. Checks drawn on overseas banks are not accepted. International money orders are suggested.
- Official or attested university records, with certified translations if the records are not in English (notarized copies are not accepted).
- Confirmation of degree(s). Confirmation must be received by the Office of Graduate and International Admissions at least 2 months prior to term of first enrollment.
- Certification of English proficiency. Refer to section on English Certification.
- Additional departmental/program requirements.
- Departmental application. Contact the program for forms.
- Reference letters or rating forms. All program forms should be sent to the college or department.
- Scores from the Graduate Record Examination (GRE) or Graduate Management Admission Test (GMAT).

Admission must be granted, and financial documentation and degree confirmation must be received prior to issuance of an I-20 or DS-2019 form needed to obtain a visa. The university will not issue these forms after the following dates:

- Fall: 15 May
- Spring: 1 October
- Summer: 15 February

An international student may not enroll as a non-degree student nor be on probation.

English Certification
Any person whose native language is not English must submit results of the Test of English as a Foreign Language (TOEFL) or the International English Language Testing System (IELTS). A minimum score of 213 on the computer-based test, 550 on the paper test, or 80 on the Internet-based test typically with a score of 20 on each of the sections of the test (reading, listening, writing, and speaking) is required for admission consideration. Some programs require higher scores. The score must be no more than two years old from the requested date of entry. Applicants who have received a degree from an accredited U.S. institution within the past two years are exempt from the TOEFL requirement.

All students whose native language is not English must take an English proficiency examination after arrival at the University of Tennessee, Knoxville. Refer to section on English Proficiency.

Fees for Sponsored International Students
An administrative management fee will be charged to sponsoring agencies of international students whose programs require special administrative or management services beyond those normally provided. Fees are $250 per semester and $100 per summer session.

Admission of Faculty and Staff Members
If admitted to graduate study, members of the faculty or staff located in Knoxville may take courses as graduate students. Faculty members of the University of Tennessee, Knoxville, or the Institute of Agriculture at the rank of assistant professor or above and members of the administrative staff at the university and the Institute of Agriculture will not normally be admitted to a PhD degree program at UT Knoxville. Exceptions may be granted on an individual basis upon petition to the Dean of the Graduate School. Petitioners must present their request in writing, providing adequate assurance that the residence requirement will be met and that there will be no conflict of academic or administrative interest. Written endorsements must be provided by the respective deans and department heads of the units in which members are employed and in which the doctoral degrees are to be pursued.

Readmission
A student who has not registered for graduate courses at the University of Tennessee, Knoxville, for three consecutive terms (including summer) must apply for readmission. A readmission application should be submitted to the Office of Graduate and International Admissions at least two weeks prior to the desired reentry date. A student who has attended another institution since enrollment at the University of Tennessee, Knoxville, must submit one official transcript showing all coursework and any degrees earned at that institution. The student will be notified when action has been taken by the department/program and the Office of Graduate and International Admissions. A student who is per-
mitted to enroll and is subsequently denied readmission will receive credit for courses completed successfully. Future registration will not be allowed until readmission is granted.

Revision of Admission Classification
A student who wishes to change a major program of study must complete a Request for Change of Graduate Program form, which can be obtained online or from the Office of Graduate and International Admissions. The form requires the signature of the head of the department in which admission was previously granted. No signature is needed if a student requests to change from non-degree status to a degree program or from one degree to another within the same department.

The student must be in good standing for a revision to be processed. Acceptance into a new degree program is contingent upon review and recommendation by that department. If the student is not accepted into the program requested, he/she remains in the former program. The results of each request for program change are communicated to the student by mail.

REGISTRATION AND ENROLLMENT

REQUIREMENTS

Graduate Credit
To earn graduate credit, a student must be admitted by the Dean of the Graduate School and enrolled in an appropriate status as a graduate student. The registration must reflect the desire for graduate credit, and the course must have been approved by the Graduate Council. Coursework taken in any other status is unacceptable for graduate credit and cannot be changed retroactively to graduate credit. Special privileges are accorded University of Tennessee seniors and professional students, as stated in the section on Undergraduates and Professional Students.

Courses numbered at the 500 level, as well as those 400-level courses approved for graduate credit, must be taught by faculty members who (1) meet the criteria of an assistant professor or above as defined in the Faculty Handbook and (2) have been designated by the department head as being appropriate. Graduate teaching associates are ineligible to teach courses approved for graduate credit.

Consistent with the accreditation requirements of the Southern Association of Colleges and Schools (SACS) that graduate curricula must be substantially different from undergraduate curricula, classes at the 400 level in which both graduate and undergraduate students are enrolled must be structured so as to reflect this distinction. That is, course requirements for graduate credit will be more rigorous and will exceed expectations for undergraduates. Graduate and undergraduate completion of the same course will not be considered equivalent. Petitions for retroactive changing of undergraduate to graduate credit will not be accepted.

Courses at the 600 level are taught by faculty who have been approved by the college or by departments, where the college has given them that responsibility. All departments/colleges have a statement of criteria used in eligibility to teach at the 600 level.

Undergraduate and Professional Students

University of Tennessee Seniors
Subject to approval by the Dean of the Graduate School, a senior at the University of Tennessee, Knoxville, who needs fewer than 30 semester hours to complete requirements for a bachelor’s degree and has at least a B average (3.00) may enroll in graduate courses for graduate credit, provided the combined total of undergraduate and graduate coursework does not exceed 15 credit hours per semester. Only students working toward a first bachelor’s degree are eligible. Students who have met all requirements for graduation are not eligible. Approval must be obtained each semester at the Graduate School. A maximum of 9 hours of graduate credit at the 400 and 500 level can be obtained in this status. Some departments do not permit seniors to register for graduate courses without prior permission.

Courses taken for graduate credit may not be used for both the baccalaureate and a graduate degree program except in the case of approved dual bachelor’s/master’s programs.

University of Tennessee Veterinary Medicine Students
A student in good standing in the College of Veterinary Medicine may enroll in the University of Tennessee, Knoxville, graduate courses under the following conditions:

- The student’s advisor must approve in advance the student’s enrollment in each course.
- The student may take a maximum of 10 semester hours of graduate courses during the Doctor of Veterinary Medicine program.
- Approval must be obtained each semester at registration through the Graduate School. The student’s progress is subject to review and approval each semester by the Associate Dean, College of Veterinary Medicine.

Courses taken for graduate credit may not be used toward both the Doctor of Veterinary Medicine degree and a graduate degree.

University of Tennessee Law Students
Subject to approval by the Dean of the Graduate School and the College of Law, a law student at the University of Tennessee, Knoxville, may enroll in graduate courses for graduate credit. Approval must be obtained each semester from the Graduate School. Courses taken for graduate credit may not be used toward both the Doctor of Jurisprudence degree and a graduate degree. Use of such courses toward the JD degree is subject to guidelines approved by the law faculty.

Law Courses
A graduate student may take up to 6 hours of law courses and apply them toward a graduate degree, upon approval of the College of Law and the student’s major professor. The graduate student must register for law courses during the registration period at the College of Law and request a Satisfactory/No Credit only grade. If the student earns a 2.0 or better, an S will be recorded on the transcript. Below 2.0, a No Credit will be recorded, and the course cannot be used toward meeting degree requirements. Grades for law courses will not be reflected in the cumulative grade point average, as law courses do not carry graduate credit.

Different rules apply to students enrolled in the Dual JD-MBA and JD-MPA programs. Grades must be earned according to the grading system of the respective colleges, e.g. numerical grades for law courses, letter grades for graduate courses. Refer to sections on business administration, political science, and law under Departments and Courses of Instruction for grades acceptable to meet degree requirements.

A student enrolled in the PhD in Business Administration program may use 8 semester hours or more of law courses for the supporting area via the arrangement described under Business Administration.

Graduate Certificate Programs
A graduate certificate may be earned by successful completion of a series of specific courses. A candidate for a graduate certificate program must be a fully admitted graduate student who has satisfactorily completed (minimum 3.00 grade point average) the minimum requirements for a certificate as described in the Graduate Catalog. The minimum requirements for the certificate programs are listed under the academic department offering the certificate. A candidate must be a graduate student in good standing and comply with all other applicable policies. Graduate certificate programs require a minimum of 12 semester credit hours taken at the University of Tennessee, Knoxville. Use of credits to fulfill requirements for a graduate degree will be at the discretion of the academic department.
To receive the certificate, students must submit a Completion of Certificate Program Form endorsed by the academic department to the Graduate School. Only those certificate programs that are officially approved by the Graduate Council will be posted on student transcripts. To receive a graduate certificate, students must be admitted to a certificate program or a degree program.

Senior or Disabled Citizens

Legislation gives Tennessee citizens who are 60 years of age or older, 30-year state retirees, or those who are totally disabled, the opportunity to attend credit and non-credit courses at the university at no charge on an audit, space available basis. Legal verification of any of these conditions is required for enrollment. Students who are 65 or over, or who are totally disabled, and who desire to receive university credit for their courses, may pay a reduced rate.

Auditors and Audited Courses

Persons who wish to attend certain classes regularly, without taking examinations or receiving grades or credit, may do so by completing a graduate application as a non-degree student, paying the application fee, registering as an auditor, and paying regular fees. Graduate students paying regular fees also are entitled to audit courses.

The names of all auditors properly registered will appear on the electronic grade rolls, but will be removed from the final grade report. No record of audited coursework will appear on the permanent record.

Persons may not attend class without being properly admitted to the university and registered in the class.

Courses in Non-Standard Format

The university offers a wide variety of short courses, workshops, and other courses in non-standard format for graduate credit. Minimum criteria acceptable for such credit are as follows.

- The number of contact hours should never be fewer than the equivalent of one hour per week during the term for each hour of credit awarded, i.e., 15 hours per semester hour.
- For every contact hour, there should be at least 2 hours of student preparation.
- For each hour of graduate credit under the semester system, there should be a minimum elapsed time of one week.

The workload in a short course of several weeks’ duration need not be distributed evenly. However, substantive and meaningful interaction between the faculty member and student should be maintained throughout. Graduate credit should not be awarded for courses considered inappropriate as part of a graduate degree program.

The Curriculum Committee of the Graduate Council monitors the policy. Each new course or change in a current course must be approved in both content and format.

Correspondence Study

No graduate credit is accepted at the University of Tennessee, Knoxville, for work done by correspondence study at any university.

Proficiency Examinations

A proficiency examination may be given in academic courses offered for graduate credit. Applications for proficiency examinations are available in the Office of the University Registrar, 209 Student Services Building. To be eligible, a student must be admitted to graduate study. The request for examination must be approved by the head of the department offering the course. A student applying for this privilege must present evidence to the department head that he/she has the knowledge and abilities expected of graduate students who have taken the same course. Upon passing the examination with a minimum grade of B, the student will receive graduate credit. A maximum of one-fourth of the total credit hours in a master’s degree program may be earned by this method, subject to approval by the student's graduate committee. A fee of $7 per credit hour must be paid before each examination. Proficiency examinations may not be used to raise the grade or change the credit in a course previously completed, nor may such an examination be repeated. Proficiency examinations taken at other institutions are not transferable.

English Proficiency

Applicants whose native language is not English must pass an English proficiency examination given by the university prior to initial registration. Students whose performance on the examination indicates a need for additional English study must enroll immediately for English 121 English Grammar Review for Non-Native Speakers or another course assigned by the English Department for undergraduate credit and pass with a grade of C or better. A student may not take more than 9 additional hours of coursework while enrolled in English 121. Students whose scores indicate that they are not prepared to enter English 121 will be referred to a program of intensive English study prior to enrolling in an academic program.

Applicants whose native language is not English must pass an oral test in English (the SPEAK Test) before they can be assigned to classroom duties in connection with their assistantships. The SPEAK Test is administered on campus as part of the programs offered by the Graduate School. Scores from the Test of Spoken English (TSE) may be accepted in place of the SPEAK Test.

Prerequisites

Graduate work in any program must be preceded by sufficient undergraduate work in the major and related areas to satisfy the department that the student can do graduate work successfully in the chosen field. Individual undergraduate records are examined and evaluated by the appropriate department before admission to a degree program is granted. Questions about program prerequisites should be addressed to the advisor.

Advisor/Major Professor

Every graduate student must have an advisor from the major department. This professor advises the student about courses, supervises the student's research, and facilitates communication within the major department, to other departments, and with the Dean of the Graduate School. The advisor must approve the student's program each semester. Many departments appoint a temporary advisor to direct the entering student's work during the period in which the student is becoming acquainted with the institution and determining the focus of research interests, and in which the department is forming a judgment concerning the student's promise as a scholar. As early as appropriate, the student requests a professor in the major department to serve as the advisor. This major professor and the student together select a graduate committee. The student is expected to maintain close consultation with the major professor and other members of the graduate committee with regard to progress in the program. Other responsibilities of the advisor/major professor are explained under individual programs.

Graduate Program Director

Each academic department or program has designated a tenured or tenure-track faculty member who is the director of graduate studies. This individual, with the assistance of the other graduate faculty in the department, is responsible for the administration of the graduate program(s) in the department and also serves as the contact person with the Graduate School.
**Registration**

Registration is required of all graduate students when using university facilities and/or faculty time. The minimum number of hours for registration is one. Registration allows use of services such as library checkout, laboratories, and recreation facilities not open to the public.

Information concerning registration is available at Circle Park Online (http://cpo.utk.edu) or in the Timetable of Classes each term. Registration is accomplished via the Web. During priority registration, a bill is mailed to the registrant. Payment is due by the deadline noted on the bill. A graduated late fee is assessed to any student who fails to register during priority registration. Additional information can be obtained from the Office of the University Registrar, (865) 974-2101.

Failure to pay tuition and fees before the deadline, as noted each semester on the bill (VolXpress statement), will result in cancellation of the schedule. Retroactive registration is not allowed.

Non-degree students in unrestricted programs may obtain permission to register from the Graduate School. Non-degree students with no declared major must obtain permission from the department/program head to register for courses in restricted fields.

**Conditional Registration**

Applicants who appear to meet the admission requirements for graduate study may be allowed to register for an initial term after submitting the Graduate Application for Admission form and application fee. Time is allowed to obtain transcripts and additional requirements for admission. Students who fail to gain admission within seven weeks after registration will not be permitted to register again until all admission requirements are met.

International students may not register conditionally.

**Registration for Use of Facilities**

Students using university facilities, services or faculty time, including summer term, must be registered. Normally, students are registered for coursework or thesis/dissertation credit. Students who are not taking coursework and are not yet eligible to register for thesis or dissertation hours, must register for course 502 (Use of Facilities) if they wish to have borrowing privileges in the University Libraries or to use computer labs, other labs, or other university resources.

**Change in Registration**

The permanent record will show all courses for which the student has registered except those audited and those from which the student has withdrawn on or before the “Drop Course without W” deadline.

Students who fail to attend the first class meeting without prior arrangement with the department may be dropped from the course to make space available to other students. Students have the responsibility to assure that they have been dropped. Otherwise, they may receive a grade of F in the course.

**Type of Change for Full Term Classes Fall/Spring**

<table>
<thead>
<tr>
<th>Type of Change</th>
<th>Deadline</th>
</tr>
</thead>
<tbody>
<tr>
<td>Add or Drop a Course without a W or Change credit/grading</td>
<td>Up to 10 days before classes begin</td>
</tr>
<tr>
<td>Drop Course with a W</td>
<td>Within 14 days of the first day of classes</td>
</tr>
</tbody>
</table>

The periods for add, drop, change of credit/grading for sessions within the full term, summer, and mini term are determined based on a percentage of the equivalent deadline within the full term. See Timetable of Classes each term for exact dates on the Circle Park Web site at http://cpo.utk.edu. Deadline dates will be moved to the next business day if the deadline falls on a holiday weekend, day, or fall/spring recess. Within the change of registration period, a student may change registration at Circle Park Online (http://cpo.utk.edu). If additional permission is necessary, a student must execute a change of registration at the Office of the University Registrar, with approval of the instructor, advisor, and the Graduate School. Total withdrawal from registration for a semester must be processed through the Office of the University Registrar.

**Course Loads**

The maximum load for a graduate student is 15 hours and 9 to 12 hours are considered a full load. For the summer term, graduate students may register for a maximum of 12 hours in an entire summer term or for a maximum of 6 hours in a five-week summer session. Students may enroll in only one course during a mini-term session.

Students holding a one-half time assistantship normally should enroll for 6-11 hours. A one-fourth time graduate assistant normally should take 9-13 hours. A student on a one-half time assistantship who takes 6 hours will be considered full time.

Registration for more than 15 hours during any semester, or for more than 12 hours in the summer term, is not permissible without prior approval. The academic advisor may allow registration of up to 18 hours during a semester if the student has achieved a cumulative grade point average of 3.60 or better in at least 9 hours of graduate work with no outstanding incompletes. No more than 12 hours are permissible in the summer term without prior approval.

**Grade Point Average and Grades**

A cumulative grade point average of 3.00 is required on all graduate coursework taken at the University of Tennessee, Knoxville, to remain in good standing and to receive any graduate degree or certificate from the university. All coursework taken for graduate credit is computed into the GPA.

<table>
<thead>
<tr>
<th>Grade</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>(4 quality points per semester hour) superior performance.</td>
</tr>
<tr>
<td>B+</td>
<td>(3.5 quality points per semester hour) better than satisfactory performance.</td>
</tr>
<tr>
<td>B</td>
<td>(3 quality points per semester hour) satisfactory performance.</td>
</tr>
<tr>
<td>C+</td>
<td>(2.5 quality points per semester hour) less than satisfactory performance.</td>
</tr>
<tr>
<td>C</td>
<td>(2 quality points per semester hour) performance well below the standard expected of graduate students.</td>
</tr>
<tr>
<td>D</td>
<td>(1 quality point per semester hour) clearly unsatisfactory performance and cannot be used to satisfy degree requirements.</td>
</tr>
<tr>
<td>F</td>
<td>(no quality points) extremely unsatisfactory performance and cannot be used to satisfy degree requirements.</td>
</tr>
<tr>
<td>I</td>
<td>(no quality points) a temporary grade indicating that the student has performed satisfactorily in the course but, due to unforeseen circumstances, has been unable to finish all requirements. An I is not given to enable a student to do additional work to raise a deficient grade. The instructor, in consultation with the student, decides the terms for the removal of the I, including the time limit for removal. If the I is not removed within one calendar year, the grade will be changed to an F. The course will not be counted in the cumulative grade point average until a final grade is assigned. No student may graduate with an I on the record.</td>
</tr>
</tbody>
</table>

S/NC (carries credit hours, but no quality points) S is equivalent to a grade of B or better, and NC means no credit earned. A grade of Satisfactory/No Credit is allowed only where indicated in the course description in the Graduate Catalog. The number of Satisfactory/No Credit courses in a student’s program is limited to one-fourth of the total credit hours required.
P/NP (carries credit hours, but no quality points) P indicates progress toward completion of a thesis or dissertation. NP indicates no progress or inadequate progress.

W (carries no credit hours or quality points) indicates that the student officially withdrew from the course.

The grading system available for a course is based on the level of the course. Courses numbered 100-499 are graded letter grade or Satisfactory/No Credit, except where noted otherwise in the catalog. Courses numbered 500-699 are graded letter grade only, except where the Graduate Catalog indicates Satisfactory/No Credit only or optional Satisfactory/No Credit or letter grade. Veterinary Medicine courses are letter grade only except where noted Satisfactory/No Credit only. Law courses are numeric except where noted otherwise. There are restrictions regarding the use of Satisfactory/No Credit graded courses, including the number of hours that may be used toward any degree program.

No graduate student may repeat a course for the purpose of raising a grade already received. A graduate student may not do additional work nor repeat an examination to raise a final grade. A change of grade may occur only in cases of arithmetic or clerical error. An instructor may not initiate a change of grade as a result of a reevaluation of the quality of the student's performance nor as a result of additional work performed by the student.

Refer to law courses under Registration and Enrollment Requirements and in the College of Law section of this catalog.

**Academic Standards**

Graduate education requires continuous evaluation of the student. This includes not only periodic objective evaluation, such as the cumulative grade point average, performance on comprehensive examinations, and acceptance of the thesis or dissertation, but also judgments by the faculty of the student's progress and potential. Continuation in a program is determined by consideration of all these elements by the faculty and the head of the academic unit.

The academic records of all graduate students are reviewed at the end of each semester, including the summer term. Graduate students must maintain a cumulative grade point average (GPA) of at least 3.00 on all graduate courses taken for a letter grade or A-F. Grades of S/NC, P/NP, and I, which have no numerical equivalent, are excluded from this computation.

Departments and programs may have requirements for continuation or graduation in addition to the minimum requirements set forth in this catalog for all graduate programs. It is the student's responsibility to be familiar with the special requirements of the department or program.

**Academic Probation**

Upon completion of 9 hours of graduate coursework, a graduate student will be placed on academic probation when his/her cumulative GPA falls below 3.00. A student will be allowed to continue graduate study in subsequent semesters if each semester's grade point average is 3.00 or greater. Upon achieving a cumulative GPA of 3.00, the student will be removed from probationary status.

**Dismissal**

If a student is on academic probation, the degree or non-degree status will be terminated by the Dean of the Graduate School if the student's semester GPA falls below 3.00 in a subsequent semester. When the particular circumstances are deemed to justify continuation, and upon recommendation of the appropriate academic department and approval of the Dean of the Graduate School, a student on probation whose semester GPA is below 3.00 may be allowed to continue on a semester-by-semester basis.

Dismissal of a graduate student by a department or program is accomplished by written notice to the student, with a copy to the Graduate School. In those cases where the department's requirements for continuation are more stringent than university requirements for graduate programs, the Dean of the Graduate School will evaluate the student's record to determine whether the student is eligible to apply for a change of status and register in another area of study. Registration for courses in a department from which a student has been dismissed will not be permitted, except by written authorization from that department.

**Academic Honesty**

Academic integrity is a responsibility of all members of the academic community. An honor statement is included on the application for admission and readmission. The applicant's signature acknowledges that adherence is confirmed. The honor statement declares

An essential feature of the University of Tennessee, Knoxville, is a commitment to maintaining an atmosphere of intellectual integrity and academic honesty. As a student of the university, I pledge that I will neither knowingly give nor receive any inappropriate assistance in academic work, thus affirming my own personal commitment to honor and integrity.

**Plagiarism**

Students shall not plagiarize. Plagiarism is using the intellectual property or product of someone else without giving proper credit. The undocumented use of someone else's words or ideas in any medium of communication (unless such information is recognized as common knowledge) is a serious offense subject to disciplinary action that may include failure in a course and/or dismissal from the university. Some examples of plagiarism are

- Using without proper documentation (quotation marks and a citation) written or spoken words, phrases, or sentences from any source.
- Summarizing without proper documentation (usually a citation) ideas from another source (unless such information is recognized as common knowledge).
- Borrowing facts, statistics, graphs, pictorial representations, or phrases without acknowledging the source (unless such information is recognized as common knowledge).
- Submitting work, either in whole or in part, created by a professional service and used without attribution (e.g., paper, speech, bibliography, or photograph).

Extreme caution should be exercised by students involved in collaborative research to avoid questions of plagiarism. If in doubt, students should check with the major professor and the Dean of the Graduate School about the project. Plagiarism will be investigated when suspected and prosecuted if established.

**Appeals Procedure**

The Graduate Council Appeal Procedure can be obtained at the Graduate School or at http://gradschool.utk.edu/GraduateCouncil/AdmPoli/appealprocedure.pdf. Normally, grievances should be handled first at the department level through the student's academic advisor, the graduate program director, or the department or program head. Further appeal may be made to the dean of the respective college, the Graduate Council through the Associate Dean of the Graduate School, and ultimately to the Dean of the Graduate School.

Appeals may involve the interpretation of and adherence to university, college, and department policies and procedures as they apply to graduate education and the issuance of grades based on specific allowable reasons stipulated in the Graduate Council Appeal Procedure.

Appeal procedures in regard to allegations of misconduct or academic dishonesty are presented in Hilltopics under "Disciplinary Regulations and Procedures." Students with grievances related to race, sex, color, religion, national origin, age, disability or veteran status should file a formal complaint with the Office of Equity and Diversity.
DEGREE PROGRAM REQUIREMENTS

A complete list of programs is found under the Graduate Degrees, Majors, and Certificate Programs Chart. For specific degree requirements, consult individual program descriptions. Department policies and procedures, which are specific to degree programs and exceed those in the Graduate Catalog, are provided in the Graduate Student Handbook available in each academic department.

The following are the Graduate Council’s minimum requirements for degree programs. Refer to the college and academic department for additional program requirements.

Minors

For the master’s degree at the University of Tennessee, Knoxville, a minor is defined as 6-12 semester hours in one field outside the major. Usually, the minor courses are within a single teaching discipline that also offers a major.

Four interdisciplinary minors are available: computational science, statistics, and gerontology at both the master’s and doctoral levels, and environmental policy at the master’s level only.

The minor area must be approved by the major and minor academic units and a member from the minor unit must serve on the graduate committee.

Transfer Credits

Courses taken at another institution may be considered for transfer into a master’s or EdS program as determined by the committee and approved by the Dean of the Graduate School. At the doctoral level, courses are not officially transferred although they may be used to meet degree requirements. Where a requirement has been met through coursework in another program, the student may petition the academic unit for a waiver of the requirement at the doctoral level. Official transcripts must be sent directly to the Graduate School from all institutions previously attended before any credit will be considered.

To be transferred into a master’s or EdS program at the University of Tennessee, Knoxville, a course must
• Be taken for graduate credit.
• Carry a grade of B or better.
• Be a part of a graduate program in which the student had a B average.
• Not have been used for a previous degree.
• Be approved by the student’s graduate committee and the Dean of the Graduate School on the Admission to Candidacy form.

Courses transferred to any graduate program will not affect the minimum residence requirements for the program, nor will they be counted in determining the student’s grade point average. Credits transferred from universities outside the University of Tennessee system cannot be used to meet the thesis or dissertation requirements or 600-level coursework requirements. Credit for extension courses taken from other institutions is not transferable, nor is credit for any course taken at an unaccredited institution.

Master’s Degree

A majority of the total hours required for a master’s degree must be taken at the University of Tennessee, Knoxville. Transferred courses must have been completed within the six-year period prior to receipt of the degree. The courses must be listed on the Admission to Candidacy form and will be placed on the student’s university transcript after admission to candidacy.

Doctoral Degree

Coursework taken prior to admission to a doctoral program may be used toward the degree, as determined by the student’s doctoral committee. Although the courses are used as part of the requirements toward the degree and are listed on the admission to candidacy, they are not officially transfer courses and are not placed on the student’s university transcript.

Theses and Dissertations

All theses and dissertations are submitted in electronic format to the Thesis/Dissertation Consultant in the Graduate School for examination. The consultant will review the material and assure that it is appropriately presented, free of technical errors in format, and reflects credit upon graduate education at the University of Tennessee, Knoxville. If the thesis or dissertation is not accepted, the student must make corrections and resubmit the material.

The student, major professor and committee share responsibility for the accuracy and professionalism of the final product of the student’s research. The student should confer with the Thesis/Dissertation Consultant regarding problems and questions in advance of preparing the final copy. The Guide to the Preparation of Theses and Dissertations (available on the Graduate School Web site) provides the correct format for theses or dissertations. Workshops are held periodically throughout the academic year. The date for each workshop is announced on the Graduate School Web site.

Foreign Language

The thesis/dissertation normally should be written in English. Under exceptional circumstances, another language may be used if prior approval is obtained from the Dean of the Graduate School. A request to write in a language other than English should be submitted to the Dean of the Graduate School by the student’s thesis committee, with endorsement by the department head and dean of the college, prior to Admission to Candidacy for the degree sought. The request should include a proposal and justification for the exception. In all cases, one thesis/dissertation abstract must be written in English.

Classified Research

A basic principle in graduate education is that theses and dissertations produced by graduate students will be published and made available to other researchers in the field. When a graduate student is involved in classified or proprietary research, and such research is intended to lead toward a thesis or dissertation, prior approval should be secured from the department head and dean, and from the Dean of the Graduate School. Should the research become classified in the course of a project, these same persons should be notified immediately so that proper procedures can be assured. Failure to comply with these requirements may lead to rejection of a thesis or dissertation manuscript.

Dissemination of Final Copies

Copies approved for final submission will be sent to the University Libraries after conferral of the graduate degree. A student must, as a condition of a degree award, grant royalty-free permission to the university to reproduce and publicly distribute, including by electronic and digital technologies now known or developed in the future, on a non-commercial basis, copies of the thesis or dissertation. Copies approved for final submission will be catalogued and placed on the ETD Web site (http://etd.utk.edu). At this time, the electronic copies will be publicly distributed.

Graduation

A student planning to graduate must submit an application for graduation no later than the last day of classes of the term prior to the term he/she intends to graduate. The graduation application begins the final checking of degree requirements and is used to order the diploma. If the student does not graduate that term, a new graduation application must be submitted for the appropriate term. The form is submitted to the Graduate School. Deadlines and steps to graduation are available on the Graduate
been completed and a program of study has been approved. Action usually connotes that all prerequisites to admission have been met. Satisfactory progress has been made toward a degree. This action usually connotes that all prerequisites to admission have been completed and a program of study has been approved.

Master's Degree

The master's degree is evidence of successful completion of a body of coursework, advanced understanding, and the ability to apply knowledge within a major field. As part of a master's degree, and in addition to a final comprehensive examination, a culminating (capstone) experience is expected. Examples of culminating experiences include an advanced seminar, exhibit, independent project, integrated case study or simulation, internship, practicum, recital or thesis. Through this experience, the student will demonstrate skills associated with the particular degree program, such as applied performance, critical analysis, organization and writing.

Master's degree programs are available with thesis and non-thesis options. These programs require 30 or more graduate hours of coursework. In addition to the Master of Arts and Master of Science degrees, other degrees are offered, including the Master of Accountancy, Master of Architecture, Master of Arts in Landscape Architecture, Master of Business Administration, Master of Fine Arts, Master of Landscape Architecture, Master of Mathematics, Master of Music, Master of Public Administration, Master of Public Health, Master of Science in Landscape Architecture, Master of Science in Nursing, Master of Science in Planning, and Master of Science in Social Work.

Course Requirements

A candidate for a master's degree must complete a minimum of 30 hours of graduate credit in courses approved by the student's master's committee. In thesis programs, 6 semester hours of credit in the major (9-12 in some approved programs) must be earned in course 500 while the student is preparing the thesis. Hours applied to the master's degree may be entirely from one major subject or may be distributed to include one or two minor areas. In a 30-hour program, the major subject must include at least 12 hours of graduate coursework, exclusive of course 500, and a minor must include not fewer than 6, nor more than 12 hours of graduate credit. At least two-thirds of the minimum required hours in a master's degree program must be taken in courses numbered at or above the 500 level. Only 6 thesis hours may be counted toward this requirement.

For coursework taken at other institutions, refer to section on Transfer Credits.

Second Master's Degree

For a second master's degree, the student must have fulfilled all major requirements applicable to the first master's degree, including the thesis, if appropriate. Coursework applied to one master's degree program may not be applied toward a second.

Master's Committee

A committee composed of the major professor and at least two other faculty members, all at the rank of assistant professor or above, should be formed as early as possible in a student's program, and must be formed by the time a student applies for admission to candidacy (refer to Advisor/Major Professor). The responsibility of this committee is to assist the student in planning a program of study and carrying out research, and to assure fulfillment of the degree requirements. If the student has a minor, one member of the committee must be from the minor department.

Admission to Candidacy

Admission to candidacy indicates agreement that the student has demonstrated ability to do acceptable graduate work and that satisfactory progress has been made toward a degree. This action usually connotes that all prerequisites to admission have been completed and a program of study has been approved.

The application for the master's degree is made as soon as possible after the student has completed any prerequisite courses and 9 hours of graduate coursework with a 3.00 average or higher in all graduate work. The Admission to Candidacy form must be signed by the student’s committee and all courses to be used for the degree must be listed, including transfer coursework. The student must submit this form to the Graduate School no later than the last day of classes of the semester preceding the semester in which he/she plans to graduate.

Thesis Registration

A student must be registered for course 500 each semester during work on the thesis, including a minimum of 3 hours the semester in which the thesis is accepted by the Graduate School. Six hours of 500 are required for the thesis option. After receiving the master's degree, a student is no longer permitted to register for Thesis 500.

Thesis

The thesis represents the culmination of an original research project completed by the student. It must be prepared according to the most recent Guide to the Preparation of Theses and Dissertations, available at http://web.utk.edu/~thesis. An electronic copy of the thesis must be accompanied by one approval sheet, signed by the members of the master’s committee. The approval sheet certifies that the committee members have examined the final copy of the thesis and have found that its form and content are satisfactory.

Final Examination for Thesis and Problems in Lieu of Thesis

A candidate presenting a thesis or problems in lieu of thesis must pass a final comprehensive oral (or oral and written) examination on all work offered for the degree. The examination, which is concerned with coursework and the thesis or problems, measures the candidate's ability to integrate material in the major and related fields, including the work presented in the thesis or problems. The final draft of the thesis must be distributed to all committee members at least two weeks prior to the date of the final examination. Except with prior approval from the Dean of the Graduate School, the examination must be given in university-approved facilities. This examination should be scheduled through the academic department at least two weeks prior to the examination. This examination must be held at least two weeks before the final date for acceptance and approval of thesis by the Graduate School on behalf of the Graduate Council. The major professor must submit the results of the defense by the thesis deadline. In the case of failure, the candidate may not apply for re-examination until the following semester. The result of the second examination is final.

Final Examination for Non-Thesis Students

Each non-thesis student must pass a final comprehensive written examination. A department may require an additional oral examination. The examination is not merely a test over course work, but a measure of the student's ability to integrate material in the major and related fields. Except with prior approval from the Dean of the Graduate School, the examination must be given in university-approved facilities. It should be scheduled through the academic department at least two weeks prior to the examination. Students taking the final examination but not otherwise using university facilities may pay a fee equal to one hour of graduate credit instead of registering. In the case of failure, the candidate may not apply for re-examination until the following semester. The result of the second examination is final.

Time Limit

Candidates have six calendar years to complete the degree, starting at the beginning of the semester of the first course counted toward the degree. Students who change degree programs during this six-year period may be granted an extension after review and approval by the Dean of the Graduate School. In any event, courses used toward a master's degree must have been taken within six calendar years of graduation.
Specialist in Education Degree

The Specialist in Education (EdS) degree is offered with a major in educational administration, instructional technology and educational studies, school counseling, school psychology, and teacher education.

Admission to the Specialist in Education program requires acceptance by the Office of Graduate and International Admissions and review and acceptance by the department or area in which the student is majoring. It is recommended that students who apply for the EdS have at least one year of related work experience. Additional information on admission requirements can be obtained from academic units offering the degree.

Course Requirements

The student’s program involves a minimum of four semesters of study totaling not fewer than 60 semester hours of graduate credit beyond the baccalaureate degree. A minimum of 6 hours is required outside the concentration.

A student admitted to the program with a master’s degree, or with acceptable work beyond the master’s degree, may have program requirements modified upon recommendation of the student’s committee. However, no modifications will be permitted in examination and research requirements, or in the minimum 6 graduate hours required outside the concentration.

All prior coursework accepted toward the degree must be related to the student’s program objectives. A maximum of 6 hours beyond the master’s degree may be transferred from another institution to a Specialist in Education program (refer to section on Transfer Credits).

Courses numbered at the 400 level required for certification through the University of Tennessee, Knoxville, may not be taken for graduate credit and used as coursework in the major. At least one-half of the last 30 semester hours of work, exclusive of thesis courses, must be in 500- or 600-level courses.

Specialist in Education Committee

A committee of at least three faculty members is assigned to each student. A minimum of two members of this committee must represent the unit or major area. Its responsibilities include formulating the student’s program of coursework, supervising progress, recommending admission to candidacy, directing research, and coordinating the qualifying and final examinations.

Admission To Candidacy

Admission to Candidacy indicates agreement that the student has demonstrated ability to do acceptable graduate work and that satisfactory progress has been made toward a degree. This action usually connotes that all prerequisites to admission have been completed and a program of study has been approved.

The Admission to Candidacy form must be signed by the student’s committee and all courses to be used for the degree must be listed, including transfer coursework. This form is submitted to the Graduate School before the student has completed 15 hours of coursework in the Specialist in Education program. A qualifying examination may be required for admission to candidacy if the student has a master’s degree earned six years or more prior to admission to the program. This examination may be written and/or oral.

Research Requirements

See the program descriptions of individual departments for list of thesis, problems in lieu of thesis, and non-thesis options. Some departments offer only a thesis program.

In the non-thesis program, a candidate will study research methods and findings and will demonstrate skill in adapting them to professional needs as defined by the major department.

In the thesis program, or problems in lieu of thesis, 6 hours of research credit (518 or 503) must be earned in preparation of an acceptable piece of work. The student must continue to register for thesis or problems while working on the project, including the semester it is accepted by the Graduate School on behalf of the Graduate Council. The thesis must be prepared according to the most recent Guide to the Preparation of Theses and Dissertations (http://web.utk.edu/~thesis), and approved by the student’s committee prior to submission to the Graduate School for final approval and acceptance.

Final Examination

A candidate presenting a thesis, or problems in lieu of thesis, must pass an oral examination covering the student’s research and program of study. A non-thesis student must pass a written, or written and oral examination, on all work offered for the degree. The examination is not merely a test over coursework, but a demonstration of the candidate’s ability to integrate materials in the major and related fields. Each examination should be scheduled through the academic department at least two weeks prior to the examination and will be conducted in university-approved facilities by the student’s committee. If failure, the candidate may not be reexamined until the following semester. The result of the second examination is final.

Time Limit

Candidates have six calendar years from the time of entry into the last 30 hours of their degree programs to complete the Specialist in Education degree.

Doctoral Degree

For a list of doctoral programs available, see the Graduate Degrees, Majors, and Certificate Programs chart. For specific degree requirements, consult individual program descriptions listed in this catalog.

The doctoral degree is evidence of exceptional scholarly attainment and demonstrated capacity in original investigation. Requirements for the degree, therefore, include courses, examinations, and a period of resident study, as well as arrangements which guarantee sustained, systematic study and superior competency in a particular field.

Program of Study

The student’s program of study is subject to Graduate Council policies and individual program requirements. The program of study as listed by the student on the Admission to Candidacy form must be approved by the doctoral committee. Doctoral programs include a major field or area of concentration and, frequently, one or more cognate fields. Cognate fields are defined as a minimum of 6 semester hours of graduate coursework in a given area outside the student’s major field.

A candidate for a doctoral degree must complete a minimum of 24 hours of graduate coursework beyond the master’s degree, which is a prerequisite for entry into most doctoral programs. If the doctoral program does not require a master’s degree, the candidate must complete a minimum of 48 hours of graduate coursework beyond the baccalaureate degree. A minimum of 12 of the 24 hours, or 30 of the 48 hours, must be graded A-F. A minimum of 6 hours of the student’s coursework must be taken in University of Tennessee courses at the 600 level, exclusive of dissertation.

In addition, 24 hours of course 600 Doctoral Research and Dissertation are required (see Registration for Course 600 and Continuous Registration).

For coursework taken prior to admission to the doctoral program, refer to section on Transfer Credits.

Doctoral Committee

The major professor directs the student’s dissertation research and chairs the dissertation committee. The student and the major professor identify a doctoral committee composed of at least four faculty members holding the rank of assistant professor or above, three of whom, including the chair, must be approved by the Graduate Council to direct doctoral research. At least one member must be from an academic unit other than that of the student’s major field. Students are encouraged where appropriate to seek a fifth member in the field of specialization from outside the university to serve on their dissertation committee. This committee is nominated by the department head or college dean and approved by the Dean of the Graduate School.

A doctoral student should begin to form the committee during
the first year of study. Subject to Graduate Council policies and individual program requirements, the committee must approve all coursework applied toward the degree, certify the student’s mastery of the major field and any cognate fields, assist the student in conducting research, and recommend the dissertation for approval and acceptance by the Graduate School.

**Doctoral Examinations**

Departments may, at their option, administer diagnostic and/or qualifying examinations in the early stages of the student’s doctoral program. Successful completion of a comprehensive examination and a defense of dissertation is required for all doctoral degrees. Registration is required the term in which examinations are taken.

**DIAGNOSTIC EXAMINATION**

A student on admission to a doctoral program may be given a written and/or oral diagnostic examination to help determine the student’s level of preparation, areas of strengths and weaknesses, and general background. The diagnostic examination is designed to aid in the selection of courses and to determine the student’s preparation to continue doctoral studies at the University of Tennessee, Knoxville.

**QUALIFYING EXAMINATION**

A written and/or oral qualifying examination may be given near the end of the student’s first year in the doctoral program. Qualifying examinations are designed to test the student’s progress, general knowledge of fundamentals of the field, and fitness to continue with the more specialized aspects of the doctoral program.

**COMPREHENSIVE EXAMINATION**

The comprehensive examination (or the final part of this examination, when parts are given at different times) is normally taken when the doctoral student has completed all or nearly all prescribed courses. Thus, its successful completion indicates that, in the judgment of the faculty, the doctoral student can think analytically and creatively, has a comprehensive knowledge of the field and the specialty, knows how to use academic resources, and is deemed capable of completing the dissertation. The comprehensive examination must be passed prior to admission to candidacy. A written examination is required, and an oral examination is encouraged. The faculty of the graduate program and/or the student’s doctoral committee will determine the content, nature, and timing of the comprehensive examination and certify its successful completion. The department or committee may at its discretion subdivide the examination, administering portions of the examination at several times during the student’s course of study. Students should review carefully the written statement from each doctoral degree program which details the timing, areas covered, grading procedures, and provisions for repeating a failed examination.

**DEFENSE OF DISSERTATION EXAMINATION**

A doctoral candidate must pass an oral examination on the dissertation. The dissertation, in the form approved by the major professor, must be distributed to the committee at least two weeks before the examination. The examination must be scheduled through the Graduate School at least one week prior to the examination and must be conducted in university-approved facilities. The examination is announced publicly and is open to all faculty members. The defense of dissertation will be administered by all members of the doctoral committee after completion of the dissertation and all course requirements. This examination must be passed at least two weeks before the date of submission and acceptance of the dissertation by the Graduate School. The major professor must submit the results of the defense by the dissertation deadline.

**Language Requirement**

Candidates for the Doctor of Philosophy may be required to demonstrate a reading knowledge of at least one foreign language in which there exists a significant body of literature relevant to the major field of study. Please refer to the descriptions of individual programs. The doctoral committee will determine the specific language (or languages) required. When the student is prepared to take a language examination, he/she should complete an Application for Doctoral Language Examination at the Office of the University Registrar in accordance with the dates and times for the examinations published online.

Satisfactory completion (grade of B or better) of German 332 or French 302 may be substituted for a language examination.

Some programs may accept a computer language in lieu of a foreign language.

**Residence Requirement**

Residence is defined as full-time registration for a given semester on the campus where the program is located. The summer term is included in this period. During residence, it is expected that the student will be engaged in full-time on-campus study toward a graduate degree.

For the doctoral degree, a minimum of two consecutive semesters of residence is required. Individual doctoral programs may have additional residence requirements.

A statement as to how and during what period of time the residence requirement has been met will be presented with the Application for Admission to Candidacy along with signatures of approval from the major professor and the department head/program director. More information about the rationale for the residence requirement may be obtained from the Graduate Council report available on the Graduate School Web page.

**Admission to Candidacy**

Admission to candidacy indicates agreement that the student has demonstrated the ability to do acceptable graduate work and that satisfactory progress has been made toward a degree. This action usually connotes that all prerequisites to admission have been completed and a program of study has been approved.

A student may be admitted to candidacy for the doctoral degree after passing the comprehensive examination, fulfilling any language requirements (for Doctor of Philosophy), and maintaining at least a B average in all graduate coursework. Each student is responsible for filing the admission to candidacy form, which lists all courses to be used for the degree, including courses taken at the University of Tennessee, Knoxville, or at another institution prior to admission to the doctoral program, and is signed by the doctoral committee. Admission to candidacy must be applied for and approved by the Graduate School at least one full semester prior to the date the degree is to be conferred.

**Registration for Course 600 and Continuous Registration**

Course 600 is reserved for doctoral research and dissertation hours. Initial registration for 600 should be determined by each department and generally corresponds to the time at which a student begins work actively on dissertation research. From this time on, students are required to register continuously for at least 3 hours of 600 each semester, including summer term. A minimum total of 24 hours of course 600 is required.

A student who will not be using faculty services and/or university facilities for a period of time may request leaves of absence from dissertation research up to a maximum of six terms (including summer terms). The request, approved by the major professor, will be submitted by the student and filed in the Graduate School.

**Dissertation**

The dissertation represents the culmination of an original major research project completed by the student. The organization, method of presentation, and subject matter of the dissertation are important in conveying to others the results of such research.

A student should be registered for the number of dissertation hours representing the fraction of effort devoted to this phase of the candidate’s program. An electronic copy of the dissertation (prepared according to the regulations in the most recent Guide to the Preparation of Theses and Dissertations, available at http://web.utk.edu/~thesis) must be submitted to and accepted by
the Graduate School on behalf of the Graduate Council. Each dissertation must be accompanied by one approval sheet, signed by all members of the doctoral committee. The approval sheet reflects the final format for submission. The approval sheet certifies to the Graduate School that the committee members have examined the final copy and found that its form and content demonstrate scholarly excellence. Doctoral Dissertation Agreement Form, Survey of Earned Doctorates, and Abstract form are also submitted at this time. The student should check with the department head concerning additional required copies of the dissertation.

**Time Limit**

Comprehensive examinations must be taken within five years, and all requirements must be completed within eight years, from the time of a student’s first enrollment in a doctoral degree program.

**FEES AND FINANCIAL ASSISTANCE**

**Residency Classification for the Purpose of Paying University Fees and for Admission Purposes**

Initial residency classification is determined by an admissions processor from information included on the University of Tennessee Graduate Application for Admission. Notice of classification is sent at the time the applicant is notified of admission. Students who would like their residency classification reconsidered may submit an appeal to the residency classifier listed at http://registrar.tennessee.edu/. The application for reclassification with supporting documentation must be filed no later than the last day of registration in order to have the reclassification effective for the semester. Classification will be determined and the applicant will be notified by mail. Additional information regarding the State of Tennessee regulations for classification may be found at the Office of the University Registrar Web site http://registrar.tennessee.edu/.

**University Fees**

For the most current listing of tuition and fees at the University of Tennessee, Knoxville, see http://www.utk.edu/bursar.

University fees and other charges are determined by the Board of Trustees and are subject to change without notice. All student fees are due in advance.

All charges and refunds will be made to the nearest even dollar. All charges are subject to subsequent audit and verification. The university reserves the right to correct any error by appropriate additional charges or refunds.

All students must confirm their attendance by making the minimum payment; signing a Confirmation of Attendance form; or setting their Confirmation of Attendance on the Web at cpo.utk.edu. Statements are mailed to each student's billing address. Information about the State of Tennessee regulations for classification may be found at the Office of the University Registrar Web site http://registrar.tennessee.edu/.

Web site, with the total charge not to exceed the regular maintenance fee for in-state students or the maintenance fee plus tuition for out-of-state students.

All students both in and out-of-state are required to pay the established maintenance fee. In addition, tuition is required of all students who are classified as non-residents for fee assessment purposes.

**Application Fee**

Each graduate application for admission must be accompanied by a non-refundable fee of $35 before it will be processed [fee not required if (1) former University of Tennessee graduate student; (2) paid to the University of Tennessee Graduate Admissions within the previous 12 months; or (3) paid and attended graduate school within the University of Tennessee System].

If a student applies but does not enter graduate school within twelve months after date of requested admission, the file will be destroyed, and it will be necessary to resubmit the application fee and a new application. This fee is not refundable.

**VOLXpress**

VOLXpress is the University of Tennessee, Knoxville’s, centralized accounting system. Students may pay their fees via the mail, in person, or on the Web at cpo.utk.edu. Through VOLXpress, statements are mailed to each student’s billing address that include class schedules, current tuition and fees, fee waiver information, fines and past-due amounts, pending financial aid that can be credited toward fees, any excess funds from scholarships and/or loans, and choices about how to receive them.

VOLXpress is a convenient method for students to take care of business from home. Students who register and pay early will receive the greatest benefit if the payment deadlines are observed.

Each student must submit any change of address on the Web at cpo.utk.edu to ensure timely receipt of a VOLXpress Statement. Failure to receive a statement does not relieve the student of their obligation to pay on or before the due date.

**University Program and Services Fee**

http://www.utk.edu/bursar/volxfees.html

The purpose of the University Programs and Services Fee (UPSF) is to provide non-instructional facilities and programs of an educational, cultural, social, recreational, and service nature for the University of Tennessee, Knoxville, students. The fee has three components which include program, health, and capital. The health portion of the fee is included only with the payment of the full UPSF (refer to Student Health Insurance and Student Health Services for additional information).

Students enrolled in 9 or more hours are assessed the full-time University Programs and Services Fee. Students enrolled for less than 9 hours are assessed a pro-rated fee based on the highest number of hours for which the student is enrolled at any time during the semester. The fee is non-refundable.

Graduate, teaching, and research assistants, teaching associates, and fellowship students must pay the University Programs and Services Fee even if they have a waiver of fees (tuition and/or maintenance).

Any part-time student (minimum of 3 hours) may elect to pay the health portion of the UPSF in addition to the standard pro-rated assessment. Part-time students enrolled in 6 or more hours may elect to pay the full-time UPSF instead of the standard pro-rated assessment.

**Technology Fee**

The purpose of the Technology Fee is to provide all students with improved access to the technological infrastructure, resources, and services at the University of Tennessee, Knoxville.

Graduate, teaching, and research assistants, teaching associates, and fellowship students, who may have a waiver of fees (tuition and/or maintenance), must pay the appropriate Technology Fee.

The Technology Fee is mandatory and may be refunded on the same percentage scale as maintenance and tuition charges.
Facilities Fee
The Facilities Fee is used to provide students with upgraded classroom facilities, expand information technology into the classroom, and assist in funding a backlog of campus and classroom projects that will enhance the university's facilities.

Transportation Fee
The Transportation Fee is a mandatory fee assessed to all students enrolled in credit and audit courses. The fee is used to provide students with a convenient method of movement around campus. The fee will subsidize the costs associated with the new comprehensive campus transit system.

Special Course Fees
Academic areas, such as art, biology, chemistry, engineering, music, and physical education, charge fees for certain courses. Refunds on these fees are determined by the department or on the same percentage as maintenance and tuition.

Graduation Fee
Master's Degree Candidates ........................................ $30
Doctoral Degree Candidates .......................... $75

The graduation fee is non-refundable and is valid for two semesters after the semester in which it is paid. There are no additional charges for the diploma. Additional or duplicate diplomas may be ordered through the Office of the University Registrar, Graduation office. Contact the Office of the University Registrar for the application and cost of ordering an additional or duplicate diploma.

Fees for Courses Not Taken for Credit
Fees for courses audited are the same as for courses taken for credit. For fee purposes, courses listed for 0 credit hours are considered as 1-hour courses.

Late Registration Fee
Assessed to students who register during Late Registration (including those who were canceled during Priority Registration). Payment of fees or a Confirmation of Attendance form must be turned in to one of the Bursar's Office locations by the Late Registration payment due date. This due date will be published on the Bursar's Office Web site. The Late Registration Fee is non-refundable.

See the Bursar's Office Web site for the dates and fees to be assessed during Late Registration.

Late Fee
VOLXpress (fee) accounts which have a balance one month prior to the end of a term will be assessed a late fee. The account balance must be paid in order to access registration services, receive a transcript, grades, or a diploma.

Returned Check Fee
All checks are deposited the day they are received. A $30 service charge will be assessed when checks fail to clear the bank on which they are drawn. Returned checks will not be re-deposited. Cash or certified funds are required for payment of the returned check and service charges.

Any student who does not respond within two weeks from the date of the first notice may be assessed an additional $10 Service Charge.

Failure to clear returned checks will result in the forfeiture of all university services, including the receipt of grades, transcripts, schedule of classes and check cashing/writing services. Failure to pay may also result in additional late fees, collection costs and reasonable attorney fees.

Deferred Payment Fee
Students in good financial standing will be offered a deferment of up to 50% of the total charges on their VOLXpress statement. All financial aid must be applied toward fees before a deferment will be considered. A deferred payment service fee is assessed when any portion of tuition, fees, and other charges are deferred with the approval of the Bursar's Office. An additional late payment fee will be assessed on each installment not paid on or before the due date. Failure to receive a statement does not relieve students of their obligation to pay on or before the due date. An additional late fee will be assessed if fees are not paid by one month prior to the end of the term.

Refunds
Refunds are defined as the portion of maintenance and/or tuition and university housing/meal charges due as a rebate when a student withdraws or drops a portion of class hours. Refunds are also processed as a rebate on some fines/penalties paid such as parking fines, library fines, etc. Once a refund is determined to be appropriate, all amounts will be applied toward other outstanding fees/fines owed to the university at the time the refund is issued, including outstanding fees due on the Deferred Payment Plan. Any remaining refund balance will be refunded to the credit card charged or mailed to the student's billing address.

Refund/Charge of Fees for Withdrawal (Drop All Classes)
After payment of fees and/or a Confirmation of Attendance Form has been submitted by the student, withdrawal for the semester must be by official notification to the Office of the University Registrar, 209 Student Services Building. Failure to attend class does not automatically withdraw or drop a student from college or class.

The effective date of the withdrawal is the date the appropriate withdrawal office is notified by completion of the official withdrawal request form. The appropriate percentage of fees (maintenance and tuition, facility, transportation, and technology fees only) will be charged unless this action is completed by the close of the day before the first official day of classes for the semester. Failure to notify the appropriate withdrawal office promptly when withdrawing could result in a larger fee assessment. Withdrawal does not cancel fees and charges already incurred. All charges and refunds will be made to the nearest even dollar.

The drop/add procedure cannot be used to withdraw from school for the semester. See the Bursar's Office Web site for the dates and percentage charges for the semester in question.

Financial Aid Withdrawals (Repayments)
Repayments are defined as the portion of aid, received by a student after university direct charges have been paid by that aid, which must be repaid when a student withdraws or is dismissed. The amount of repayment is determined by the Refund/Charge percentages stated previously.

Refunds and repayment to the Title IV programs are determined according to the formula published in the current Federal Student Financial Aid Handbook. The Office of Financial Aid and Scholarships is responsible for calculating the amount of the refund and/or repayment and distributing the correct amount back to the financial aid program(s) according to the Refund/Repayment Allocation Policy.

Refund/Charge of Fees for Dropped Courses (Continue with a Reduced Course Load)
Students who drop courses and continue with a reduced load are eligible for a refund only if the sum of charges computed at the semester-hour rate for the hours continued, plus the percentage assessed for the hours dropped, results in an amount less than that paid. A course on a student’s schedule is officially dropped, and the drop becomes effective, on the date the change of registration form is processed or the date the drop was entered on cpo.utk.edu. Any refund due for dropped courses will be made after the drop deadline. See the Bursar’s Office Web site for the drop charge/percentage refund for the semester in question.

Waiver of Fees
Graduate assistants, teaching assistants and associates, research assistants, staff and others whose fees are billed, prepaid, waived, or partially waived must confirm their attendance by making payment or signing a Confirmation of Attendance Form by the due date as published on the Bursar’s Office Web site or their schedule will be canceled. If an appointment terminates during the term, the student owes the appropriate fees from the termination date until the end of the term.

Graduate students are not eligible for the University of Tennessee employee spouse/dependent discounts.
Graduate Student Employee Insurance

All graduate assistants, graduate teaching assistants or associates, and/or graduate research assistants who are employed at least 25% FTE will automatically be enrolled in the Graduate Student Employee Insurance Program. These students will have 100% of the premium paid by the university. The health insurance benefit applies to nine-month and twelve-month appointment terms. These students may elect to add spouse or dependent coverage at their own expense. If students already have insurance coverage through another insurance carrier, this policy functions as additional coverage.

The Student Health Clinic will manage the Graduate Student Employee Health Insurance Program.

Student Health Insurance

The university makes available, by contract with an insurance company, group health insurance expressly for students who do not have a graduate assistantship. The program is designed to supplement the care provided by the campus Student Health Service and provide basic benefits at low group premium rates. Priority emphasis is placed on hospitalization benefits, since in-patient care is not provided on campus. Students not otherwise covered are urged to avail themselves of this or comparable insurance, since paying for hospital care is the student’s responsibility.

Information about the insurance is mailed to the campus by the company to the student’s home, and participation is solicited. Enrollment in the plan (or alternative coverage) is mandatory for international students. Students may obtain applications from the Student Health Service. Except for international students, enrollment for insurance is not part of registration for classes. NOTE: The family health insurance policy should be carefully reviewed, since most family policies do not cover a dependent child after a given age, some as early as nineteen.

VolCard

The VolCard is issued to a new student after admission at the appropriate university level or anytime during the year to all students. The VolCard is used in nearly all aspects of campus life to obtain services. Many students have established debit or charge accounts which are accessed through use of the VolCard ID.

These cards are non-transferable and may not be duplicated. The VolCard must be carried at all times for purposes of identification. Students are responsible for the safekeeping of this card and must immediately report it lost or stolen if the card is not in their possession. Failure to notify the VolCard office will make the student liable for any unauthorized charges to the debit on charge accounts the student may have.

To obtain a new VolCard or replace a lost or stolen card, report to the VolCard Office, Room 472, South Stadium Hall (between gates 12 and 13 at Neyland Stadium) on Stadium Drive or on the Web at http://web.utk.edu/~volcard/. There is a minimum charge of $30.00 for replacement of a VolCard.

Financial Assistance

The University of Tennessee offers several types of financial assistance for which graduate students may apply.

Assistantships

Graduate assistantships, scholarships, traineeships, and some fellowships are offered through many departments and colleges. Information concerning these types of assistance can be obtained from the department in which the student plans to study. All assistantships are governed by the Policy for the Administration of Graduate Assistantships. A student must be enrolled in at least 9 credit hours to be considered full-time for financial aid purposes, even if the student has an assistantship.

Academic Common Market

The Academic Common Market is an agreement among Southern states for sharing unique programs. Participating states can make arrangements for their residents who are fully admitted to specific programs at the University of Tennessee to enroll on an in-state tuition basis if these programs are not available in the state of residence.

Cooperating states in the Academic Common Market are Alabama, Arkansas, Delaware, Florida, Georgia, Kentucky, Louisiana, Maryland, Mississippi, Oklahoma, South Carolina, Tennessee, Texas, Virginia and West Virginia.

Residents of member states who seek further information on approved programs should contact the Southern Regional Educational Board, 592 Tenth Street, N.W., Atlanta, GA 30318-5790, (404) 875-9211, FAX (404) 872-1477, http://www.sreb.org; or Norma Hargett, Office of Undergraduate Admissions, (865) 974-2184.

Fellowships

The Graduate School administers several fellowship programs, including the J. Wallace and Katie Dean Graduate Fellowships and the Herman E. Spivey Graduate Fellowships. These awards are for full-time study at the University of Tennessee and are made on the basis of high achievement, broad intellectual ability and potential for significant career contributions. Candidates from any field of study may be nominated by the academic program for the J. Wallace and Katie Dean Fellowships. Candidates for graduate study in the humanities may be nominated by the academic program for the Herman E. Spivey Fellowships. Information is available on the Graduate School Web site.

Employment

The Office of Financial Aid and Scholarships coordinates the Federal Work Study Program which provides part-time off- and on-campus jobs for U.S. citizens or permanent residents who have demonstrated financial need by completing the Free Application for Federal Student Aid (FAFSA). A wide range of jobs is available in academic units, administrative offices, and non-profit agencies.

Graduate Student Travel Award

The University Program and Services Fee (UPSF) Graduate Student Travel Award is administered by the Office of the Dean of Students in cooperation with the Graduate Student Senate and the Dean of the Graduate School. Allocations from this fund are utilized to provide travel awards for University of Tennessee graduate students attending professional meetings. The awards are made on the basis of merit, need, and allow for partial reimbursement of transportation, lodging and registration expenses.

Travel award requests must be filed using the current UPSF Graduate Student Travel Fund application. Applications can be picked up at the Office of the Dean of Students (413 Student Services Building) or downloaded from the GSS Web site at http://web.utk.edu/~gss. Applications must be submitted to the Office of the Dean of Students by the following deadlines.

- Summer Term: April 15
- Fall Semester: September 1
- Spring Semester: January 15

Loans

Students must apply through the Office of Financial Aid and Scholarships for all loan programs. Loans are limited to U.S. citizens and certain permanent residents. Additional paperwork is required on subsidized/unsubsidized Stafford Loans, including the Free Application for Federal Student Aid (FAFSA). Students must be admitted into a degree program and be enrolled for a minimum of 6 credit hours each semester to receive student loans.

Four types of loan programs are administered by the Financial Aid office.

- Federal Perkins Loan (FAFSA must be on file).
- Subsidized Federal Stafford Loan (FAFSA must be on file).
- Unsubsidized Federal Stafford Loan (FAFSA must be on file).
- Graduate PLUS Loan (FAFSA must be on file).
- The University of Tennessee Loan.
The university does not discriminate on the basis of race, sex, or disability in the education programs and activities pursuant to the requirements of Title VI of the Civil Rights Act of 1964, Title IX of the Education Amendments of 1972, Section 504 of the Rehabilitation Act of 1973, and the Americans with Disabilities Act (ADA) of 1990.

Inquiries and charges of violation concerning Title VI, Title IX, Section 504, ADA, the Age Discrimination in Employment Act (ADEA), or any of the other above referenced policies should be directed to the Office of Equity and Diversity (OED); 1840 Melrose Avenue; Knoxville, Tennessee 37996-3560; telephone (865) 974-2498 (TTY available). Requests for accommodation of a disability should be directed to the ADA Coordinator at the Office of Human Resources; 600 Henley Street; Knoxville, Tennessee 37996-4125.

The University of Tennessee, Knoxville, in its efforts to ensure a welcoming environment for all persons, does not discriminate on the basis of sexual orientation in its campus-based programs, services, and activities. Inquiries and complaints should be directed to the Office of Equity and Diversity.

Security Information

In accordance with the Tennessee College and University Security Information Act of 1989 and the Student Right-To-Know and Campus Security Act (1999 Clery Act), the University of Tennessee has prepared a report containing campus security policies and procedures, data on campus crimes and other related information. The UT Security Brochure for the Knoxville campus is available on the Office of the Dean of Students Web page at http://dos.utk.edu, where you may print the entire document for your use. In addition, a free printed copy of this report may be obtained by any student, employee, or applicant for admission or employment from the Office of the Dean of Students, 413 Student Services Building or at the UT Police Department, 1101 Cumberland Avenue.

Drug-Free Campus and Workplace

In support of the Drug-Free Workplace Act of 1988 (Public Law 100-690) and the Drug-Free Schools and Communities Act of 1989, the University of Tennessee is notifying all students, faculty, and staff of the following university policy approved by the University of Tennessee Board of Trustees on 21 June 1990.

It is the policy of the University of Tennessee to maintain a safe and healthful environment for its students and employees. Therefore, university policy prohibits the unlawful use, manufacture, possession, distribution, or dispensing of drugs (controlled substances as defined in the Controlled Substances Act, 21 U.S. C.812) and alcohol on university property or during university activities.

Violation of this policy is grounds for disciplinary action – up to and including immediate discharge for an employee and permanent dismissal for a student. Federal and state laws provide additional penalties for such unlawful activities, including fines and imprisonment (21 U.S. C.841 et seq.; T.C.A. 39-17-401 et seq.). Local ordinances also provide various penalties for drug and alcohol-related offenses. The University is bound to take all appropriate actions against violators, which may include referral for legal prosecution or requiring the individual to participate satisfactorily in an approved drug testing/alcohol abuse assistance or rehabilitation program.

Aside from any university policy considerations, the use of illicit drugs and/or the abuse of alcohol may be harmful to your health. Some of the health risks associated with such use/abuse are described below.

Individuals who are paid by the University of Tennessee from federal grants or contracts must notify the university of any criminal drug statute conviction for a violation occurring in the workplace within five days after such conviction. The university is, in turn, required to inform the granting or contracting agency of such violation within ten days of the university’s receipt of notification.

Employees and their families needing treatment information should call their local Human Resources Office, Employee Assis-
An assistantship is a financial award to a graduate student for part-time work in teaching, administration or research while pursuing study toward an advanced degree. Appointments are normally on a one-fourth to one-half time basis, and the annual stipend is payable in either nine or twelve monthly installments. In addition to the stipend, Graduate Teaching Assistants, Graduate Teaching Associates, Graduate Assistants, and Graduate Research Assistants are entitled to a waiver of fees for the period of appointment in accordance with university policy. University fees include a maintenance fee (required of all students), tuition (additional for out-of-state students), a program and services fee, and a technology fee. The waiver of fees for assistantships applies to maintenance and tuition fees only; it does not include the program and services fee, the technology fee, the facilities fee, or the transportation fee. For Graduate Research Assistants the maintenance fee is paid by the granting agency and is in addition to the stipend paid.

Maintenance fees and tuition waivers apply to appointments at a one-fourth time basis or higher.

In this document when graduate assistant is not capitalized (except in headings), reference is to all four types of assistantships at the University of Tennessee, Knoxville.

Types of Assistantships

It is imperative that each department adheres to the University of Tennessee, Knoxville, Faculty Handbook’s four categories of assistantships. All departmental guidelines should reflect the descriptions provided in the Handbook.

Graduate Teaching Assistant

Graduate teaching assistants work under the direct supervision of regular faculty members and may be assigned only to duties related directly to instruction. These include such activities as assisting in the preparation of lectures, leading discussion sections, conducting laboratory exercises, grading papers and keeping class records. Assistants may not be given primary teaching and/or evaluation responsibilities nor should they be given duties to support faculty research or those basically clerical in nature.

In consultation with the supervisor, the teaching assistant works to gain teaching skills and an increased understanding of the discipline.

Graduate Teaching Associate

Graduate Teaching Associates are advanced graduate students who have been given primary responsibility for teaching undergraduate courses, including the assignment of final grades. No other category of graduate assistant may be so charged. Associates may not be assigned primary responsibilities for teaching and student assessment in courses approved for graduate credit. Associates must have met the Southern Association of Colleges and Schools (SACS) 18-hour requirement.

Graduate Assistant

Graduate Assistants are appointed to perform various types of duties other than those related directly to teaching or research. Most commonly, these duties relate to supervisory or administrative functions of the university.

Graduate Research Assistant

Graduate Research Assistants perform duties in support of university research, which may or may not relate directly to the students’ thesis/dissertation. A student appointed as a GRA works under the direct supervision of his/her major professor. Research assistantships may be financed through funds from gifts, grants, contracts, state appropriations designated for research, or the university’s internally sponsored programs. Department heads are responsible for assuring that GRAs receive ample opportunities to make continuing progress toward their degrees.

Work Assignments and Related Factors

To utilize the four categories of assistantships, the following provisions should be observed.

1. Work assignments for each type of assistantship should be as specific as possible and should be developed to reflect both the nature of the department and each graduate assistant’s obligation to make satisfactory progress in his/her program. Therefore, to the extent possible an assignment should appropriately reflect teaching hours, office hours, hours to be spent performing research or other specified tasks. Such specifications should be provided in writing at the time the offer is made.

In situations where the work assignment cannot be specifically described or must be changed from an initial assignment, the graduate assistant should clearly be informed before agreeing to, or continuing in, the assignment.

An important part of each graduate assistant’s work assignment is the fostering of professional development. Such development plus variations in departmental needs may result in differences in number of hours per week for carrying out assignments.
Thus, weekly work assignments, when specified, are done so in terms of averages. For a one-fourth time appointment, the graduate assistant’s normal work time should not exceed 10 hours per week. For a one-half time appointment, the average number of hours should not exceed 20 hours per week. Appointments exceeding 50% must have prior approval of the Dean of the Graduate School, excluding summer term. The normal number of hours for conducting an assignment should be mutually understood by the graduate assistant and immediate supervisor. For percentage efforts not covered by those appointments above, the normal work time per week will be prorated.

2. A one-half time graduate assistant in each of the four categories of assistantships normally should enroll for 6-11 semester hours of coursework. A one-fourth time graduate assistant in each of the four categories of assistantships normally should take 9-13 semester hours. Exceptions to the above must have prior approval of the Head of the student’s academic home unit. A student on a one-half time assistantship who takes at least six semester hours will be considered full-time.

The student’s academic home unit is responsible for implementing these policies, regardless of the assignment or responsible account. It is therefore essential that the home unit be notified by any other unit employing the student of any assistantship awarded at the time of its initiation or renewal.

The maximum number of years that a graduate student can be appointed to a 25% or more assistantship is three years as a master’s student, five years as a doctoral student, or eight years in doctoral programs in which students enter with a baccalaureate degree only. Departments or programs may impose stricter limits. Requests for an extension beyond the maximum terms here specified must be made in writing by the academic unit to the Dean of the Graduate School. Established time limits for completion of graduate programs – six years for a master’s program and eight years for a doctoral program – also apply to all graduate assistants.

Qualifications of Graduate Assistants
Graduate assistants must be currently enrolled in graduate study (as fully-admitted degree-seeking students, non-degree students, or transient graduate students). The Southern Association of Colleges and Schools (SACS) 18-hour requirement must also be met.

SACS Requirement
Regulations specifically addressing the 18-hour requirement are excerpted from Section 4.8.4 of the SACS publication, Criteria for Accreditation, (Atlanta, 1996, p. 50) and read as follows:

[Graduate teaching associates] who have primary responsibility for teaching a course for credit and/or for assigning final grades for such a course, and whose professional and scholarly preparation does not satisfy the provisions of Section 4.8.2 [which relate to exceptions] must have earned at least 18 graduate semester hours in their teaching discipline, be under the direct supervision of a faculty member experienced in the teaching discipline, receive regular in-service training, and be evaluated regularly.

The above requirements do not apply to graduate teaching assistants engaged in assignments such as assisting in laboratory sessions, teaching physical education activities, attending or helping prepare lectures, grading papers, keeping class records, and conducting discussion groups.

Implementation of the SACS 18-Hour Requirement at the University of Tennessee, Knoxville
The appropriate department head has responsibility for certifying that the 18-hour requirement is met either through coursework or by documentation that the graduate assistant meets the requirement as an exception (e.g., experience in the performing arts). The dean and department head must sign the appropriate form (APR FORM 1-89) that is attached to the PIF form. This is forwarded to the Office of Human Resource Management. Exceptions should be noted on this form, but a memo and appropriate documentation should be forwarded to the Graduate School, P105 Andy Holt Tower.

Competency in English
The University of Tennessee, Knoxville, requires all who teach to be competent in spoken English. The specific policy, as it relates to graduate students who teach, is as follows: Since a certain level of competency with English as a spoken language is necessary for effective communication and teaching, all Graduate Teaching Assistants and Graduate Teaching Associates whose first language is not English are required to demonstrate an appropriate level of comprehensibility for classroom teaching by taking the SPEAK Test administered through the Graduate School. The Test of Spoken English (TSE) may be taken in lieu of the SPEAK Test. The results of this test will be communicated to the appropriate department to be used in determining the nature and extent of instructional or other duties assigned the Graduate Teaching Assistants or Graduate Teaching Associates. Suggested modes of remediation will be given to the department and graduate student when appropriate.

New international students who have been offered an appointment as Graduate Teaching Assistant or Graduate Teaching Associate will take the SPEAK test after their arrival at the University of Tennessee, Knoxville, and the results of the test will be used to determine the nature of their assignment. The student who has already taken the TSE and received acceptable scores may be excused from the requirement of taking the SPEAK test.

Validation of competence in communicating with students in English is required for all who are responsible for working with students. Deans, department heads, and directors are responsible for validating such competence, using the appropriate university form (APR FORM 1-89).

Rights/Responsibilities of Graduate Assistants
As specified in the Personnel Policies and Procedures Manual (Section 100 105-Pr3, p. 2), “A student employee is one whose primary function is that of enrollment in an academic program.” Thus, first priority of all graduate assistants must be satisfactory progress in their scholastic program. At the same time, acceptance of an assistantship is predicated on the belief that satisfactory progress can be concurrently achieved in work assignments and scholastic programs. Collaborative efforts between graduate assistants and their supervisors should be focused on the goal of satisfactory performance in both these areas.

In cases where graduate assistants feel that they have a legitimate complaint about any aspect of carrying out their assignments (work hours, duties assigned, pay, work conditions, etc.), they have a right to pursue all established channels to resolve the conflict. In the order that follows, the student should speak to his/her immediate supervisor, the appropriate department head, the appeals committees in the home unit or college, and the dean of the college/school involved. If the student feels that a resolution should be sought beyond the department/college level, the Dean of the Graduate School should be contacted. Established procedures outlined in the Graduate Council Appeals Procedure and/or Hilltopics will be followed.

Graduate assistants’ benefits as employees of the University of Tennessee, Knoxville, in addition to fee waivers as explained elsewhere, include workers’ compensation as defined in the Personnel Policies and Procedures Manual under employees’ status. The specific wording reads, “Employees so designated [as student employees] receive no benefits other than statutorily required payments which include Workers’ Compensation” (Section 100 105-Pr2-3).

Graduate student assistantship appointments (Graduate Assistants, Graduate Teaching Assistants, Graduate Teaching Associates and Graduate Research Assistants) are of two types: academic year and twelve month or other. Students on academic year appointments for the fall and spring terms receive 12 equal monthly payments for the nine months of service and a waiver of fees for three terms (including the summer). Students appointed to an academic year appointment beginning in the spring term have the option of receiving seven equal monthly payments for the January-July period or six equal payments for the February-July period. In both cases a fee waiver is provided for spring and summer terms. Graduate students on
academic year appointments have no assistantship responsibilities in the summer term. Students appointed to 12 month or other appointments receive equal monthly payments for the months of the appointments and have assistantship responsibilities for the full period of the appointment. For these appointments a waiver of fees is provided only for those terms included within the appointments (i.e., a waiver of fees for the summer term requires an appointment which encompasses the summer term in its entirety.) In some situations, a graduate assistant may be appointed for a period shorter than a year (e.g., a semester).

Graduate assistants who are performing satisfactorily are normally reappointed up to the maximum time limit as stated below. In situations where the demands of the department do not call for a job to be continued, reappointment may not be made. In cases where a department has a rotational plan for assistantships, graduate assistants likewise may not be reappointed.

In all cases of appointment and reappointment, the supervisor is responsible for notifying the graduate assistant as early as possible. When an assistantship is not to be renewed, the graduate student should be notified in advance. In most cases, this notice must be given no later than one month prior to the end of the appointment. Specific reasons for not renewing the contract should be given (e.g., discontinuation of the program or grant, significant neglect of duty, unsatisfactory academic performance or progress toward a degree, non-compliance with university policies, etc.). In cases where an assistantship is for one year only, the student should be told this at the time of appointment. In some circumstances, graduate assistants may be given a conditional appointment such as an appointment in which funding of a grant is pending.

As students, graduate assistants’ rights and responsibilities are defined in the Faculty Handbook section on Student Rights and Responsibilities and the Student Rights and Responsibilities section of Hilltopics. Additional rights and responsibilities of graduate students are found on the student’s copy of the admission status form.

Evaluation/Supervision of Graduate Assistants

Departments employing graduate assistants will conduct an annual evaluation of each assistant. The results of the evaluation are made available to the assistant and placed in the student’s academic file. Appropriate follow-up also should occur. The evaluation, review with the assistant, and follow-up should focus not only on assistant-related work being done but should be preparatory for future employment, thus providing professional growth. In most cases, a graduate assistant’s supervisor shares results of the evaluation with the assistant and takes appropriate follow-up action.

In cases where corrective measures must be taken to remediate deficiencies, the graduate assistant should be notified in writing of recommended action to solve the problem(s). Situations leading to dismissal for cause must be described in writing to the assistant being dismissed. This letter should be written by the supervisor with a copy to the department head. In cases where the assistant feels that university-related factors (facilities, working conditions, improper supervision, etc.) have had negative effects on specific aspects of job performance, a letter to the immediate supervisor for each graduate assistant (where one exists), the appropriate project director, department head, dean of the college, and the Dean of the Graduate School should be appropriate orientation/training.

The immediate supervisor for each graduate assistant is to be identified as early as possible, usually no later than four weeks prior to the commencement of the assistantship. If there will be more than one supervisor per graduate assistant, the specific tasks to be performed for each and the role each supervisor will play (e.g., which one will initiate the evaluation process) should be identified.

The chain of command within each department should be clearly indicated to graduate assistants. Thus, each graduate assistant should know that the immediate supervisor is the person to whom first contact is to be made in job related questions/directions; followed in turn by a general departmental/school/college supervisor of graduate assistants (where one exists), the appropriate project director, department head, dean of the college, and the Dean of the Graduate School.

Orientation/Training of Graduate Teaching Assistants and Graduate Teaching Associates

There must be a thorough, systematic plan of orientation and training of all graduate teaching assistants and graduate teaching associates. Such orientation and training may be done at either the department, college, or university level. It is the responsibility of each supervisor to see that his/her graduate assistant is provided appropriate orientation/training.

There are several kinds of training that should occur beyond the initial orientation/training. Such training is usually specific to a particular job function. The Graduate School provides a seminar for Graduate Teaching Assistants and Graduate Teaching Associates who will be teaching at the University of Tennessee, Knoxville. Special programs are offered for international GTAs. Supervisors of GTAs are responsible for notifying them about departmental and college policies on attendance at these programs.

Orientation/Training of Graduate Assistants and Graduate Research Assistants

Graduate Assistants and Graduate Research Assistants must also participate in a thorough, systematic orientation and training program. This training is usually at the department or college level, but the Office of Research at the university level is available to assist with programs designed to help train the Graduate Research Assistant in various aspects of the job to be done.

One type of specialized training is on-the-job. Graduate Assistants who work in laboratories may receive initial orientation, followed by work experiences which constitute training. In such instances, the on-the-job training period should be clearly known by the student assistant.

Accepting/Declining An Assistantship

The University of Tennessee adheres to the following Resolution by the Council of Graduate Schools.

Acceptance of an offer of financial support (such as a graduate scholarship, fellowship, traineeship, or assistantship) for the next academic year by a prospective or enrolled graduate student completes an agreement that both student and graduate school expect to honor. In that context, the conditions affecting such offers and their acceptance must be defined carefully and understood by all parties.

Students are under no obligation to respond to offers of financial support prior to April 15; earlier deadlines for acceptance of such offers violate the intent of this Resolution. In those instances in which a student accepts an offer before April 15, and subsequently desires to withdraw that acceptance, the student may submit in writing a resignation of the appointment at any time through April 15. However, an acceptance given or left in force after April 15 commits the student not to accept another offer without first obtaining a written release from the institution to which a commitment has been made. Similarly, an offer by an institution after April 15 is conditional on presentation by the student of the written release from any previously accepted offer. It is further agreed by the institutions and organizations subscribing to the above Resolution that a copy of this Resolution should accompany every scholarship, fellowship, traineeship, and assistantship offer.

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The College of Agricultural Sciences and Natural Resources began in 1869 when the university was designated as Tennessee’s Federal Land-Grant Institution. As such, the university was enabled for the first time to offer instruction in agriculture. Graduate instruction began as early as 1889. The college is not only an academic unit of the University of Tennessee, Knoxville, but is (with the Agricultural Experiment Station, UT Extension and the College of Veterinary Medicine) one of the four units of the University of Tennessee’s Institute of Agriculture.

There are many shared resources and positive interactions between various units of the Institute. Most of the faculty in the College of Agricultural Sciences and Natural Resources hold joint appointments in the Agricultural Experiment Station and are actively involved in significant basic and applied research in agriculture and the associated natural resources. On campus and field research laboratories are utilized in the instructional programs of the college; extension and research activities provide many students excellent opportunities. The Agricultural Experiment Station provides graduate research assistantships to support graduate students.

The unique association the college has with the University of Tennessee and the other units of the Institute of Agriculture makes it possible for the college to offer comprehensive, high-quality graduate programs.

The graduate student is expected to demonstrate a thorough knowledge of the subject matter in his/her specialized field of study and its relationship to the sociological, economic, and environmental impact on society. The student must demonstrate the ability to plan, conduct, analyze, and report original research. Emphasis is given to intellectual growth and the development of scholarly habits of study, reasoning and analysis so that the graduate will continue to grow and develop professionally throughout his/her career.

**Master of Science Programs**

Programs of graduate study leading to the Master of Science degree are offered through all departments in the College of Agricultural Sciences and Natural Resources. The graduate program may be entirely in one major subject or may include subject matter areas related to the major.

Both majors and minors are available in agricultural economics, agricultural and extension education, animal science, biosystems engineering, biosystems engineering technology, entomology and plant pathology, environmental and soil sciences, food science and technology, and plant sciences. Majors only are available in forestry and wildlife and fisheries science, and minors are available in general agriculture. The minor in general agriculture requires 12 hours of coursework. A complete listing of majors is shown on the Graduate Degrees, Majors, and Certificate Programs Chart.

**Doctoral Programs**

Graduate study leading to the Doctor of Philosophy degree with majors in animal science; biosystems engineering; food science and technology; natural resources; and plants, soils, and insects is offered in the college.

**Agricultural and Extension Education Program**

http://aee.tennessee.edu

Randol G. Waters, Graduate Program Director

Professor

Waters, R.G., PhD .............................................. Penn State
Assistant Professor

Fritz, C.A., PhD .............................................. Iowa State
Emeriti Faculty

Lessly, R.R., EdD ........................................... Oklahoma State
Todd, J.D., EdD .............................................. Illinois (Champaign)

**MAJOR**

Agricultural and Extension Education

**DEGREE**

MS

Agricultural education concentration

Agricultural extension education concentration

The agricultural and extension education program is designed primarily for teachers of agricultural education and staff employed by UT Extension. However, due to the flexibility of the program, it would be of value to any student interested in agriculture or adult and continuing education. The program may be completed under a thesis or non-thesis option. Candidates for the master’s degree must meet the general requirements of the Graduate Council and those stipulated by the department.
MASTER OF SCIENCE
AGRICULTURAL AND EXTENSION EDUCATION MAJOR

Requirements

Thesis Option

A candidate for the master's degree who elects the thesis option must successfully complete the following requirements:

• A minimum of 30 hours of graduate credit in courses approved by the student's advisory committee. Six hours of thesis may be counted toward this requirement.
• A minimum of 20 hours of graduate credit in courses numbered at or above the 500 level.
• A minimum of 12 hours of graduate credit in courses appropriate to the area of concentration taught in the department and a minimum of 6 hours taught from outside the department.
• A minimum of 3 hours of graduate credit in coursework in either research methodology or statistics.
• A final oral examination.

Non-Thesis Option

A candidate for the master's degree who elects the non-thesis option must successfully complete the following requirements:

• A minimum of 36 hours of graduate credit in courses approved by the student's advisory committee.
• A minimum of 24 hours of graduate credit in courses numbered at or above the 500 level.
• A minimum of 12 hours of graduate credit in courses appropriate to the area of concentration taught in the department.
• A minimum of 3 hours of graduate credit in coursework in either research methodology or statistics.
• A creative component designed by the student and approved by the student's advisory committee for 3 hours of graduate credit.
• A written and oral comprehensive examination.

DEPARTMENT OF AGRICULTURAL ECONOMICS

http://economics.ag.utk.edu

Dan L. McLemore, Head
John R. Brooker, Graduate Program Director

Professors

Cross, T.L., PhD ........................................ Oregon State
English, B.C., PhD ........................................ Iowa State
Garland, C.D., PhD .................................... Tennessee
Gerloff, D.G., PhD ........................................ Texas A&M
Jensen, K.L., PhD ....................................... Oklahoma State
Klint, T.H., PhD .......................................... Kentucky
McLemore, D.L., PhD ................................. Clemson
Orr, R.H., PhD .......................................... Illinois
Park, W.M., PhD ........................................ Virginia Tech
Rawls, E.L., PhD ...................................... Virginia Tech
Ray, D.E., PhD .......................................... Iowa State
Riley, J.B., PhD ......................................... Oklahoma State
Roberts, R.K., PhD ................................... Iowa State
Smith, G.F., PhD ....................................... Tennessee

Associate Professors

De La Torre Ugarte, D.G., PhD ....................... Oklahoma State
Larson, J.A., PhD ..................................... Oklahoma State
Yen, S.T., PhD ......................................... Minnesota

Assistant Professors

Bazen, E.F., PhD ........................................ Kentucky
Cho, S.H., PhD .......................................... Oregon State
Clark, C.D., PhD ...................................... Vanderbilt
Lambert, D.M., PhD .................................... Purdue

Tiller, K.H., PhD ...................................... Tennessee
Velandia, M., PhD ...................................... Texas Tech
Wilcox, M.D., PhD .................................... Purdue

MAJOR DEGREE

Agricultural Economics

Agribusiness concentration
Agricultural economics concentration
Natural Resource Economics concentration

MASTER OF SCIENCE
AGRICULTURAL ECONOMICS MAJOR

Requirements

The master's program may be completed under a thesis option with a concentration in agricultural economics or natural resource economics. A non-thesis option is available with concentrations in agribusiness or agricultural economics. For specific information, contact the department head.

AGRIBUSINESS CONCENTRATION

The agribusiness concentration is designed to prepare students to succeed in the public or private sectors of agriculture, including product manufacturing and marketing, natural resource management, farm management, and financial analysis. A candidate must complete a minimum of 31 hours of graduate credit in courses approved by the student's master's committee. At least 28 hours must be earned in courses numbered at or above the 500 level. Sixteen hours of agricultural economics; 3 hours of economic theory; 6 hours of quantitative methods; 6 hours of business, statistics, or communications electives; and 3 hours of internship are required. Each student must pass both written and oral comprehensive examinations.

AGRICULTURAL ECONOMICS CONCENTRATION

Thesis Option

The thesis option in agricultural economics is designed to prepare students for analytical and research careers in the public and private sectors and to prepare students interested in entering a PhD program. A candidate must complete a minimum of 31 hours of graduate credit in courses approved by the student's master's committee. At least 28 hours must be earned in courses numbered at or above the 500 level. In the thesis option, 16 hours of agricultural economics, 3 hours of economic theory, 6 hours of quantitative methods, and 6 hours of thesis are required. Each student must pass a final oral examination.

Non-Thesis Option

The non-thesis option in agricultural economics is designed to prepare students for analytical and research careers in the public and private sectors. A candidate must complete a minimum of 36 hours of graduate credit in courses approved by the student's master's committee. At least 33 hours must be earned in courses numbered at or above the 500 level. In the non-thesis option, 27 hours of agricultural economics courses and 9 hours of directed electives are required. Each student must pass both written and oral comprehensive examinations.

NATURAL RESOURCE ECONOMICS CONCENTRATION

The natural resource economics concentration is designed to prepare students for analytical and research careers in the public and private sectors with emphasis on natural resource economics and to prepare students interested in entering a PhD program. A candidate must complete a minimum of 31 hours of graduate credit in courses approved by the student's master's committee. At least 25 hours of graduate credit must be earned at or above the 500 level. Thirteen hours of agricultural economics, 3 hours of economic theory, 6 hours of quantitative methods,
and 6 hours of thesis are required. Twelve hours of coursework must come from a set of directed electives designed to enhance skills in natural resource economics and/or spatial analysis. Each student must pass a final oral examination.

**Agricultural Economics Minor**

A minor requires 6 hours of coursework in the department with at least 3 hours in 500-level courses. The student's committee must include a member of the faculty from the department who will be responsible for designating courses required for the minor.

**Environmental Policy Minor**

The department participates in a program designed to give graduate students an opportunity to develop an interdisciplinary specialization in environmental policy. See Department of Political Science for program description.

**DOCTOR OF PHILOSOPHY**

**NATURAL RESOURCES MAJOR**

**NATURAL RESOURCE ECONOMICS CONCENTRATION**

Students interested in pursuing doctoral studies in the area of natural resource economics may do so with a concentration in natural resource economics under the natural resources PhD major located administratively within the Department of Forestry, Wildlife and Fisheries (see Department of Forestry, Wildlife and Fisheries catalog entry for detailed information). The student's doctoral committee will assist the student in developing a program of graduate coursework that will meet the requirements for the natural resource economics concentration under the natural resources PhD major while drawing heavily from the Department of Agricultural Economics and the Department of Economics.

**Requirements**

Complete 72 semester hours of graduate coursework beyond the bachelor's degree. Forty-eight hours must be in graduate coursework approved by the student's doctoral committee. Up to 24 hours of coursework completed for a master's degree may be applied to the 48-hour requirement. A minimum of 12 of the remaining 24 (or 30 of the 48 if no master's degree) hours must be graded A-F. A minimum of 6 hours must be taken in UT courses at the 600-level, exclusive of dissertation hours. Students are required to complete a minimum of 24 hours of Agricultural Economics 600, Doctoral Research and Dissertation.

Successfully complete Forestry, Wildlife, and Fisheries 601 (3 hours), 610 (2 hours), 612 (1 hour); and Agricultural Economics 520 (1 hour) or similar graduate-level course.

Demonstrate competence in:

- Microeconomic Theory by qualifying examination. Students must take this examination in the summer prior to their second year of study. Prior to taking the examination students must complete Economics 511 and Economics 512 for graduate credit or petition the Agricultural Economics faculty for exemption from these courses.
- Macroeconomic Theory by the completion of a three or more hour graduate-level course in Macroeconomics with a grade of B or better.
- Quantitative Methods by completion of Economics 581, Economics 582 and Economics 583 with grades of B or better, or by qualifying examination.
- Natural Resource Economics by comprehensive examination. Preparation for this comprehensive examination will require completion of Agricultural Economics 570, or equivalent, and Agricultural Economics 670.
- Environmental Economics by comprehensive examination or by comprehensive examination in another field related to natural resources, economics or agricultural economics approved by the student's doctoral committee. Preparation for this comprehensive examination will normally require completion of a sequence of two or more courses in the field of specialization.
- All coursework by oral comprehensive examination. The examination is scheduled by the student and administered by the student's doctoral committee when the student has completed all or nearly all of the coursework. Written qualifying and comprehensive examinations will be given in August (during the week prior to the start of fall semester classes) and in January (during the week prior to the start of spring semester classes). Students must take the oral comprehensive examination during the first semester after passing all written qualifying and comprehensive examinations. Students are expected to take the required courses that prepare them for the written examinations and must take these examinations on their first offering after completing the recommended coursework. Students failing any qualifying or comprehensive examination must retake the examination the next time it is offered or they will receive a failing grade. Failing a qualifying or comprehensive examination for the second time will ordinarily result in dismissal from the program. A qualifying or comprehensive examination may be taken a third time with approval of the Agricultural Economics faculty. Students must file a petition with the Graduate Coordinator who will submit the petition to the faculty. Generally, extenuating circumstances are needed to warrant approval to take an examination a third time. Failing a qualifying or comprehensive examination for a third time will result in dismissal from the doctoral program.

Following formation of the student's doctoral committee, submit a written dissertation proposal to all members of the committee. The student's major professor will then arrange an oral defense of the proposal. The proposal should be submitted and defended no later than one semester after the student takes the Microeconomic Theory qualifying examination.

Complete a doctoral dissertation and pass an oral examination on the dissertation. The dissertation, in the form approved by the major professor, must be distributed to the committee at least two weeks before the examination. The examination must be scheduled through the Graduate School at least one week prior to the examination and must be conducted in university-approved facilities. The examination is announced publicly and is open to all faculty members. The defense of dissertation will be administered by all members of the doctoral committee after completion of the dissertation and all coursework requirements. This examination must be passed at least two weeks before the date of submission and acceptance of the dissertation by the Graduate School. The major professor must submit the results of the defense by the dissertation deadline.

**DEPARTMENT OF ANIMAL SCIENCE**

http://animalscience.ag.utk.edu

Alan G. Mathew, Head
J. Lannett Edwards, Graduate Program Director

**Professors**

Conatser, G.E., MS ............................................. Kentucky
Godkin, J.D., PhD .............................................. Massachusetts
Heitmann, R.N., PhD .......................................... Maine
Hopkins, F., DVM ............................................... Tennessee
Kattesh, H.G., PhD ........................................... Virginia Tech
Kirkpatrick, F.D., PhD ......................................... Tennessee
Lane, C.D., PhD .................................................. Tennessee
Mathew, A.G., PhD ............................................ Purdue
Moustaid-Moussa, N., PhD .................................. Paris
Admission

For admission to the program, a student must have obtained a 3.00 grade point average on a 4.00 scale (or a 3.00 each term during the junior and senior years) in a completed undergraduate degree program in animal science or in a related area. Applicants to the PhD program normally should have completed a master’s degree prior to beginning the doctoral program. In addition, applicants must submit:

- Scores from the general section of the Graduate Record Exam.
- A completed animal science academic and personal information form highlighting educational and career goals and relevant work experience.
- Completed animal science rating forms submitted by at least three individuals familiar with the applicant’s scholastic ability and professional potential.

Admission to the program will be contingent upon faculty evaluation of the applicant’s undergraduate or graduate grade point average, Graduate Record Examination scores, rating forms, educational and career goals, relevant work experience, and scores from the Test of English as a Foreign Language (TOEFL), if applicable. PhD students must be accepted by a major professor, chosen by consulting with the department head and faculty, before being admitted. Prerequisite courses may be required if the student has insufficient undergraduate background. If the student has an unsatisfactory grade point average, acceptance may be on a probationary (non-degree) basis and a minimum of 9 hours of graduate coursework must be completed the first term with a minimum grade point average of 3.00 for admission to the program.

Requirements

The program requires a written dissertation based on original research, at least 48 hours of graduate coursework beyond the Bachelor of Science degree, plus at least 24 hours of doctoral research. Coursework must include the following:

- At least 24 hours credit at the 500 and 600 level, of which a minimum of 6 hours must be at the 600 level.
- A minimum of 16 hours in related fields outside of animal science.
- A minimum of 1 hour of Agriculture and Natural Resources 512 in addition to that required at the Master of Science level.
- Animal Science 696 each spring term for first- and second-year doctoral students.
- At least 6 hours of statistics courses approved for the Intercollegiate Graduate Statistics Program (IGSP).

The student and major professor select the program of study depending on the student’s area of emphasis and professional goals. The student’s graduate committee approves the program of study and dissertation research proposal, as well as conducts the comprehensive oral examination and defense of the thesis.
College of Agricultural Sciences and Natural Resources

Admission

A completed departmental data sheet and three completed Graduate Rating Forms are required in addition to the Application for Graduate Admission. Students must submit scores from the Graduate Record Examination. Each applicant will be advised about any prerequisite courses before entering a program. The student’s program of study must be approved by his/her advisory committee and must comply with the requirements of the Graduate Council.

MASTER OF SCIENCE BIOSYSTEMS ENGINEERING MAJOR

The Master of Science degree, biosystems engineering major, has both thesis and non-thesis options. Students are required to choose between these options in their first semester of study, in consultation with their major professor. Once an option is selected, it may only be changed with written approval of both the major professor and department head.

Requirements

Thesis Option

Applicants accepted into the program must complete at least 30 hours to earn a degree. Of these 30 hours, 20 must be in courses numbered 500 or above (6 hours of thesis plus 14 hours of other courses). Biosystems Engineering 503 must be taken three times during the course of the program, the last of which must be in the student’s final semester before graduation. Other specific requirements for the 30 hours are

<table>
<thead>
<tr>
<th>Hours Credit</th>
<th>Thesis Option</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Mathematics, computer science, statistics, or any course containing appropriate computational components that may be approved by the department.</td>
<td></td>
</tr>
</tbody>
</table>

In addition to completing the 30 hours, master’s students must pass a final oral examination covering the thesis, related areas, and graduate coursework.

Non-Thesis Option

A non-thesis option in biosystems engineering is available to qualified students. Applicants accepted into the program must complete at least 33 hours to earn a degree. Of these 33 hours, 22 must be in courses numbered above 500. Biosystems Engineering 503 must be taken three times during the course of the program, the last of which must be in the student’s final semester before graduation. Other specific requirements for the 33 hours are listed below.

<table>
<thead>
<tr>
<th>Hours Credit</th>
<th>Non-Thesis Option</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Mathematics, computer science, statistics, or any course containing appropriate computational components that may be approved by the department.</td>
<td></td>
</tr>
</tbody>
</table>

In addition to completing the 33 hours, non-thesis students must pass a comprehensive written final examination covering the graduate program, including the capstone experience. At the discretion of the candidate’s committee, an oral examination may also be required.
The advisory committee approves the research problem. Satisfactory completion of this requirement requires a written, original research report that is acceptable to the student's committee.

MASTER OF SCIENCE
BIOSYSTEMS ENGINEERING TECHNOLOGY MAJOR
Requirements
Thesis Option
Applicants accepted into the program must complete at least 30 hours to earn a degree. Of these 30 hours, 20 must be in courses numbered 500 or above (6 hours of thesis plus 14 hours of other courses). Biosystems Engineering Technology 503 must be taken three times during the course of the program, the last of which must be in the student's final semester before graduation. Other specific requirements for the 30 hours are listed below:

BioSystems Engineering Technology 503 (3 times -1 hour), 506, and
other major subject coursework ................................. 12
1Coursework in computational methods .......................... 6
Program electives .................................................. 6
Thesis 500 .......................................................... 6
Total 30

1 Mathematics, computer science, statistics, or any course containing appropriate computational components that may be approved by the department.

In addition to completing the 30 hours, master's students must pass a final oral examination covering the thesis, related areas, and graduate coursework.

Non-Thesis Option
A non-thesis option in biosystems engineering technology is available to qualified students. Applicants accepted into the program must complete at least 33 hours to earn a degree. Of these 33 hours, 22 must be in courses numbered above 500. Biosystems Engineering Technology 503 must be taken three times during the course of the program, the last of which must be in the student's final semester before graduation. Other specific requirements for the 33 hours are listed below:

BioSystems Engineering Technology 503 (3 times -1 hour), 506, and
other major subject coursework ................................. 12
1Coursework in computational methods .......................... 6
Program electives .................................................. 6
Coursework in special emphasis are ............................. 6
Capstone Experience (project and report, typically 508) .......... 3
Total 33

1 Mathematics, computer science, statistics, or any course containing appropriate computational components that may be approved by the department.

In addition to completing the 33 hours, non-thesis students must pass a comprehensive written final examination covering the graduate program, including the capstone experience. At the discretion of the candidate's committee, an oral examination may also be required.

MASTER OF SCIENCE
ENVIRONMENTAL AND SOIL SCIENCES MAJOR
Students seeking the Master of Science degree with a major in environmental and soil sciences will generally concentrate their studies in one of the environmental and soil sciences focus areas. The focus areas include soil and water chemistry; nutrient and elemental cycling; land management and reclamation; pedology, genesis, and classification; environmental climatology; soil biology and biochemistry; and soil physical processes. Both thesis and non-thesis options are available. For additional information, see the environmental and soil sciences master's concentration homepage http://bioengr.ag.utk.edu/graduate/ or contact the environmental and soil sciences program's graduate program director.

Admission
Applicants having a bachelor's degree in fields that are related or unrelated to environmental and soil sciences may apply although acceptance may be contingent upon the completion of prerequisite coursework. Submit application, official transcripts, scores from the general portion of the Graduate Record Examination, and fee to the Office of Graduate and International Admissions. Submit curriculum vitae, three letters of reference (or three Graduate Rating Forms), and a short statement of professional goals and reasons for applying to Environmental and Soil Sciences Master's Program Coordinator, Biosystems Engineering and Soil Science Department, The University of Tennessee, 2506 E.J. Chapman Drive, Knoxville, Tennessee 37996-4531.

Requirements
To obtain a Master of Science degree, the student must meet the following requirements in addition to those of the Graduate Council (as specified in the Master's Degree section at the front of this catalog).

Thesis Option
Upon consultation with the department head, the student will be assigned a major professor who acts as chair of the student's advisory committee. The student and the major professor will assemble a graduate advisory committee consisting of the major professor and a minimum of two additional faculty, each holding the rank of assistant professor or above. At least one-half of the committee members must hold teaching appointments. The advisory committee must be formalized by the end of the second semester of graduate study.

An approved program of study must be developed and submitted by the end of the second semester of graduate study. A minimum of 24 hours of graduate coursework is required in the program of study, exclusive of 6 hours of 500 Thesis. The program of study is subject to the approval of the student's advisory committee, and must meet the following requirements.

<table>
<thead>
<tr>
<th>Hours Credit</th>
<th>Total 30</th>
</tr>
</thead>
<tbody>
<tr>
<td>1Coursework in Soil Sciences 503 (3 times -1 hour)</td>
<td>3</td>
</tr>
<tr>
<td>Courses numbered above 503</td>
<td>12</td>
</tr>
<tr>
<td>Courses within the major (excluding 500-level courses numbered 500, 502, and 503)</td>
<td>9</td>
</tr>
<tr>
<td>500 Thesis</td>
<td>6</td>
</tr>
</tbody>
</table>

1 Must be taken three times during the course of the program, the last of which must be in the student's final semester before graduation.
2 Courses that are in the major include those in environmental and soil sciences, Geology 510, and Environmental Engineering 535. The student's committee may require additional coursework beyond the 24 hours if the student's progress or background indicates a need or deficiency.

During the first two semesters of graduate study, the student must develop a research problem and present the written proposal to his/her committee. This must be done prior to enrollment in 500.

The student must pass a final oral exam (administered by the advisory committee) that integrates the student's thesis and coursework. The student is expected to be conversant in the soil and environmental sciences, particularly in the thesis and allied areas.

A student who has started a degree program under the thesis option is not eligible to transfer to the non-thesis option after the end of the first semester of graduate study or after receiving a graduate assistantship stipend for more than one semester.

Non-Thesis Option
A student desiring the non-thesis option must declare his/her
intention before the beginning of the second semester of study. The student must meet the following requirements, in addition to those of the Graduate Council (as specified in the Master’s Degree section at the front of this catalog).

Upon consultation with the department head, the student will be assigned a major professor who acts as chair of the student’s advisory committee. The student and the major professor will assemble a graduate advisory committee consisting of the major professor and a minimum of two additional faculty, each holding the rank of assistant professor or above. At least one-half of the committee members must hold teaching appointments. The advisory committee must be formalized by the end of the second semester of graduate study.

An approved program of study must be developed and submitted by the end of the second semester of graduate study. A minimum of 33 hours of graduate coursework is required. The program of study is subject to the approval of the student’s advisory committee and must meet the following requirements:

<table>
<thead>
<tr>
<th>Hours Credit</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Environmental and Soil Sciences 503 (3 times -1 hour)</td>
</tr>
<tr>
<td></td>
<td>593 Special Problems in Environmental and Soil Sciences</td>
</tr>
<tr>
<td></td>
<td>Courses numbered above 503 (exclusive of 593)</td>
</tr>
<tr>
<td></td>
<td>Courses within the major (excluding 500 and 502)</td>
</tr>
</tbody>
</table>

1. Must be taken three times during the course of the program, the last of which must be in the student’s final semester before graduation.
2. Courses that are in the major include those in environmental and soil sciences, Geology 510, and Environmental Engineering 535. The student’s committee may require additional coursework beyond the 33 hours if the student’s progress or background indicates a need or deficiency.

In lieu of a thesis, students are required to complete 3 hours of 593 by participating in a single research program for a period of twelve weeks. The advisory committee approves the research problem. Satisfactory completion of this requirement requires a written, original research report that is acceptable to the student’s committee.

A comprehensive written examination that integrates the student’s coursework and research problem must be passed. The exam is developed and administered by the advisory committee.

A student who has started a degree program under the non-thesis option may transfer to the thesis option upon approval of a potential major professor and the department head.

**DOCTOR OF PHILOSOPHY**

**PLANTS, SOILS, AND INSECTS MAJOR**

**ENVIRONMENTAL AND SOIL SCIENCES CONCENTRATION**

A doctorate with a major in plants, soils, and insects and a concentration in environmental and soil sciences is offered under a multi-departmental doctoral program. Three departments participate – Plant Sciences, Entomology and Plant Pathology, and the soils faculty in Biosystems Engineering and Soil Science. Other concentrations within the plants, soils, and insects doctoral program include bioactive natural products, crop sciences, entomology, horticulture, integrated pest management, plant breeding, plant molecular genetics, plant pathology, and weed biology. Focus areas in the environmental and soil sciences concentration include soil and water chemistry; nutrient management; pedology, genesis and classification; environmental climatology; soil biology and biochemistry; and soil physical processes. See the environmental and soil sciences doctoral concentration home page for additional information, http://bioengr.ag.utk.edu/graduate/ or contact a faculty member in the area of interest.

**Admission**

Submit application, fee, official transcripts, and scores from the general portion of the Graduate Record Examination to the Office of Graduate and International Admissions. Submit résumé, three letters of reference (or three Graduate Rating Forms), photocopy of Graduate Record Examination scores, and a short statement of professional goals and reasons for applying to Environmental and Soil Sciences Doctor of Philosophy Program Coordinator, Biosystems Engineering and Soil Science Department, The University of Tennessee, Knoxville, 2506 E.J. Chapman Drive, Knoxville, Tennessee 37996-4531. In the statement letter and application, interest in the environmental and soil sciences concentration should be indicated.

**Requirements**

The student and the major professor will select a minimum of three additional faculty, holding the rank of assistant professor or above, to serve on the student’s doctoral committee. The major professor and two committee members must be approved to direct doctoral research by the Graduate Council. At least one member of the committee must be from outside the department. The doctoral committee must be formalized by the end of the second semester of graduate study.

An approved program of study must be submitted by the end of the second semester of graduate study. A candidate for the doctoral degree must complete a minimum of 24 hours of graduate coursework beyond the master’s degree. Candidates not having a master’s degree must complete a minimum of 48 hours of graduate coursework beyond the baccalaureate degree, 24 hours of which must be numbered 503 or higher. A minimum of 12 of the 24 hours, or 30 of the 48 hours, must be graded A-F. At least 9 hours of the student’s coursework must be from outside the plants, soils, and insects major and a minimum of 6 hours of courses numbered 601 or higher must be taken at University of Tennessee, Knoxville. In addition, 24 hours of course 600 Doctoral Research and Dissertation are required.

Satisfactory preparation of a written dissertation proposal and an oral defense to the student’s committee are required. These must be completed during the first two semesters of graduate study and before enrollment in 600.

Both written and oral sections of the comprehensive examination must be passed. The candidate will be tested on his/her knowledge of the proposed dissertation and related fields. The student is expected to be conversant in the wide area of soil and environmental sciences.

Environmental and Soil Sciences 603 must be taken three times during the course of the program, the last of which must be in the student’s final semester before graduation.

Preparation of a written dissertation and its oral defense to the student’s doctoral committee are required.

Please see the Degree Program Requirements/Doctoral Degree section at the front of this catalog for additional information.

**DOCTOR OF PHILOSOPHY**

**BIOSYSTEMS ENGINEERING MAJOR**

**Admission**

Students applying for admission into the doctoral program must submit evidence of ability to perform and report independent research to the satisfaction of the faculty of the department. An approved master’s thesis will usually be acceptable for this purpose.

**Requirements**

To earn a degree, each doctoral student must complete at least 75 hours of approved graduate credit (beyond the baccalaureate degree) in biosystems engineering and supporting areas (engineering, computational methods, agricultural and biological sciences, and other related areas). Of the 75 hours, 48 must be in courses numbered greater than 500 (including 24 hours of course 600) and 6 hours of courses at the University of Tennessee, Knoxville, numbered greater than 600. Other specific requirements for the minimum 75 hours are listed below.
MASTER OF SCIENCE
ENTOMOLOGY AND PLANT PATHOLOGY MAJOR

Admission
For admission to the Master of Science program, a student must meet all requirements of the University of Tennessee, Knoxville, Graduate Council and must have completed (1) general botany or biology, 8 hours; (2) advanced biological sciences, 8 hours; (3) general inorganic chemistry, 6 to 8 hours; (4) organic chemistry, 3 hours. In addition, three completed rating forms and a written statement of career goals and interest in entomology or plant pathology should be submitted to the department. Submit application, fee, official transcripts, and scores from the general portion of the Graduate Record Examination to the Office of Graduate and International Admissions.

Requirements
The program requires a written thesis based on original research and the completion of a minimum of 24 hours of coursework for graduate credit, approved by the student’s advisory committee. Included in the course requirements are two acceptable seminar presentations for 1 hour each. An oral final exam must be passed to the satisfaction of the advisory committee after the thesis has been completed. A minor is not required but may be selected at the option of the student. The minor includes at least 6 hours and not more than 10 hours of graduate-level credit in the minor department. The student's committee must include a member of the faculty from the minor department to assist in designating courses required for the minor.

DOCTOR OF PHILOSOPHY
PLANTS, SOILS, AND INSECTS MAJOR
BIOACTIVE NATURAL PRODUCTS CONCENTRATION
ENTOMOLOGY CONCENTRATION
INTEGRATED PEST MANAGEMENT CONCENTRATION
PLANT PATHOLOGY CONCENTRATION

A Doctor of Philosophy degree with a major in plants, soils, and insects and concentrations in bioactive natural products, entomology, integrated pest management, and plant pathology is offered under a multi-departmental doctoral program. Three departments participate – Plant Sciences, Entomology and Plant Pathology, and the soils faculty in Biosystems Engineering and Soil Science. Other concentrations within the plants, soils, and insects major include crop sciences, environmental and soil sciences, horticulture, plant improvement, and weed biology. Please see the doctoral program links on the homepage of the Department of Entomology and Plant Pathology for additional information, http://eppserver.ag.utk.edu/, or contact a faculty member in the area of interest.

Admission
Submit application, fee, official transcripts, and scores from the general portion of the Graduate Record Examination to the Office of Graduate and International Admissions. Submit résumé, three letters of reference (or three Graduate Rating Forms), photostopy of Graduate Record Examination scores, and a short statement of professional goals and reasons for applying to Entomology and Plant Pathology Doctor of Philosophy Program Coordinator, Department of Entomology and Plant Pathology, 2431 Joe Johnson Drive, 205 Plant Sciences Building, The University of Tennessee, Knoxville, Tennessee, 37996-4560. In the statement letter and application, the concentration of interest and intended major professor should be indicated.
Requirements

The student and the major professor will select a minimum of three additional faculty, holding the rank of assistant professor or above, to serve on the student’s doctoral committee. The major professor and two committee members must be approved to direct doctoral research by the Graduate Council. At least one member of the committee must be from outside the department. The doctoral committee must be formalized by the end of the second semester of graduate study.

Submission of an approved program of study by the end of the second semester of graduate study is required. A candidate for the doctoral degree must complete a minimum of 24 hours of graduate coursework numbered 503 or higher beyond the master’s degree. Candidates not having a master’s degree must complete a minimum of 48 hours of graduate coursework beyond the baccalaureate degree, 24 hours of which must be numbered 503 or higher. A minimum of 12 of the 24 hours, or 30 of the 48 hours, must be graded A-F. At least 9 hours of the student’s coursework must be from outside the plants, soils, and insects major, and a minimum of 6 hours of courses numbered 601 or higher must be taken at the University of Tennessee, excluding Entomology and Plant Pathology 603. In addition, 24 hours of course 600 Doctoral Research and Dissertation are required.

Satisfactory preparation of a written dissertation proposal and an oral defense to the student’s committee are required. These must be completed during the first two semesters of graduate study and before enrollment in 600.

Both written and oral sections of the comprehensive examination must be passed. The candidate will be tested on his/her knowledge of the proposed dissertation and related fields.

Presentation of at least two departmental seminars (2 hours of Entomology and Plant Pathology 640) and an exit seminar (no credit) are required.

Satisfactory preparation of a written dissertation and an oral defense to the student’s doctoral committee are required.

See the Degree Program Requirements/Doctoral Degree section at the front of this catalog for additional information.

DEPARTMENT OF FOOD SCIENCE AND TECHNOLOGY

http://foodscience.utk.edu

P. Michael Davidson, Head
David A. Golden, Graduate Program Director

Professors

Davidson, P.M., PhD .................................................. Washington State
Draughon, F.A., PhD .................................................. Georgia
Morris, W.C., PhD ..................................................... Iowa State

Associate Professors

Loveday, H.D., PhD .................................................. Kansas State
Mount, J.R., PhD ..................................................... Ohio State
Zivanovic, S., PhD .................................................. Arkansas

Assistant Professors

D’Souza, D., PhD .................................................. Georgia
Harte, F.M., PhD .................................................. Washington State
Zhong, Q., PhD .................................................. North Carolina State

Emeriti Faculty

Brekke, C.J., PhD .................................................. Wisconsin
Penfield, M.P., PhD .................................................. Tennessee

MAJOR DEGREES

Food Science and Technology
MS

Food Science and Technology
PhD

Food chemistry concentration
Food microbiology concentration
Food processing concentration
Sensory evaluation of foods concentration

Students in the doctoral program may choose research in the concentration areas of food chemistry, food microbiology, food processing, or sensory evaluation of foods. Commodity interests (meats, dairy, fruits, vegetables, bakery products) can be emphasized in any of the areas by careful selection of courses and the research topic. Minors are available in cognate fields. For detailed information, contact the department head.

Admission

Admission requirements of the Graduate Council of the University of Tennessee, Knoxville, apply. In addition, applicants must submit scores from the general section of the Graduate Record Exam, a written statement of educational and career goals, and Graduate Rating Forms or letters of recommendation from at least three people familiar with the applicant’s scholastic ability and professional potential. Admission to the program is contingent upon faculty evaluation of the applicant’s undergraduate/graduate grade point average, Graduate Record Examination scores, rating forms, relevant work experience, and scores from the Test of English as a Foreign Language (TOEFL), if applicable.

MASTER OF SCIENCE

FOOD SCIENCE AND TECHNOLOGY MAJOR

Applicants must have a Bachelor of Science in food technology, food science, or a related scientific field.

Requirements

Thesis Option

• Prior to research for the thesis, the student must develop a detailed written research plan. Registration for 6 hours of 500 Thesis is required.

• In addition to the thesis requirement, a minimum of 24 hours of graduate coursework is required. This work must be approved by the student’s committee and a minimum of 14 hours must be courses numbered above 500. The student’s progress or background indicates such need.

• All students are required to take 2 hours of 501 Seminar in their program and are expected to attend this course and participate in discussions during their master’s program.

• An oral final examination covering the thesis and coursework is required.

Non-Thesis Option

• In lieu of a thesis, students are required to complete a problem in cooperation with their employer (company or governmental agency) and their faculty committee. Students working on a problem must register for 6 hours of 503.

• In addition to the requirement for 6 hours of 503, a minimum of 24 hours of graduate coursework is required. This work must be approved by the student’s committee and a minimum of 14 hours must be in courses numbered above 500. The committee may require additional coursework if the student’s progress or background indicates such need.

• All students are required to take 2 hours of 501 Seminar in their program and are expected to attend this course and participate in discussions during their master’s program. Completion of 510 or equivalent is also required.

• Students will be required to take a written comprehensive examination covering their coursework. In addition, an oral final examination covering the problem and coursework is required. The oral examination will be held on the Knoxville campus.
DOCTOR OF PHILOSOPHY
FOOD SCIENCE AND TECHNOLOGY MAJOR

Requirements

- Completion of a master’s degree in the field, or a closely related field, or passing a special qualifying examination is required for admission.
- A dissertation is required for the Doctor of Philosophy degree. Each student must develop a detailed written plan for the dissertation research.
- A minimum of 72 hours beyond the bachelor’s degree, excluding credit for the master’s thesis, is required. Of this, 24 hours must be 600 Doctoral Research and Dissertation.
- At least 24 hours of coursework numbered above 500, exclusive of doctoral research and dissertation, are required. At least 6 of the 24 hours must be courses numbered above 600.
- A minimum of 6 hours of courses for graduate credit must be taken outside the Department of Food Science and Technology.
- All candidates must complete 601 (2 hours) and are expected to attend 601 during their PhD program.
- Each candidate must pass both written and oral comprehensive examinations prior to admission to candidacy. Major professors will advise candidates on their competencies expected. A final oral examination is required that includes a defense of the dissertation and subject matter that the student’s committee considers appropriate.

DEPARTMENT OF FORESTRY, WILDLIFE AND FISHERIES

http://fwf.ag.utk.edu/

Keith L. Belli, Head
D.A. Buehler, Graduate Program Director

Professors

Belli, K.L., PhD ........................................... Minnesota
Buehler, D.A., PhD ............................... Virginia Tech
Clatterbuck, W.W., PhD ......................... Mississippi State
Dearden, B.L., PhD .............................. Colorado State
Fly, J.M., PhD ................................. Michigan
Hodges, D.G., PhD ............................. Georgia
Houston, A.T., PhD ............................. Tennessee
Ostermeier, D.M., PhD ........................... Syracuse
Rials, T.G., PhD ................................. Virginia Tech
Scharbaum, S.E., PhD ............................. Colorado State
Strange, P., PhD ................................ Oregon State
Wilson, J.L., PhD ................................. Tennessee

Associate Professors

Buckley, D.S., PhD ............................... Michigan Tech
Bozell, J.J., PhD ................................. Colorado State
Harper, C.A., PhD ............................... Clemson
Hickling, G.J., PhD ............................. Western Ontario (Canada)
Keyser, P.D., PhD ............................... Clemson
Muller, L.L., PhD ................................. Georgia
Wang, S., PhD ................................. Nanjing Forestry (China)
Young, T.M., PhD ............................... Tennessee

Assistant Professors

Eda, S., PhD ................................. Japan
Franklin, J.A., PhD ............................. Alberta (Canada)
Gray, M.J., PhD ................................. Texas Tech
Harper, W.G., PhD .............................. Washington State
Hening, J.G., PhD ............................... Virginia Tech
Henry, T.B., PhD ............................... Auburn
Labbe, N., PhD ............................... Bordeaux (France)
Taylor, M.M., PhD .............................. Oregon State
Van Manen, F., PhD ............................ Tennessee

Instructors

Minser, W.G., MS .............................. Tennessee
Moschler, W., MS .............................. Virginia Tech

Adjunct Faculty

Albright, R., PhD ................................. Southern Illinois
Clark, J.D., PhD ................................. Arkansas
Franzreb, K., PhD ............................... Arizona State
Lannom, K.O., PhD ............................. Michigan Tech
Peine, J., PhD ................................. Arizona

Emeriti Faculty

Dimmick, R.W., PhD ............................. Wyoming
Hill, S.R., T.K., PhD ............................. Auburn
Pelton, M.R., PhD ............................... Georgia
Rennie, J.C., PhD ............................... North Carolina State
Schneider, G., PhD .............................. Michigan State
Speir, C.A., PhD ................................. Utah State
Stumbo, D.A., PhD ............................. Minnesota

MAJORS

Forestry ............................. MS
Natural Resources ............................ PhD
Natural Resource Economics concentration
Wildlife and Fisheries Science ........................ MS

The mission of the Department of Forestry, Wildlife and Fisheries is to advance the management, utilization, and appreciation of natural resources in Tennessee, the region, and beyond through programs in teaching, research, and extension.

MASTER OF SCIENCE
FORESTRY MAJOR
WILDLIFE AND FISHERIES SCIENCE MAJOR

Admission

For admission, the student must have a bachelor’s degree from an accredited institution in forestry, wildlife, fisheries, or another natural resource area. Applicants must take the general Graduate Record Examination with minimum scores required. Graduate Rating Forms or letters of recommendation from three individuals familiar with the applicant’s academic ability are required. The department also has an application that must be submitted at the time of application to the Office of Graduate and International Admissions.

Requirements

Both thesis and non-thesis options are available for the major in forestry; a thesis is required in the wildlife and fisheries science major.

Thesis Option

- Prior to research for the thesis, the student is required to develop a detailed written research proposal. Registration for 6 hours of thesis (Forestry 500 or Wildlife and Fisheries Science 500) is required.
- A graduate committee of no fewer than three faculty members must be selected by the second semester of residence. At least one member must be from outside the department. In addition to the thesis requirement, a minimum of 24 hours of graduate coursework is required. This work must be approved by the student’s committee and no more than 10 hours of the minimum 30 can be below the 500 level. The committee may require additional coursework if the student’s progress or background indicates such need.
- All students are required to include Forestry 512 or Wildlife and Fisheries Science 512 Seminar, in their programs. This is required of each graduate student in residence fall semester.
- An oral examination covering the thesis and coursework is required.

Non-Thesis Option (Forestry major only)

- 35 hours of graduate coursework of which 23 must be at the 500 level or above is required.
A graduate committee of no fewer than three faculty members will be selected. At least one member shall be from outside the department. The committee will meet and schedule the student's program during the first semester in residence.

Three hours of Forestry 511 are required.

Nine hours of coursework in the department must be at the 500 level or above, exclusive of Forestry 511.

Final comprehensive written and oral examinations shall be taken upon completion of no fewer than 28 hours of approved study.

DOCTOR OF PHILOSOPHY
NATURAL RESOURCES MAJOR

The doctoral program with a major in natural resources emphasizes interdisciplinary research approaches toward the understanding and management of natural resources in a broad context. Areas of study include forest, wildlife, and fisheries biology; ecosystem function and structure; natural resource economics and policy; human dimensions of natural resource management; wildlife recreation; natural resource organization administration and management; wood sciences; and multidisciplinary natural resources management. An optional, formal concentration in natural resource economics is also available for interested students.

Admission

Applicants to the PhD program normally should have completed a master’s degree prior to beginning the doctoral program. Specific admission requirements include

• A minimum grade point average of 3.00 on a 4.00 scale.
• A minimum composite score from the general Graduate Record Examination on the verbal, quantitative, and analytical sections of 1650, with a minimum of 1100 on the verbal and quantitative sections.
• A statement of professional goals, natural resource management philosophy, and reasons for applying to the program.
• Three letters of reference from individuals capable of evaluating the applicant’s potential for graduate work in interdisciplinary natural resource management.

Requirements

A candidate for the doctoral degree must complete 72 hours of coursework beyond the bachelor’s degree. Forty-eight hours must be in graduate coursework approved by the student’s doctoral committee. Up to 24 hours of master’s-level coursework may be applied to the 48-hour requirement. A minimum of 6 hours must be taken in university courses at the 600 level, exclusive of dissertation hours. Specific requirements are listed below.

Research Methods and Analysis (9 hours in at least two of the subject areas)

• Research/Experimental Design.
• Statistics/Econometrics/Biometrics.
• GIS/Remote Sensing.

Core Subject areas (33 hours to be determined by doctoral committee)

Professional Development (7 hours)

• Teaching – All students will be expected to complete Forestry, Wildlife and Fisheries 601 and assist in teaching a course during their tenure in the program.
• Problem Solving – Forestry, Wildlife and Fisheries 610 will be required of all doctoral students. This course will include participation in an interdisciplinary team to address a significant national or regional natural resource issue.
• Professional Communication – All students will be required to complete Forestry, Wildlife and Fisheries 612 two times as part of their program of study. Part of the seminar requirement will consist of assisting in the development and conduct of Forestry 512 and Wildlife and Fisheries 512.

FORESTRY, WILDLIFE AND FISHERIES OR AGRICULTURAL ECONOMICS
600 DOCTORAL RESEARCH AND DISSERTATION (24 HOURS)

A doctoral committee consisting of at least four faculty members must be identified by the student and major professor. At least one of the committee members must be from the Department of Forestry, Wildlife and Fisheries and one member must be from an academic unit other than Forestry, Wildlife and Fisheries. Three of the committee members, including the major professor, must be approved by the Graduate Council to direct doctoral research. The committee should be formed during the first year of the student’s program.

All students are required to successfully complete an oral and written examination on all coursework completed as part of the Doctor of Philosophy requirements. The exam is scheduled when the student has completed all or nearly all of the coursework. The doctoral committee will determine the content, nature, and schedule of the comprehensive exam and will certify the results.

During the first year, the student should develop a research prospectus that outlines the research problem to be addressed as part of his/her doctoral research. The prospectus is presented to the student’s committee and the committee will approve the research topic and approach.

All students are required to complete, present, and defend a dissertation. The student should provide each member of the committee with a copy of the dissertation at least two weeks prior to the scheduled defense. All students are required to present a seminar on their dissertation as part of the degree requirements. The seminar can be part of the dissertation defense or presented before the formal defense.

NATURAL RESOURCE ECONOMICS CONCENTRATION

Students interested in pursuing doctoral studies in the area of natural resource economics may do so with a concentration in natural resource economics. The student’s doctoral committee will assist the student in developing a program of graduate coursework that will meet the requirements for the concentration under the natural resources PhD major, while drawing heavily from the Department of Agricultural Economics and the Department of Economics. (See Department of Agricultural Economics catalog entry for detailed information).

Environmental Policy Minor

The department participates in a program designed to give graduate students an opportunity to develop an interdisciplinary specialization in environmental policy. See Department of Political Science for program description.

DEPARTMENT OF PLANT SCIENCES

http://plantsciences.utk.edu/

G. Neil Rhodes, Head
Dennis R. West, Graduate Program Director

Professors

Albrecht, M.L. (Associate Dean), PhD .................. Ohio State
Allen, F.L., PhD ........................................ Minnesota
Augé, R.M., PhD ........................................ Washington State
Bates, G.E., PhD ........................................ Georgia
Denton, H.P., PhD ......................................... North Carolina State
Hayes, R.M., PhD ........................................ Illinois
Lockwood, D.W., PhD .................................... Purdue
Miller, R.D., PhD .............................................. Kentucky
Mueller, T.C., PhD .............................................. Georgia
Rhodes, G.N., PhD .............................................. North Carolina State
Samples, T.J., PhD .............................................. Oklahoma State
Sams, C.E. (Austin Distinguished Professor), PhD .......... Michigan State
Stewart, C.N. (Racheff Chair), PhD ........................ Virginia Tech
West, D.R., PhD .............................................. Nebraska

 Associate Professors
Cheng, Z.M., PhD .............................................. Cornell
Gwathmey, C.O., PhD .......................................... California (Riverside)
Hamilton, S.L., EdD ............................................... Tennessee
Klingeman, W.E., PhD .......................................... Georgia
Menendez, G.L., MS .............................................. Tennessee
Pantalone, V.R., PhD ........................................... North Carolina State
Rogers, S.M., MLA ............................................... Georgia
Stewart, C.E., MLA ............................................... Georgia

 Assistant Professors
Armel, G.R., PhD .............................................. Virginia Tech
Bailey, W.A., PhD .............................................. Virginia Tech
Chen, F., PhD ..................................................... California (Davis)
Main, C.L., PhD .................................................. Tennessee
Smith, B.R., PhD ............................................... Cornell
Sorochan, J.C., PhD ........................................... Michigan State
Steckel, L.E., PhD ............................................... Illinois
Thompson, M.A., PhD ........................................... Purdue
Wszelaki, A.L., PhD .......................................... California (Davis)
Zale, J.M., PhD .............................................. Saskatchewan (Canada)

 Instructors
Flanagan, P.C., MS .............................................. Tennessee
Osburn, L.D., MS .................................................... Tennessee

 Adjunct Faculty
Airhart, D.L., PhD ............................................... Georgia
Bentley, M.L., EdD ............................................... Virginia
Ott, R.J., MBA ..................................................... Tennessee

 Emeriti Faculty
Coffey, D.L., PhD .............................................. Purdue
Mcdaniel, G.L., PhD ........................................... Iowa State

 MAJORS DEGREES
Landscape Architecture MLA
Plant Sciences MS
Plants, Soils, and Insects PhD
Crop sciences concentration
Horticulture concentration
Plant breeding concentration
Plant molecular genetics concentration
Weed science concentration

 The Department of Plant Sciences offers two graduate degrees – the Master of Science with a major in plant sciences and the Doctor of Philosophy with a major in plants, soils, and insects. For additional information, please visit the departmental homepage. Inquiries may be directed to the Chair, Graduate Committee, Department of Plant Sciences, The University of Tennessee, Knoxville, Tennessee 37996-4561, or plantsciences@utk.edu.

 MASTER OF SCIENCE PLANT SCIENCES MAJOR

Both thesis and non-thesis options are available for the major in plant sciences, each guided by a graduate committee consisting of the major professor and two or more other faculty members. Studies are possible in a wide variety of commodities and subject areas, including fruits, vegetables, weeds, cereals, grains, turfgrass, woody ornamentals, and public horticulture. Students may specialize in one or more disciplines, including plant protection, molecular biology, breeding, genetics, biotechnology, physiology, ecology, culture, and management.

Admission

 Students should have a bachelor's degree from an accredited college or university with evidence of ability to do work of graduate quality. Applicants are expected to have a minimum cumulative grade point average of 2.70 on a 4.00 scale.

 Application must be made to both the Office of Graduate and International Admissions and the Department of Plant Sciences. The departmental application requires three letters of reference (or three Graduate Rating Forms) from persons capable of assessing the applicant's suitability for graduate work in plant science, resume, and a statement of professional goals and reasons for applying to the program. Applicants are also required to submit scores from the general Graduate Record Examination to Graduate and International Admissions (send photocopy to department). Successful applicants will usually score above the 50th percentile on the verbal, quantitative and analytical writing sections of the Graduate Record Examination. Prior undergraduate coursework in mathematics, biology and chemistry is recommended.

 Requirements

• Approval of the academic program by the master's committee.
• Successful completion of 12 hours of coursework in the major at the graduate level (400 or above), exclusive of Plant Sciences 502 and 503. Two of these hours must be Plant Sciences 504 and 505. With agreement of the graduate student's committee, six of these hours may be satisfied by Art 481; Biochemistry and Cellular and Molecular Biology 404, 522, 523; Cultural Studies in Education 560; Ecology and Evolutionary Biology 414, 433, 560; Environmental and Soil Sciences 434, 544, 511, 516; Geography 439; Information Sciences 560; or Sociology 633.
• Presentation of at least two departmental seminars.

 Please see the Degree Program Requirements/Master's Degree section at the front of this catalog for additional information.

 Thesis Option

• Satisfactory preparation of a written thesis proposal and its oral defense to the student's committee.
• Successful completion of 30 hours of graduate credit, which must include 6 hours of 500. At least 14 of these hours must be numbered 501 or above.
• Preparation of a written thesis and its oral defense.

 Non-Thesis Option

• Successful completion of 34 hours of graduate credit, which must include 2-4 hours of Plant Science 503. At least 22 of these hours must be at the 500 level or above.
• Completion of a project and preparation of a written report summarizing the project.
• Passing written and oral examinations covering the project and coursework.
DOCTOR OF PHILOSOPHY
PLANTS, SOILS, AND INSECTS MAJOR
CROP SCIENCES CONCENTRATION
HORTICULTURE CONCENTRATION
PLANT BREEDING CONCENTRATION
PLANT MOLECULAR GENETICS
CONCENTRATION
WEED SCIENCE CONCENTRATION

The Doctor of Philosophy with a major in plants, soils, and insects and concentrations in crop sciences, horticulture, plant breeding, plant molecular genetics, and weed science is offered under a multi-departmental doctoral program. Three departments participate – Plant Sciences, Entomology and Plant Pathology, and the soils faculty in Biosystems Engineering and Soil Science. Other concentrations within the plants, soils, and insects major include bioactive natural products, entomology, environmental and soil sciences, integrated pest management, and plant pathology. Please see the Plant Sciences homepage for additional information, http://plantsciences.utk.edu, or contact a faculty member in the area of interest.

Students may select a formal concentration as a focus of study but this is not a requirement. We recognize that modern research approaches in plant sciences often overlap. Students may specialize in one or more approaches, including plant biotechnology, molecular biology, breeding, genetics, physiology, ecology, culture and management. Research may feature fruits, vegetables, turfgrass, weeds, woody ornamentals, cereals, grains, fiber, public horticulture or model plant systems.

Admission
Submit application, fee, official transcripts, and scores from the general portion of the Graduate Record Examination to the Office of Graduate and International Admissions. Submit resume, three letters of reference (or three Graduate Rating Forms), photocopy of Graduate Record Examination scores, and a short statement of professional goals and reasons for applying to Plant Sciences Doctor of Philosophy Program Coordinator, Department of Plant Sciences, 2431 Joe Johnson Drive, 252 Plant Sciences Building, The University of Tennessee, Knoxville, Tennessee 37996-4561.

In the statement letter and application, the concentration of interest and the intended major professor should be indicated.

Requirements
The student and the major professor will select a minimum of three additional faculty, holding the rank of assistant professor or above, to serve on the student’s doctoral committee. The major professor and two committee members must be approved to direct doctoral research by the Graduate Council. At least one member of the committee must be from outside the department. The doctoral committee must be formalized by the end of the second semester of graduate study.

An approved program of study must be submitted by the end of the second semester of graduate study. A candidate for the doctoral degree must complete a minimum of 24 hours of graduate coursework beyond the master’s degree. Candidates not having a master’s degree must complete a minimum of 48 hours of graduate coursework beyond the baccalaureate degree. A minimum of 12 of the 24 hours, or 30 of the 48 hours, must be graded A-F. At least 9 hours of the student’s coursework must be from outside the plants, soils and insects major, and a minimum of 6 hours of courses numbered 601 or higher must be taken at the University of Tennessee, excluding Plant Sciences 602. In addition, 24 hours of course 600 Doctoral Research and Dissertation are required.

Satisfactory preparation of a written dissertation proposal and an oral defense to the student’s committee are required. This must be completed during the first two semesters of graduate study and before enrollment in 600.

Both written and oral sections of the comprehensive examination must be passed. The candidate will be tested on his/her knowledge of the proposed dissertation and related fields.

PhD students must enroll in 3 hours of Plant Sciences 504. Presentation of at least two departmental seminars, in addition to an exit seminar (not credited as PS 504) are required.

Satisfactory preparation of a written dissertation and an oral defense to the student’s doctoral committee are required.