THE UNIVERSITY OF TENNESSEE, KNOXVILLE

The University of Tennessee, Knoxville does not discriminate on the basis of race, sex, color, religion, national origin, age, handicap, or veteran status in provision of educational opportunities or employment opportunities and benefits.

UT Knoxville does not discriminate on the basis of sex or handicap in the education programs and activities which it operates, pursuant to the requirements of Title IX of the Educational Amendments of 1972, Public Law 92-318; and Section 504 of the Rehabilitation Act of 1973, Public Law 93-112, respectively. This policy extends both to employment by and admission to the University.

Publication Authorization Number: E01-0425-008-90
University Calendar for 1990-91

**Summer Term 1990**

<table>
<thead>
<tr>
<th>Dates</th>
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<tbody>
<tr>
<td>May 31 (Thursday)</td>
<td>Classes Begin</td>
</tr>
<tr>
<td>July 3 (Tuesday)</td>
<td>First Session Ends</td>
</tr>
<tr>
<td>July 5 (Thursday)</td>
<td>Second Session Begins</td>
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<tr>
<td>July 4 (Wednesday)</td>
<td>Independence Day</td>
</tr>
<tr>
<td>August 8 (Wednesday)</td>
<td>Second Session Ends</td>
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<td>August 10 (Friday)</td>
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**Fall Semester 1990**

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<tr>
<td>August 22 (Wednesday)</td>
<td>Classes Begin</td>
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<tr>
<td>September 3 (Monday)</td>
<td>Labor Day</td>
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<tr>
<td>October 5 (Friday)</td>
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<tr>
<td>November 22-23 (Thursday-Friday)</td>
<td>Thanksgiving</td>
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<td>December 6-7 (Thursday-Friday)</td>
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<tr>
<td>December 8, 10-13 (Saturday-Thursday)</td>
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<td>December 15 (Saturday)</td>
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**Spring Semester 1991**

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<td>January 9 (Wednesday)</td>
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<td>January 21 (Monday)</td>
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<tr>
<td>March 18-22 (Monday-Friday)</td>
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<td>March 29 (Friday)</td>
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<td>April 29 (Monday)</td>
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<tr>
<td>April 30-May 1 (Tuesday-Wednesday)</td>
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<tr>
<td>May 2-7 (Thursday-Tuesday)</td>
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<td>May 10 (Friday)</td>
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**Summer Term 1991**

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<td>Second Session Begins</td>
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<tr>
<td>August 7 (Wednesday)</td>
<td>Second Session Ends</td>
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<tr>
<td>August 9 (Friday)</td>
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**NOTE:** Deadlines for degree requirements on pp. 25-26.
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32 Advertising
32 Agricultural and Extension Education
32 Agricultural Economics and Rural Sociology
32 Agricultural Engineering
32 Agriculture
32 Animal Science
32 Anthropology
32 Architecture
32 Art
32 Art and Music Education
32 Audiology and Speech Pathology
32 Aviation Systems
32 Biochemistry
32 Biomedical Sciences
32 Botany
32 Broadcasting
32 Business Administration
32 Chemical Engineering
32 Chemistry
32 Child and Family Studies
32 Civil Engineering
32 Classics
32 Communications
32 Comparative and Experimental Medicine
32 Computer Science
32 Curriculum and Instruction
32 Ecology
32 Economics
32 Education
32 Educational and Counseling Psychology
32 Educational Leadership
32 Electrical and Computer Engineering
32 Engineering Science and Mechanics
32 English
32 Entomology and Plant Pathology
32 Environmental Practice
32 Finance
32 Food Technology and Science
32 Forestry, Wildlife and Fisheries
32 Geography
32 Geological Sciences
32 Germanic and Slavic Languages
32 Health, Leisure, and Safety
32 History
32 Home Economics
32 Human Ecology
32 Human Performance and Sport Studies
32 Industrial and Organizational Psychology
32 Industrial Engineering
32 Interdisciplinary Programs
32 Journalism
32 Law
32 Library and Information Science
32 Life Sciences
32 Management
32 Management Science
32 Marketing, Logistics and Transportation
32 Materials Science and Engineering
32 Mathematics
32 Mechanical and Aerospace Engineering
32 Medical Biology
32 Microbiology
32 Music

Facilities for Research and Service

171 Bureau of Educational Research and Service
171 Center for Business and Economic Research
171 Center for Computer Integrated Engineering and Manufacturing
171 Center for International Education

172 Center for Measurement and Control Engineering
172 Centers of Excellence
172 Center for Laser Applications
172 Center for Livestock Diseases and Human Health
172 Center for Materials Processing Science Alliance
172 Waste Management Research and Education Institute
172 Communications Research Center
172 Computing Center

173 Energy, Environment, and Resources Center
173 Institute of Agriculture
173 Agricultural Experiment Station
173 Agricultural Extension Service
174 Libraries
174 Library and Information Science
174 Management Development Center
174 Off-Campus Graduate Centers
174 Kingsport University Center
174 Oak Ridge Resident Graduate Program
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174 Chattanooga Graduate Education Program
174 UT-OR Graduate School of Biomedical Sciences
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The University of Tennessee

Board of Trustees

Ex Officio Members

- The Governor of Tennessee
- The Commissioner of Education
- The Commissioner of Agriculture
- The President of the University
- The Executive Director, Tennessee Higher Education Commission

From Congressional Districts

DISTRICT | TERM EXPIRES
--- | ---
First | June 1, 1993
Second | June 1, 1995
Third | June 1, 1994
Fourth | June 1, 1996
Fifth | June 1, 1991
Sixth | June 1, 1993
Seventh | June 1, 1990
Eighth | June 1, 1994
Ninth | June 1, 1995

From Anderson, Bedford, Coffee, Franklin, Lincoln, Moore, and Warren Counties

TERM EXPIRES

- J. Steven Ennis
- Christopher C. Bridges

From Davidson County

Michael Graves

June 1, 1993

From Hamilton County

Paul J. Kinser

June 1, 1996

From Knox County

Donald M. Leake

June 1, 1995

James A. Haslam, II

June 1, 1995

From Shelby County

Sam Cooper

June 1, 1990

Jack Craddock

June 1, 1990

University Administration

- Lamar Alexander, B.A., J.D., President of the University
- Joseph E. Johnson, A.B., A.M., Ed.D., Executive Vice President and Vice President for Development
- Homer S. Fisher, B.S.S., M.B.A., Senior Vice President
- Michael T. Nettles, B.A., M.S., M.A., Ph.D., Vice President for Assessment
- D.M. (Pete) Gossett, B.S., M.S., Ph.D., Vice President for Agriculture
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- Charles M. Peccolo, Jr., B.S., M.Acc., CPA, CCM, Treasurer

UT, Knoxville Administration

- John J. Quinn, B.S., Ph.D., Chancellor
- Philip A. Scheurer, B.A., M.S., Vice Chancellor for Student Affairs
- Jack E. Williams, B.S., Associate Vice President for Development
- C. W. Minkel, B.A., M.A., M.B.A., Ph.D., Dean of the Graduate School
- Thomas C. Collins, B.S., M.S., Ph.D., Vice Provost for Research
- O. Glen Hall, B.S., M.S., Ph.D., Dean of the College of Agriculture
- J. William Rudd, B.A., M.A., Dean of the School of Architecture
- C. Warren Neel, B.S., M.B.A., D.B.A., Dean of the College of Business Administration
- Dean of the College of Communications
- Dean of the College of Education
- Dean of the College of Engineering
- Dean of the College of Human Ecology
- Dean of the College of Law
- Dean of the College of Liberal Arts
- Dean of the College of Nursing
- Dean of the College of Social Work
- Dean of Veterinary Medicine
- Dean of Continuing Education
- Dean of Admissions (Undergraduate) and Records
- Dean of the UT Space Institute
- Director of the UT-Oak Ridge Graduate School of Biomedical Sciences
- Director of the Graduate School of Library and Information Science
- Director of the Graduate School of Planning

From Weakley County

TERM EXPIRES

- James F. Harrison
- Christopher C. Bridges

Student Member

July 1, 1990

Officers of the Board

- Governor Ned McWherter, Chairman
- William M. Johnson, Vice Chairman
- Beauchamp Brogan, Secretary
- Linda Logan, Assistant Secretary
The Graduate School Administration

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

The Graduate Council

Membership September 1, 1989

Ex Officio Members
Dr. C.W. Minkel, Graduate Council Chairman
Dr. Sam Bills, Continuing Education
Dr. Wayne Davis, The Graduate School
Dr. Mildred Fenske, College of Nursing
Dr. William Grecco, College of Engineering
Dr. Glen Hall, College of Agriculture
Dr. Herb Howard, College of Communications
Dr. Charles Jackson, College of Liberal Arts
Dr. Roger Jenkins, College of Business Administration
Ms. Paula Kaufman, Dean of Libraries
Dr. Hyram Kitchen, College of Veterinary Medicine
Dr. Jim Moran, College of Human Ecology
Dr. Linda Painter, The Graduate School
Dr. Paul Phillips, Chairman of the Research Council
Dr. Gary Purcell, School of Library & Information Science
Dr. Glennon Rowell, College of Education
Mr. Jim Spencer, School of Planning

College or Unit | Elected Members | Expiration | Proxy
--- | --- | --- | ---
Agriculture | Dr. Fred Allen | Aug. 31, 1992 | Dr. J. L. Collins
Business Administration | Dr. Gary N. Dicer, Dr. C. Douglass Iizard | Aug. 31, 1990, Aug. 31, 1991 | Dr. John M. Wachowicz, Dr. Alan M. Schlottmann
Communications | Dr. Michael Singletary | Aug. 31, 1990 | Dr. Barbara Moore
Education | Dr. Charles Hargis, Dr. Charles Thompson, Dr. Patricia Beitel, Dr. Don Dessart, Dr. John Ray | Aug. 31, 1990, Aug. 31, 1991, Aug. 31, 1992, Aug. 31, 1992 | Dr. Andy Kozar, Dr. George Harris, Dr. Charles Faires, Dr. Joan Paul, Dr. Peter Husen
Engineering | Dr. Paul J. Phillips, Dr. Joseph J. Perona, Dr. J. Reece Roth, Dr. Paul N. Stevens | Aug. 31, 1990, Aug. 31, 1991, Aug. 31, 1992, Aug. 31, 1992 | Dr. Robert Counce, Dr. H.W. Hsu, Dr. Richard M. Bennett, Dr. Donald R. Pitts
Human Ecology | Dr. Carl Dyer | Aug. 31, 1990 | Dr. Randy Bresee
Nursing | Dr. Mary Lue Jolly | Aug. 31, 1992 | Dr. Barbara Brown
School Lib. & Inf. Sci. | Dr. Glenn Estes | Aug. 31, 1991 | Dr. William C. Robinson
School of Planning | Dr. Pat Fisher | Aug. 31, 1992 | Dr. David Johnson
Social Work | Dr. Cathy Fayer, Dr. James Orten | Aug. 31, 1992, Aug. 31, 1992 | Dr. Charles Gillison, Dr. Judith Fiene
UT Space Institute | Dr. Walter Frost | Aug. 31, 1991 | Dr. Atul Sheth
Veterinary Medicine | Dr. Terry Schultz | Aug. 31, 1991 | Dr. Michael H. Sims
### Majors and Degree Programs

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<th>DEGREE</th>
<th>GEN.</th>
<th>SUBJ.</th>
<th>GMAT</th>
<th>LETTERS OR</th>
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<th>LANGUAGE</th>
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*Non-degree and provisional students must obtain permission from the department/program head to register for courses in these fields.

*Available for the Academic Common Market to residents of reciprocal states. See fields of instruction.
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a International applicants only.
b American applicants only.
c G.S. Rating Form submitted to Department.
d Forms obtained from & returned to Department.
Rules, policies, fees, and courses described in this catalog are subject to change without notice.
The Graduate School

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

The University of Tennessee is the official land-grant institution for the State of Tennessee with its main campus in Knoxville. UT Knoxville is a comprehensive, research-oriented institution offering a wide range of graduate programs leading to the Master's and doctoral degrees. The University offers Master's programs in 85 fields and doctoral work in 52. Approximately 6,000 graduate students are enrolled on and off campus. Administration of graduate student policies and procedures, and associated record keeping, is the responsibility of the Dean of The Graduate School. Much of the day-to-day administration of graduate study is conducted by department heads or faculty advisors and committees responsible for particular programs. In addition to departmental units, numerous interdisciplinary programs, institutes and centers have been developed on campus and in locations throughout the state.

The Graduate School brings together faculty and graduate students as a community of scholars with a common interest in creative work and advanced study. 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 knowledge, and those pursuing postdoctoral research. Traditionally, universities have provided graduate programs primarily for full-time, degree-oriented students. Serving the needs of students engaged full-time in intensive study and pursuing of a degree continues to be a major emphasis of UT Knoxville's graduate effort. At the same time, the University employs a variety of modes, traditional and non-traditional, in offering quality programs designed to serve a diverse student clientele.

The policies of The Graduate School are developed by the Graduate Council, a body composed of elected representatives from each college, the Space Institute, and the Graduate Student Association. Ex-officio members include the Dean, Associate Deans of The Graduate School, the Chair of the Research Council, the Director of Libraries, the Dean of Continuing Education, and the administrative officer having primary responsibility for graduate curriculum in each college or school. The Graduate Office develops procedures to implement the policies formulated by the Council, and has primary responsibility for Graduate School admissions and records.

Graduate education has been conducted at The University of Tennessee since 1821. The first known Master's degree was awarded in 1827. In 1879 the Board of Trustees created a graduate department with authority to confer the Master of Arts, the Doctor of Philosophy, Civil Engineer, and Mining Engineer degrees. The Graduate Department was renamed The Graduate School in 1912. Although two Ph.D. degrees were awarded, in 1886 and 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 programs until the Graduate Council was formed in 1949. More than 5,700 doctoral degrees and 33,500 Master's degrees have been awarded to date.

Seven deans have led The Graduate School since 1936: Fred C. Smith, Eugene A. Waters, Dale K. Wantling, Hilton A. Smith, Jack E. Reese, Margaret N. Perry, and C. W. Minkel. They have strived to maintain the rich heritage and the highest quality of graduate programs at UT Knoxville.

Admission and Registration

Admission to The Graduate School requires a Bachelor's degree with a satisfactory grade-point average from a college or university accredited by the appropriate regional accrediting agency. Admission to The Graduate School does not ensure acceptance into a specific degree program nor admission to candidacy for the degree desired.

When a student is admitted to The Graduate School prior to having received the baccalaureate degree, that degree must be awarded before the date of first registration in The Graduate School. If a student does not enroll within one year after the requested admission, the application process must be repeated.

Types of Admissions

To earn graduate credit, a student must be enrolled in one of the categories listed below. Coursework taken in any other status is unacceptable for graduate credit and cannot be changed to graduate credit.

ADMISSION TO A GRADUATE DEGREE PROGRAM

Admission to a degree program requires a minimum grade point average of 2.5 out of a possible 4.0, or a 3.0 during the senior year of undergraduate study. However, many departments require a higher average. The equivalent of a minimum B average is required for international students.

The graduate application, a $15 fee, and one (1) official transcript from each institution previously attended are required for consideration as a potential degree candidate. Note: The fact that courses completed at one institution may be included on a transcript from another institution will not suffice; official transcripts must be received from each institution previously attended.
In addition to meeting the minimum requirements for admission to The Graduate School, applicants at the doctoral level must have demonstrated a potential for superior academic performance. To be considered are applicants whose capabilities, and other evidence of scholarly achievement. Refer to pages 8-9 and to descriptions of programs for specific requirements for admission.

NON-DEGREE ADMISSION

Applicants may apply for non-degree status who, for example:
1. do not desire to pursue a degree program; or
2. need additional time to fulfill application requirements for a degree program.

There is no specific limit on the number of courses that a student may take in non-degree status. However, before accumulating 15 hours of graduate coursework in this status, the student must achieve:
1. apply and be admitted to a specific degree program (see Change of Program for specific requirements for admission);
2. file a Plan of Study form with the Office of Graduate Admissions and Records for approval to continue taking courses in non-degree status. The plan of study must include a stated educational objective and a list of courses proposed to achieve that objective.

A maximum of 15 graduate hours taken before acceptance into a degree program 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.

The graduate application, a $15 application fee, and one (1) official transcript from each institution previously attended are required for consideration as a non-degree student. Note: The fact that courses completed at one institution may be included on a transcript from another institution will not suffice; official transcripts must be received from each institution previously attended. The minimum requirements are a Bachelor's degree with a 2.5 grade-point average on a 4.0 scale (or a 3.0 the senior year) from a college or university accredited by the appropriate regional accrediting agency. A major area need not be declared, but some departments do not permit non-degree students to register for graduate courses (see pages 8-9 for information on restricted programs).

An international student on a non-immigrant visa may not enroll in the non-degree status.

PROVISIONAL ADMISSION

Applicants may be admitted as provisional students for one semester (or for one course in each of two semesters) who, for example:
1. do not meet the minimum grade-point average requirements; 
2. wish to register for graduate courses while meeting additional requirements for non-degree admission; or
3. desire graduate credit for a limited number of courses (one semester only).

The graduate application, a $15 application fee, and one (1) official transcript from a college or university accredited by the appropriate regional accrediting agency are required. Copies of official proof are acceptable. A major area need not be declared, but some departments do not permit provisional students to register for graduate courses (see pages 8-9 for information on restricted programs).

Every graduate student must meet with an academic advisor at least once each semester to discuss his/her program. For 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 provisional student who has declared a major, the Associate Dean of The Graduate School or designee is the advisor.

Any student admitted to the provisional status who has exceeded six hours of graduate credit must receive permission from The Graduate School to register for a second or succeeding semester if admission to the non-degree or degree status has not been obtained. To be admitted to a non-degree or degree status, the student must earn at least a 3.0 grade-point average in all coursework (graduate and undergraduate) taken in provisional status, to include at least six hours of graduate work. Provisional students failing to meet this requirement will be denied registration.

The Office of Graduate Admissions and Records will process the change to non-degree status if all requirements are met. To apply for a specific degree program, the student must submit the Request for Change of Graduate Program form to the Office of Graduate Admissions and Records.

Provisional admission does not assure admission to a non-degree or degree program. A student who hopes to enter a degree program will be directed to the appropriate department.

The student who fails to complete provisional admission within seven weeks after registration will NOT be permitted to register again. NOR receive a copy of the transcript showing the coursework taken, until all admission requirements are met.

An international student on a non-immigrant visa may not enroll in the provisional status.

INTERNATIONAL STUDENT ADMISSION

The Graduate School accepts only students who have superior records. An international student must have an equivalent 4-year Bachelor degree with at least a B average on undergraduate course work and a B+ on all previous graduate work. On various grading scales, this would indicate:

- 3.0 and 3.5 on a 4.0 scale;
- 14 and 15 on a 20 point scale;
- 80.0 from Chinese institutions;
- 1st Class or Division from Indian institutions;
- Upper 2nd Class Honors on various British systems.

Other grading systems will be evaluated upon receipt of unofficial transcripts. An international student may apply for admission any semester, but normally enters the summer or fall semester. Deadlines for submission of applications are:

Fall 15 March
Spring 15 July
Summer 15 November

The Office of Graduate Admissions and Records must receive a copy of the transcript, showing the coursework taken, until all admission requirements are met. Individual departments and colleges may have further restrictions on admission dates. For this information, students should contact the department whose program they wish to enter. The following items must be received before admission will be considered:

1. A completed application form with a $15 non-refundable processing fee. Payment should be made in United States dollars by either a cashier's check, money order, or a personal check. If payment is by personal check, the check 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.
2. Official or attested university records, with certified translations if the records are not in English. (Notarized copies are not acceptable).
3. Certification of English proficiency. Every student whose native language is not English must either submit a score of 525 or above on the Test of English as a Foreign Language (TOEFL), taken within the past two years, or have received a degree from an accredited U.S. institution.
4. Documented evidence of financial resources sufficient to support the student as stated on the financial statement form supplied to the applicant.
5. Results of the Graduate Record Examination (GRE) or Graduate Management Admission Test (GMAT), if required. (See pages 8-9.)
6. Letters of recommendation or rating forms, if required. (See pages 8-9.)

Admission must be granted and financial documentation and degree confirmation must be received prior to issuance of an I-20 or an IAP-66 form needed to obtain a visa. The Graduate School will not issue these forms after the following dates:

Fall 15 June
Spring 1 November
Summer 15 March

The University will not enroll any student who has not been approved initially or for transfer by the Immigration and Naturalization Services (INS) to attend UT Knoxville.

An international student may not enroll as a provisional or non-degree student. All students whose native language is not English must take an English proficiency examination after arrival at UT Knoxville. Refer to section on English Proficiency.
TRANSIENT GRADUATE STUDENT ADMISSION

A student who has been enrolled in a graduate degree program at another institution and who wishes to take courses for transfer to that institution may be admitted after submitting a completed Graduate Application for Admission, the $15 application fee, and a Transient Student Certification 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 Admissions and Records.

ELIGIBILITY OF SENIORS

Subject to approval by The Graduate School, a senior at UT Knoxville who needs fewer than 30 semester hours to complete requirements for a Bachelor's degree and has at least a B average (3.0) 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. Approval must be obtained each semester at the Office of Graduate Admissions and Records. The student's advisor must approve in advance the student's enrollment in each course.

ENROLLMENT OF VETERINARY MEDICINE STUDENTS IN GRADUATE COURSES

A student in good standing in the College of Veterinary Medicine may enroll in UT Knoxville graduate courses without being admitted to The Graduate School under the following conditions:

1. The student's advisor must approve in advance the student's enrollment in each course.
2. The student may take a maximum of 10 semester hours of graduate courses during the D.V.M. program.
3. Approval must be obtained each semester at registration through the Office of Graduate Admissions and Records. The student's progress is subject to review and approval each semester by the Associate Dean, College of Veterinary Medicine.

ADMISSION OF FACULTY MEMBERS

Faculty members of UT Knoxville or the Institute of Agriculture at the rank of assistant professor or above, and members of the administrative staff at UT Knoxville, the UT Central Administration, and the Institute of Agriculture will not normally be admitted to an Ed.D. or Ph.D. degree program at UT Knoxville. Exceptions may be granted on an individual basis upon petition to 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. Requests should be directed to the Vice Provost and Dean, The Graduate School.

Admission Procedures

Anyone with a Bachelor's degree from a regionally accredited institution who wishes to take courses for graduate credit, whether or not the person desires to become a candidate for a degree, must make formal application for admission to The Graduate School or apply for transient status. No action is taken until a file is completed. The applicant will be notified by mail of the action taken.

To apply for admission the following materials must be sent to The Graduate School:

1. The completed Graduate Application for Admission (inside front cover of Graduate Catalog).
2. A $15 non-refundable application fee.
3. One official transcript from all colleges and universities attended.
4. Reference letters or rating forms, when required. See pages 8-9. Forms obtained from the college or department should be returned to the same source.
5. Scores from examinations which may be required for admission. Graduate programs which require scores from the Graduate Record Examination or the Graduate Management Admission Test are shown on pages 8-9. The TOEFL is required of all students whose native language is not English, unless they have graduated from a regionally accredited U.S. institution.

Application forms for the above tests can be obtained by writing:

Educational Testing Service
Princeton, NJ 08540

UT Knoxville is an approved testing center for all examinations. Examination results reach the University in approximately six weeks.

The student who fails to gain admission within seven weeks after registration will NOT be permitted to register again until all admission requirements are met.

All of the above documents become the property of the University and will not be returned. For international graduate student admission procedures, see International Student Admission.

Readmission

A student who has not attended The Graduate School at UT Knoxville for more than three semesters (including summer) must apply for readmission. A readmission application should be submitted to the Office of Graduate Admissions and Records at least two weeks prior to the desired reentry date. A student who has attended another institution since enrollment at UT 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 Graduate School. A student who is permitted to enroll and is subsequently denied readmission will receive credit for courses completed successfully.

Future registration will not be allowed until readmission is granted.

Registration Procedures

Registration is required of all graduate students when enrolling in University facilities and/or faculty time. The minimum number of hours for registration is 3. Registration allows use of services such as library checkout, laboratories, and recreation facilities not open to the public.

Dates of registration are published in the Graduate School News each term. Registration is scheduled during each semester for a subsequent semester. Any graduate student who has applied for admission can register. A schedule is mailed to the local address and a change of registration period is held toward the end of the term. A late registration period is held normally two days prior to the beginning of classes. A late fee of $15.00 is assessed to any student in attendance at the University who fails to register early for the following semester(s). A student who participates in regular registration must obtain the computerized class schedule and pay fees on the first day of the term.

Additional information can be obtained from the Office of Graduate Admissions and Records.

Failure to pay tuition and fees before the deadline listed each semester in the Timetable of Classes will result in the assessment of a late registration fee. Retroactive registration is not permitted.

To register, students should:
1. Report to the Office of Graduate Admissions and Records to obtain registration materials (scan form and Timetable of Classes).
2. Confer with an advisor assigned by the department to obtain approval of a schedule of courses. If not done previously.
3. Sign the scan form showing approval of the advisor and return it to the Office of Graduate Admissions and Records or alternate location designated in the Timetable.
4. Consult Timetable to complete registration.

Non-degree or provisional students in unrestricted programs (see pages 8-9) may obtain permission to register from the department/program head to register for courses in restricted fields.

Family Educational Rights and Privacy Act

The Family Educational Rights and Privacy Act provides for confidentiality of student records. However, it also provides for basic identification of persons at UT Knoxville without the consent of the individual. Release of information to third parties includes directory information such as contained in the campus telephone book and sports brochures. Such information may include name, address, telephone number, date and place of birth, major, dates of attendance, degrees and awards, the most recent educational agency or institution attended, participation in school activities and sports, and weight and height (for special activities).

Notice of the categories to be contained in a publication will be given in advance. A period of one week is provided during which a student may request that such information not be released.
Student Identification Number

UT Knoxville requires assignment of an individual student number for internal identification of each student's record. The University began using the social security number as the student identification number prior to 1 January 1975; therefore, federal law allows continued use of this number. However, if a student does not desire to use the social security number, notification to the University must be made at the time of application for admission. A student identification number will then be assigned instead. For prompt and accurate retrieval of records and for conducting business about their own records, students and alumni must give their student identification number. Student identification numbers, whether social security numbers or assigned numbers, are used administratively within the University only and are not given to third parties without expressed consent of the student.

Fees, Residency Classification, and Financial Aid

University Fees

University fees and other charges are determined by the Board of Trustees and are subject to change without notice. All student fees are due at the beginning of the term. 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 are required to have a validated fee receipt to complete the registration procedure. This includes graduate assistants, teaching assistants, teaching associates, graduate research assistants, staff, and others whose fees may be billed, prepaid, or waived. Delayed registration service fees are also applicable to such students. No student is authorized to attend classes who has not obtained a computerized class schedule and a validated fee receipt.

The University is authorized by statute to withhold diplomas, grades, transcripts, and registration privileges on any student until student debts and obligations (other than Student Loan Fund notes which have not matured) owed to the University are satisfied. The general fees for graduate students in effect at the time of publication are as follows:

APPLICATION FEE ........................................... $15

Each graduate application for admission must be accompanied by a non-refundable fee of $15 before it will be processed (fee not required if: (1) former UT Knoxville graduate student; or (2) previously paid to UT Knoxville Graduate School within past 12 months).

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 $15 application fee and a new application. This fee is not refundable.

MAINTENANCE FEE (in-state students)

PER SEMESTER ........................................... $855

MAINTENANCE AND TUITION (out-of-state students)

PER SEMESTER ........................................... $2,331

NOTE: In lieu of the above amount for tuition and/or maintenance fee, part-time students may elect to pay fees computed by the semester hour credit (or audit) as follows:

In-State

$124 per semester hour or fraction thereof; minimum charge $248.

Out-Of-State

$270 per semester hour or fraction thereof; minimum charge $540.

UNIVERSITY PROGRAMS AND SERVICES FEE

PER SEMESTER ........................................... $105

All students enrolled in excess of eight semester hours per term are assessed an activity fee of $105. Part-time students taking fewer than nine semester hours will be assessed at the rate of $7 per semester hour or fraction thereof; minimum charge $14.

Graduate, teaching, and research assistants, teaching associates, and fellowship students, who may have waiver of fees (tuition and/or maintenance fee) must pay the appropriate University Programs and Services Fee and late payment fee, if applicable.

Knoxville campus students taking a course load of 6-8 hours may elect to pay the full programs and services fee.

Knoxville campus day students taking a course load of 5-8 hours may elect to pay the student health fee ($30), plus the appropriate part-time programs and services fee. The student health fee is included in the full $105 programs and services fee.

The University programs and services fee is not refundable.

The fee for the summer term is $59.

LATE PAYMENT FEE

Graduated Late Service Fee

Upon receipt of a schedule (full, partial, or incomplete) a student is registered and is immediately responsible for payment of fees. Students who register early for a semester must pay their fees (or make satisfactory arrangement with the Bursar's Office) on the two business days prior to the beginning of classes, in order to avoid late payment service charges. Beginning the first day of classes, a graduated late service fee of $2 per day will be charged during the next ensuing five regular business days.

Students who register through late registration will be charged a second additional $10 late service fee (total $20).

In-State

MAINTENANCE FEE ........................................... $70, and may, at the discretion of the University, be withdrawn from school and assessed the appropriate fees as of the date dropped.

A $10 late fee is applicable to extension accounts and room and board charges which are not paid (or deferral arrangements made) within seven calendar days after the date payment was due. Doctoral students who must register retroactively for dissertation credit will be charged a late fee of $35 for each semester of retroactive registration.

Failure to pay fees or to make satisfactory arrangements for deferment will result in the assessment of appropriate fees and forfeiture of all University services, including the receipt of grades, transcripts, and schedule of classes. After grades are withheld, the reinstatement fee is $45.

LATE REGISTRATION FEE ................................ $15

Students who do not register during the preceding semester will be charged a $15 late registration fee.

RETURNED CHECK SERVICE FEE POLICY

During registration check-in days, all checks are deposited the day they are received. A $10 service charge will be assessed when checks fail to clear the bank on which drawn. In addition, if the returned check is in payment of initial fees and charges, the late payment fee in effect at the time the check is redeemed (minimum charge - $20) will be added to the returned check service fee. Returned checks will not be redeposited. Cash or certified funds are required for payment of the returned check, late fee, and service charges.

Any student who does not respond within seven days from the date of the first notice will be assessed an additional $10 Service Fee.

For other returned checks the service charge will be $10 if the check is made good within seven days from the date of notice and $20 if made good after seven days.

Failure to clear returned checks will result in the forfeiture of all University services, including the receipt of grades, transcripts, and schedule of classes.

MUSIC FEE

One half-hour lesson per week per semester ................ $90

Payable at registration by students receiving individual instruction in music.
GRADUATION FEE
Master's degree candidates ........................................ $30
Doctoral degree candidates ......................................... $75
Doctoral hood rental (optional) .................................... $5

There are no additional charges for diploma, binding, or microfilming. The graduation fee is non-refundable and is valid for two semesters after the semester in which it is paid.

PROFICIENCY FEES
Fees for proficiency examinations are $7 per credit hour for graduate students. See Proficiency Examinations for additional information.

TUITION PAYMENT PLANS
All student fees should be paid in full at registration check-in each semester.

Prepayment Plan
A prepayment plan has been developed to assist students and/or parents with planning and budgeting their academic year expenses. Under the plan, students and/or parents may choose the expenses they wish to prepay including room, board, tuition, and fees. Expenses may be prepaid over a period of eight months. Students and/or parents wishing to participate in the prepayment plan should contact the Bursar's Office for details.

Deferred Payment Plan
Although fees, rent, and other university expenses are due and payable at the beginning of each term, a full-time student in good financial standing with a definite anticipated source of funds may request the deferral of up to 50% of the total charges at registration check-in. The deferred payment may be divided into two equal payments payable on the 28th and 56th day of the term. All financial aid monies must be applied toward fees before a deferral will be considered. A deferred payment service fee of $10 is assessed when any portion of tuition, fees, and other charges are deferred with the approval of the Bursar's Office. An additional $25 late payment charge will be assessed on each payment which is not paid on or before the due date. For more details, contact the Bursar's Office.

Room and Board Payment Plan
Semester room and board charges may be paid in monthly installments. The first month's rent plus a deposit of one month's rent is due at registration check-in. The remaining installments are due every four weeks. For more information and an application, contact the Bursar's Office.

DEFERRED PAYMENT SERVICE FEE .... $10
(See Tuition Payment Plans)

This fee is applicable when the payment of any part of a student's account is deferred, including accounts which must be billed to outside agencies, organizations, and institutions. This fee is also applicable when any additional charge (out-of-state tuition, music fee, room and board adjustment) is not paid within five regular business days after the date it was incurred. It is the student's responsibility to take the initiative to pay all University obligations promptly.

LATE PAYMENT SERVICE FEE ............... $5

This fee is applicable when a supplemental charge (tuition, room and board adjustments, etc.) is not paid within seven calendar days after the date it is incurred. Students are expected to take the initiative to pay all University obligations promptly. The $10 deferred payment service fee will be added if it is necessary for the Bursar's Office to send a notice regarding non-payment of the adjustment.

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 one-hour courses.

REFUND OF FEES FOR WITHDRAWAL
After a schedule has been received by the student, withdrawal for the semester must be by official notification to the Withdrawal Office. 212 Student Services Building, whether or not fees have been paid, if classes have been attended, or the schedule is incomplete. Failure to attend class does not automatically withdraw or drop a student from college or class.

The effective date of withdrawal is the date the Withdrawal Office is notified by completion of the official withdrawal request form. The appropriate percentage of fees will be charged unless this action is completed by the close of the last day of the five-day registration check-in and before the first official day of classes for the semester. Failure to notify the Withdrawal Office promptly when withdrawing could result in a larger fee assessment. Withdrawals taken after the drop deadline will not cancel fees and charges already incurred.

The drop/add procedure may not be used to withdraw from school for the semester.

For a regular academic semester, withdrawal within 5 business days beginning with the first day following registration check-in permits a 90 percent fee refund. Withdrawal between 6 and 10 business days following registration check-in permits an 80 percent fee refund. Withdrawal between 11 and 15 business days following registration check-in permits a 70 percent fee refund. Withdrawal between 16 and 20 business days following registration check-in permits a 60 percent fee refund. Withdrawal between 21 and 25 business days following registration check-in permits a 50 percent fee refund. Withdrawal between 26 and 30 business days following registration check-in permits a 40 percent fee refund. The above withdrawal refund policy does not apply to the off-campus Graduate Centers. Refunds, in accordance with the withdrawal refund policy, will be made after the drop deadline. If financial aid has been received for the term, the refund will be applied to financial aid repayment first before the student receives any refund.

REFUND OF FEES FOR DROPPED COURSES
Part-time students may pay fees computed at the appropriate semester-hour rate as indicated above. No charge is made for courses dropped during the first 8 business days following registration check-in. A 20 percent charge is made for courses dropped between 9 and 10 business days following registration check-in. A 40 percent charge is made for courses dropped between 11 and 15 business days. A 60 percent charge is made for courses dropped between 16 and 20 business days. A 100 percent charge is made for courses dropped after 20 business days. Students who drop courses are eligible for a refund only if the sum of the 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 that has been dropped, and the drop becomes effective, on the date that the charge of registration form is processed on a drop/add terminal. Any refund due for dropped courses will be made after the final audit at the end of the semester.

Rental charges and adjustments will be determined by the Office of Residence Halls in accordance with the terms of the housing agreement or contract.

SUMMER TERM FEES AND EXPENSES
Fees and expenses for the summer semester are due no later than the drop deadline. There are no special drop deadlines for the summer semester.

WAIVER OF FEES
Graduate assistants, teaching assistants and associates, research assistants, and others whose fees are billed, prepaid, waived, or partially waived must complete their registration with the Bursar's Office, where they should have their fee receipt authorized. Waiver requests are evaluated on a case-by-case basis and are determined by the Office of Student Services Building, whether or not fees have been paid, if classes have been attended, or the schedule is incomplete. Failure to attend class does not automatically withdraw or drop a student from college or class.

STUDENT HEALTH INSURANCE
The University makes available, by contract with an insurance company, group health insurance expressly for students. The program is designed to supplement the care provided by the campus Student Health Service and provide basic benefits at low group premium rates. Primary 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 payment for hospital care is the student's own responsibility.

Information about the insurance is mailed 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 or the Center for International Education. Except for international students, enrollment for insurance is not a part of registration for classes. NOTE: The family health insurance policy should be carefully reviewed since most family policies do not cover the dependent child after a given age, some as early as nineteen.
IDENTIFICATION CARD

ID cards, issued during registration check-in or anytime during the year to all students, are prepared during registration check-in of the first semester and may not be duplicated. A current valid fee receipt is necessary to obtain a new or replacement ID card. IDENTIFICATION CARDS MUST BE CARRIED AT ALL TIMES FOR PURPOSES OF IDENTIFICATION. Lost or stolen cards should be replaced by contacting the Student ID Card Office at Room 344, University Center. There is a minimum charge for replacement or duplicate ID cards.

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.

Residency Classification for Tuition Purposes

When a prospective student applies to The Graduate School, he/she is notified of residency classification (in-state or out-of-state) for tuition purposes. Classification is based on information supplied on the Graduate Application for Admission. A student cannot acquire in-state residency status on the basis of full-time enrollment at a higher educational institution in Tennessee. Proof of in-state residency is the responsibility of the individual.

A student who is classified out-of-state and (1) works full-time in the state or at Fort Campbell, Kentucky, and (2) desires to attend UT Knoxville on a part-time basis (maximum 6 hours of coursework per semester), is eligible for a waiver of out-of-state tuition. The student must apply for a waiver prior to the date of registration each semester. Forms are available from the Residency Assistant in the Office of Graduate Admissions and Records.

A student wishing to appeal a residency classification should contact the Residency Assistant, who will provide an application for reclassification and a copy of the State regulations. The application must be submitted on or before the last day of registration for a given semester, if the student is to be considered for reclassification that semester.

Academic Common Market

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

Cooperating states in the Academic Common Market are Alabama, Arkansas, Florida, Georgia, Kentucky, Louisiana, Maryland, Mississippi, Oklahoma, South Carolina, Tennessee, Texas, Virginia and West Virginia. Twenty doctoral, one Specialist in Education, and twenty-seven Master's programs at UT Knoxville are approved by the Academic Common Market for residents of these states to enroll in in-state tuition rates. Residents of member states who seek further information should contact the Residence Assistant in the Office of Graduate Admissions and Records or the Southern Regional Educational Board, 590 Tenth Street, N.W., Atlanta, GA 30318-5790.

Financial Aid

UT Knoxville offers several types of financial assistance for which graduate students may apply.

ASSISTANTSHIPS AND FELLOWSHIPS

Graduate assistantships, scholarships, and traineeships are offered through many departments. Information concerning these types of assistance can be obtained from the department in which the student plans to study.

The Hilton A. Smith Graduate Fellowships and the National Alumni Association Graduate Fellowships for full-time study at UT Knoxville are awarded on the basis of scholarly performance as evidenced by grades and recommendations. Candidates from any field of study are invited to apply if they have a 3.6 grade-point average or above in all previous academic work. The Hilton A. Smith fellowships include monthly stipends, tuition and maintenance fees. The National Alumni fellowships include a stipend presented at the beginning of each semester (Fall and Spring). Application packets are available from November through January in the Office of Graduate Admissions and Records. Completed applications, including all supporting materials, must be submitted to the Staff Assistant, Office of Graduate Admissions and Records, by February 15. Offers of awards are announced March 15.

EMPLOYMENT

Three sources of student employment are coordinated by the Financial Aid Office: (1) The federally-sponsored College Work-Study Program provides part-time on-campus jobs for U.S. citizens or permanent residents who have demonstrated financial need by the Financial Aid Form (FAF) or Family Financial Statement (FFS). A wide range of jobs are available in academic units and administrative offices; (2) Job Location and Development lists off-campus, part-time job opportunities with agencies and companies throughout the Knoxville area. Job interviews and minimal processing are required. Off-campus jobs are limited to U.S. citizens or permanent residents; (3) On-campus, part-time job opportunities are listed by the Student Employment Service. This listing of part-time jobs is based upon requests from on-campus agencies. Referrals are made in accordance with a student's skills and interests regardless of financial need.

Students needing either part-time or summer employment are urged to contact the Financial Aid Office.

LOANS

Four types of loan programs are administered by the Financial Aid office: 1) Perkins Loan, formerly National Direct Student Loan, (FAF or FFS must be on file); 2) Stafford Loan, formerly Guaranteed Student Loan, (FAF and FFS must be on file with appropriate Stafford Loan forms); 3) PLUS/SLS Loan (requires appropriate loan papers on file and SLS requires that the FAF or FFS be on file); and 4) The University of Tennessee Loan. Processing time varies from one loan program to another. Interested students should contact the Financial Aid Office for more information.

Students must apply through the Financial Aid Office for all loan programs. Loans are limited to U.S. citizens or permanent residents. Students must be admitted into a degree program to be eligible for loans.

Students who have attended any other post-secondary institution, other than UT Knoxville, must provide a Financial Aid Transcript to the Financial Aid Office even if no financial aid was received from the previous institution.

Students receiving financial aid are expected to maintain financial aid program standards to remain eligible to receive aid.

Information on these standards, applications, and additional information are available from the Financial Aid Office, 115 Student Services Building.

VETERANS' BENEFITS

Veterans, and widows or children of certain deceased or disabled veterans, who have been admitted to a degree program can apply for benefits by contacting the Veterans Affairs Office. Maximum benefits are paid by the Veterans Administration for course loads of 9 or more graduate hours each semester.
RESIDENCE HALLS

The Department of Residence Halls provides housing on-campus for single graduate students. Graduate students are given the same priority for housing as undergraduate students. All of the residence halls are conducive to academic achievement and personal development. However, many graduate students choose to live in Melrose or the Apartments Residence Halls since they remain open between the Fall and Spring semesters. Melrose Hall is arranged into smaller communities of six to ten students with personal responsibility emphasized. The Apartments Residence Hall provides apartment-style living for four students. It is the responsibility of each resident to maintain the apartment to University standards. Applications and further information can be obtained from the Department of Residence Halls at 405 Student Services Building.

A limited number of Assistant Hall Director positions are available for single graduate students. This position assists the Hall Director in coordinating and supervising all aspects of the hall operation. This is a live-in position with part-time responsibilities on a nine-and-a-half month contract. For additional information, contact the Department of Residence Halls at 974-2571.

Vehicle Operation and Parking

The University of Tennessee endeavors to provide adequate facilities for vehicles operated by students and staff. However, areas available for parking are necessarily limited. To reduce traffic congestion within the campus area, large student parking areas are located on the perimeter of the campus. Presently, free bus service is provided from the Main Campus to the Agricultural Campus and Perimeter Lot located off Concord Street behind Tyson Park. Also, bus service is provided to Married Student Housing, The Varsity, and The Coliseum. A limited number of Handicapped Student Services are available to Married Student Housing residents to maintain the apartment to University standards.

Handicapped Student Services Office and to become involved with the Association of Disabled Students. Please contact the office at 800 Volunteer Blvd, Knoxville, TN 37996-4250, (615) 974-6087 Voice or TDD.

Ombudsman Office

Personnel of the Ombudsman Office in the University Center assist students in the resolution of problems encountered with any aspect of the University. The office is open during the regular working day and students are welcome to drop in at their convenience. Problems are treated confidentially and are dealt with expeditiously. The office does not replace existing structures but helps to ensure their responsiveness to student needs.

General Regulations of The Graduate School

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 with the major department, to other departments and to The Graduate School. The advisor must approve the student's program each semester. Many departments assign 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 interest. The Office of the Dean of Admissions and Records assists students in the scheduling of special class sections to respond to the particular needs of the physically handicapped.

The Office of Handicapped Student Services is eager to assist all students who need accommodations and/or support services due to a physical or sensory impairment. To adequately accommodate each student, especially hearing-impaired students, it is in the individual's best interest to contact the office a month prior to the semester enrolled.

The following services and accommodations are available: interpreters, recorded texts, readers, facility accessibility, liaison with faculty/staff, equipment, transportation, acquisition for elevator keys, and special parking.

Students are encouraged to visit the Handicapped Student Services Office and to become involved with the Association of Disabled Students. Please contact the office at 800 Volunteer Blvd, Knoxville, TN 37996-4250, (615) 974-6087 Voice or TDD.

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.

Course Listings

Each course listing in the Graduate Catalog contains information in abbreviated form. The course number indicates the level at which the course is taught. All 500-600 level courses are graduate courses. The 400 level courses are open to graduate students only if space is available for graduate credit only if listed in the Graduate Catalog. To receive graduate credit for these, a student must make an indication of the registration material.

The official course title appears following the course number. Numbers in parentheses following the course title indicate the semester hours credit. If the credit is variable, to be determined in consultation with the instructor, the minimum and maximum are shown (e.g. 2-3). The credit hours are followed by a course description indicating the content to be covered.

Prerequisite courses must be taken prior to the course in question. Corequisite courses may be taken prior to or concurrently with the specific course. Recommended prerequisites should be taken previously but are not mandatory.

Some courses may be repeated for a maximum number of hours allowable toward a degree program. This number is stated foreareat repeatable course with the exception of Thesis 500, Dissertation 600, and Registration for Use of Facilities 502. Courses may be cross-listed with two or more departments, an arrangement indicated by a parenthetical statement: (Same as Psychology 543). The course description is given only under the primary department.

"S/CN" indicates that the course may be taken only for Satisfactory/No Credit grading. Refer to section on Grading System.

A symbol indicating the semester or frequency that the course is normally offered is included at the end of many course descriptions: F-Fall, S-Spring, Sp-Spring A-Alternate years, Su-Summer.

These codes are indicated only for Knoxville campus classes and are subject to change without notice. The Timetable of Classes, published several weeks prior to each semester, is the official notification of courses offered for a specific semester. Students should contact the appropriate department/program head concerning courses to be offered in future semesters.

Course Loads

The maximum load for a graduate student is 15 hours, and 5 to 12 hours are considered a full load. For students holding an assistantship, refer to the Policy for the Administration of Graduate Assistantships for the appropriate
course load. For the summer term, graduate students may register for a maximum of 12 semester hours in an entire summer term or for a maximum of 6 semester hours in a 5-week summer session. Students may enroll in only one course during a mini-term session. Students receiving financial aid should consult with the department/program head concerning appropriate course loads. Courses audited do not count toward minimum graduate hours required for financial assistance.

Registration for more than 15 hours during the Fall or Spring semester is not permissible without prior approval of The Graduate School, which may allow registration of up to 18 hours during a semester if the student has achieved a cumulative grade-point average of 3.6 or better in at least nine hours of graduate work with no outstanding incompletes. No more than 12 hours are permissible in the summer term without prior approval.

Change of 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 during the first fifteen calendar days after the beginning of classes.

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.

The deadline for change of registration (e.g. from graduate to undergraduate, undergraduate to graduate, withdrawal) is approximately 35 calendar days after the first day of classes each semester. (See Graduate School News each term for exact date.) A student may change registration for a course at any time prior to and including this date by executing a change of registration form and submitting it to the Office of Graduate Admissions and Records. The student must sign the form certifying approval of the change. The petition is required to add a course if the course is closed and/or after the first two weeks of classes. If the student withdraws from a course or from the University after the first fifteen calendar days of classes and before the change of registration deadline, a grade of W will be entered on the permanent record.

Course registration may not be changed from credit to audit or audit to credit after the first fifteen calendar days after the beginning of classes.

After the change of registration deadline, a student withdrawing from a course or from the University will receive a grade of F unless it can be demonstrated that economic hardship was the only reason for withdrawal.

Applications for proficiency examinations are available in the Office of the Registrar, 209 Student Services Building. To be eligible, a student must be admitted to The Graduate School. 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 they have 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. If the student withdraws from one-fourth of the total credit hours in a Master's degree program may be earned by this method, subject to the approval of 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

Any student whose native language is not English must present a TOEFL score of at least 525 unless he/she has received a Bachelor's or Master's degree from an accredited institution in the United States. Some departments require a higher minimum TOEFL score. The student must also 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 Foreign Students (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 6 additional hours of course work while enrolled in English 121. Those 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 taking the course.

Persons 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 by the Learning Research Center. Scores on the Test of Spoken English (TSE) may be accepted in place of the SPEAK Test.

Minors

A minor is an academic area or set of interrelated courses secondary to the major, normally consisting of a specified number of hours. A minor differs from a concentration in that it is not a subdivision of the major. For the Master's degree at UT 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.

Two interdisciplinary minors are available, at the Master's and doctoral levels, in Statistics (Business Administration) and in Gerontology (Human Ecology). See Fields of Instruction for specific requirements and approval provisions.
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.

Law Courses

A graduate student may take up to 6 semester 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 an S/N/G grade. If the student earns a 2.0 or better, an S will be recorded on the transcript. Below 2.0, an NC 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 J.D.-MBA program. Grades must be earned according to the grading system of the respective college, e.g., numerical grades for law courses, letter grades for graduate courses. Refer to page 55 for grades acceptable to meet degree requirements. Only one cumulative GPA (law or graduate) will be carried on the student's transcript until graduation, at which time both the graduate and law cumulatives will be added to the permanent record.

A student enrolled in the Ph.D. in Business Administration program may use 8 semester hours or more of law courses for the supporting area under the arrangement described on page 55.

Correspondence Study

No graduate credit is accepted at UT Knoxville for work done by correspondence study at any university.

Transfer Credits

Official transcripts must be sent directly to the Office of Graduate Admissions and Records from all institutions previously attended before any transfer of credit will be considered.

To be transferred into a graduate program at UT Knoxville, a course must:
1. be taken for graduate credit;
2. carry a grade of B or better;
3. be a part of a graduate program in which the student had a B average (i.e., 3.0/4.0 scale);
4. not have been used for a previous degree; and
5. be approved by the student's graduate committee and 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 500- 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 and/or foreign institution.

MAster's Degree

A minimum of one-half of the total hours required for a Master's degree must be taken at UT Knoxville. A maximum of one-third of the total hours may be transferred from institutions outside The University of Tennessee system upon request by the academic unit. In addition, the student may transfer courses taken at other campuses of The University of Tennessee.

Transferred courses must have been completed within the six-year period prior to receipt of the degree. They will be placed on the student's UT Knoxville transcript only after admission to candidacy.

Ed.S. Degree

A maximum of six semester (nine quarter) hours of coursework beyond the Master's degree may be transferred to an Ed.S. program. Transferred courses in the last 30 hours taken for the degree must have been completed within the six-year period prior to the receipt of the degree. They will be placed on the student's UT Knoxville transcript only 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, they are not officially transfer courses and are not placed on the student's UT Knoxville transcript.

Change of Program

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 from the Office of Graduate Admissions and Records. The form requires the signature of the head of the department which admission was previously granted. No signature is needed if a student requests to change from non-degree or provisional status to a degree program, or from one degree to another within the same department. Acceptance into a new degree program is contingent upon review and approval by that department. If the student is not accepted into the program requested, he/she must complete the form and present the results of each request for program change are communicated to the student by mail.

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, 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 intermediate class rolls, but will be removed from the final grade report. No record of audited coursework will appear on the permanent record.

Residence Requirement

Residence is defined as full-time registration for a given semester on the campus where the program is located. The summer semester is included in this period.

Master's degree: no general Graduate School residence requirement.

Ed.S. degree: no residence requirement if the student has a Master's degree; two consecutive semesters of residence if the student lacks a Master's degree.

Doctoral degree: minimum of two consecutive semesters of residence. Individual doctoral programs may have additional residence requirements.

A statement from doctoral students as to how and during what period of time the residence requirement will be fulfilled must 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 in The Graduate School.

Theses and Dissertations

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

The student and major professor together 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 UT Knoxville Guide to the Preparation of Theses and Dissertations provides the correct format for theses or dissertations. Workshops are held.
periodically throughout the academic year. The date for each workshop is announced in the Graduate School News. The thesis normally should be written in English. Under exceptional circumstances, another language may be used if prior approval is obtained from The Graduate School. A request to write in a language other than English should be submitted to The Graduate School by the student’s thesis committee, with the endorsement of the Department Head and the 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 abstract must be written in English.

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 Vice Provost and 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 the rejection of a thesis or dissertation manuscript.

Academic Standards

Graduate education requires continuous evaluation of the student. This evaluation 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 3.0 on all graduate courses taken for a letter grade of A-F. Grades of S/NC, P/NP, and I, which have no numerical equivalent, are excluded from this computation.

These policies do not apply to provisional students (see section on provisional admission). Departments and programs may have requirements for continuation or graduation in addition to the minimum requirements set forth in this Catalog by The Graduate School. It is the student’s responsibility to be familiar with the special requirements of the department or program.

ACADEMIC PROBATION

Upon completion of nine hours of graduate coursework, a graduate student will be placed on academic probation when his/her cumulative GPA falls below 3.0. A student will be allowed to continue graduate study in subsequent semesters if each semester’s grade-point average is 3.0 or greater. Upon achieving a cumulative GPA of 3.0, 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 Graduate School if the student’s semester GPA falls below a 3.0 (required for graduation) in a subsequent semester. When the particular circumstances may be deemed to justify continuation, and upon recommendation of the appropriate academic unit and approval of The Graduate School, a student on probation whose semester GPA is below a 3.0 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 Graduate School requirements, 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 the department.

Appeals Procedure

The student handbook, Hilltopics, published and distributed annually, contains statements of UT Knoxville standards of conduct and of all disciplinary regulations and procedures. Normally, grievances should be handled at the departmental level through the student’s advisor or the department or program head. Further appeal may be made to the Dean of the respective college, the Dean of The Graduate School, the Graduate Council, and the Chancellor. The By-Laws of the University (Article V, section 7) provide that any individual may ultimately appeal to the Board of Trustees, through the President. A copy of the Appeals Procedure is available in the Office of Graduate Admissions and Records.

Requirements for Advanced Degrees

Master’s Degrees

Master’s degree programs are available with thesis and non-thesis options. These programs require 30 or more graduate hours of course work. In addition to the M.A. and M.S. degrees, a number of other degrees are offered, including the MBA, and the M.S.S.W. A complete list is found under “Majors and Degree Programs,” on pages 8-9. For specific degree requirements, consult individual program descriptions listed by college and field of instruction in this Catalog. See also the chart, page 23, for a summary of procedures for the degrees.

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 (and 9-12 in some approved programs) must be earned in course 500 while the student is preparing the thesis. In non-thesis programs, 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 minimally required hours in a Master’s degree program must be taken in courses numbered at or above the 500 level. Only 6 thesis hours can be counted toward this requirement.

MASTER’S COMMITTEE

A committee composed of the major professor and at least two faculty members at the rank of assistant professor or above should be formed as early as possible in a student’s program, and must be approved by a student applies for admission to candidacy (refer to Advisor/Major Professor, page 18). The responsibility of this committee is to assist the student in planning a course 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 reflects agreement among the student, graduate committee, and The Graduate School. A student has demonstrated ability to do acceptable graduate work and that normal 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 required prerequisite courses and nine hours of graduate coursework with a 3.0 average or higher in all graduate work. The student must submit the Admission to Candidacy form, signed by the student’s committee and listing all courses to be used for the degree, to the Office of Graduate Admissions and Records no later than commencement day of the semester preceding the semester in which he/she plans to graduate.

THESS 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 UT Knoxville Guide to the Preparation of Theses and Dissertations. Two copies of the thesis must be approved and accepted by The Graduate School on or before the deadline specified each semester in the Graduate School News.
CERTIFYING THAT THEY HAVE EXAMINED THE FINAL COPY

The members of the Master's committee, certifying that they have examined the final copy of the thesis and judged it to be satisfactory.

FINAL EXAMINATION FOR THESIS AND PROBLEMS IN LIEU OF THESIS STUDENTS

A candidate presenting a thesis or problems must pass a final 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 degree or student's abilities to integrate material in the major and related fields, including the work presented in the thesis or problems. This examination, scheduled through the Office of Graduate Admissions and Records, must be held at least three weeks prior to the final date for approval and acceptance of thesis by The Graduate School. Final examinations not properly scheduled must be repeated. 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. In case of failure, the candidate may not apply for reexamination until the following semester. The result of the second examination is final.

REGISTRATION FOR USE OF FACILITIES

Students using University facilities or faculty time must be registered for course 502 if not registered for other courses.

FINAL EXAMINATION FOR NON-THESIS STUDENTS

With the exception of students pursuing the MBA, each non-thesis student must pass a final written examination. A department may require an additional oral examination. The examination is not merely a test over coursework, but a measure of the student's ability to integrate material in the major and related fields. It must be scheduled through the Office of Graduate Admissions and Records in accordance with the deadlines specified in the Graduate School News and will be conducted by the Master's committee. Final examinations not properly scheduled must be repeated. Students taking the final examination but not otherwise using University facilities may pay a fee of $124 instead of registering. In case of failure, the candidate may not apply for reexamination until the following semester. The result of the second examination is final.

TIME LIMIT

Candidates have six calendar years from the time of enrollment in The Graduate School to complete the degree requirements. Students who change degree programs during this six-year period may be granted an extension after review and approval by 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 (Ed.S.) degree is offered with majors in Curriculum and Instruction, Educational Administration and Supervision, Educational Psychology and Guidance, Safety Education and Service, and Vocational-Technical Education.

Admission to the Ed.S. program requires acceptance by The Graduate School, and review and acceptance by the department or area in which the student is majoring. It is recommended that students who apply for the Ed.S. have at least one year of related work experience. Additional information on admission requirements can be obtained from the departments offering the degree. Also see the chart, page 501, for a summary of procedures for this degree. All deadlines are published each semester in the Graduate School News.

COURSE REQUIREMENTS

The student's program involves a minimum of four semesters of study totaling not fewer than 45 semester hours of graduate credit beyond the baccalaureate degree. A minimum of 6 hours is required outside the major department or area.

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, nor in the minimum 6 graduate hours required outside the major. 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 an Ed.S. program. See Transfer Credits.

Courses numbered at the 500 level required for certification through UT Knoxville may not be taken for graduate credit and used as part of the 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.

ED.S 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 department 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 reflects agreement among the student, graduate committee, and The Graduate School that the student has demonstrated the ability to do acceptable graduate work and that normal 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, signed by the student's committee and listing all courses to be used for the degree, is submitted to the Office of Graduate Admissions and Records before the student has completed 15 hours of coursework in the Ed.S. 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 listings of thesis, problems in lieu of thesis, and non-thesis options. Some departments offer only a thesis program.

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

2. In the thesis program, or problems in lieu of thesis, 6 hours of research credit (518 and 519) must be earned in the 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. The thesis must be prepared according to instructions in the UT Knoxville Guide to the Preparation of Theses and Dissertations, 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 final 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 must be scheduled through the Office of Graduate Admissions and Records, before the deadline, and will be conducted by the student's committee. Final examinations not properly scheduled must be repeated. In case of 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 Ed.S. degree.

Doctoral Degrees

Two doctoral degree programs are available: Doctor of Philosophy (Ph.D.) and Doctor of Education (Ed.D.). Programs are listed under "Majors and Degree Programs," pages 8-9. For specific degree requirements, consult individual program descriptions listed by college and field of instruction in this Catalog. See also the chart, page 24, for a summary of procedures for doctoral degrees.

Doctoral programs include a major field or area of concentration and, frequently, one or more cognate fields. The latter are defined as a minimum of 6 semester hours of graduate coursework in a given area outside the student's major field.

Requirements for Advanced Degrees

23
COURSE REQUIREMENTS

Each doctoral student must take an appropriate number of 500-level courses, usually a minimum of 6 semester hours, at UT Knoxville. Normally a doctoral program includes a minimum of 24 hours of graduate coursework beyond the Master's degree, graded A-F. In addition, a minimum of 24 hours of dissertation work in course 600 is required. Additional work taken for S/N grading may comprise up to one-fourth of the student's total graduate hours.

DOCTORAL 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 a department other than that of the student's major field. This committee is nominated by the department head or college dean and approved by The Graduate School.

The committee should be formed during the student's first year of doctoral 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, direct the research, and recommend the dissertation for approval and acceptance by The Graduate School.

CONTINUOUS REGISTRATION

The student must register continuously for course 600 (minimum of 3 hours) from the time the doctoral research proposal is approved, admission to candidacy is accepted, or registration for course 600 is begun, whichever comes first, including summer semester and the semester in which the dissertation is approved and accepted by The Graduate School. A minimum total of 24 hours of course 600 is required before the dissertation will be accepted. 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, which is to be made in advance, will be considered by The Graduate School upon written recommendation of the department head.

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 in the term in which examinations are taken.

Diagnostic Examination

A student on admission to the 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 UT 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 judgement 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 of 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 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 three weeks before the date of acceptance and approval of the dissertation by The Graduate School. The examination must be scheduled through the Graduate Admissions and Records Office. Final examinations not properly scheduled must be rescheduled. 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 is announced publicly and is open to all faculty members.

LANGUAGE REQUIREMENTS

Candidates for the Ph.D. degree 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 Graduate Admissions and Records in accordance with the dates and times for the examinations printed in the Graduate School News.

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

ADMISSION TO CANDIDACY

Admission to candidacy reflects agreement among the student, graduate committee, and The Graduate School that the student has demonstrated the ability to do acceptable graduate work and that normal 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 Ph.D.), and maintaining at least a B average in all graduate coursework. Admission to candidacy must be applied for and approved at least one full semester prior to the degree the date is to be conferred. Each student is responsible for filing the admission to candidacy form, listing all courses to be used for the degree, signed by the doctoral committee and approved by The Graduate School.

DISSERTATION

The dissertation represents the culmination of an original major research project completed by the student. The dissertation is a written statement of the research, 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. Thus, a student working full time on the dissertation should register for 12 hours of 600 per semester.

Two copies of the dissertation (prepared according to the regulations in the UT Knoxville Guide to the Preparation of Theses and Dissertations) must be submitted to and accepted by The Graduate School. Each copy must include an approval sheet, signed by all members of the doctoral committee, which certifies to The Graduate School that they have examined the final copy and found that its form and content demonstrate scholarly excellence. Doctoral forms and a thesis card 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.
## Summary of Procedures for Master's and Specialist in Education Degrees

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<th>PROCEDURES</th>
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<td>Office of Graduate Admissions and Records and Major Department</td>
<td>Prior to completing 15 hours of graduate courses</td>
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<tr>
<td>Formation of Master's/Ed. S. committee</td>
<td>Advisor/Major professor</td>
<td>Prior to application for admission to candidacy</td>
</tr>
<tr>
<td>Submission of application for admission to candidacy</td>
<td>Master's/Ed. S. committee</td>
<td>At least one semester prior to graduation*</td>
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<tr>
<td>Approval of admission to candidacy</td>
<td>The Graduate School</td>
<td>Prior to graduation</td>
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### GRADUATION REQUIREMENTS FOR NON-THESIS OPTION

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<th>PROCEDURES</th>
<th>UNDER DIRECTION OF</th>
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<td>Payment of graduation fee</td>
<td>Bursar's Office</td>
<td>Deadline available at registration*</td>
</tr>
<tr>
<td>Scheduling of Final Examination</td>
<td>Student and Office of Graduate Admissions and Records</td>
<td>Not later than one week prior to Final Examination*</td>
</tr>
<tr>
<td>Final Examination</td>
<td>Master's/Ed S. committee</td>
<td>Not later than three weeks prior to Commencement*</td>
</tr>
<tr>
<td>Removal of Incomplete(s)</td>
<td>Instructor of course</td>
<td>Not later than one week prior to Commencement*</td>
</tr>
</tbody>
</table>

### GRADUATION REQUIREMENTS FOR THESIS/PROBLEMS OPTIONS

<table>
<thead>
<tr>
<th>PROCEDURES</th>
<th>UNDER DIRECTION OF</th>
<th>DATE</th>
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</thead>
<tbody>
<tr>
<td>Placement of name on graduation list</td>
<td>Student</td>
<td>Indicate on registration materials</td>
</tr>
<tr>
<td>Application for diploma</td>
<td>Office of Graduate Admissions and Records</td>
<td>Deadline available at registration*</td>
</tr>
<tr>
<td>Payment of graduation fee</td>
<td>Bursar's Office</td>
<td>Deadline available at registration*</td>
</tr>
<tr>
<td>Submission of thesis/problems to Master's/Ed. S. committee</td>
<td>Student</td>
<td>At least two weeks prior to Final Examination</td>
</tr>
<tr>
<td>Scheduling of Final Examination</td>
<td>Student and Office of Graduate Admissions and Records</td>
<td>Not later than one week prior to Final Examination*</td>
</tr>
<tr>
<td>Final Examination</td>
<td>Master's/Ed. S. committee</td>
<td>Not later than three weeks prior to thesis deadline*</td>
</tr>
<tr>
<td>Approval and acceptance of final copy of thesis and thesis card</td>
<td>Master's/Ed. S. committee and The Graduate School</td>
<td>After Final Examination and not later than two weeks prior to Commencement*</td>
</tr>
<tr>
<td>Removal of incomplete(s)</td>
<td>Instructor of course</td>
<td>Not later than one week prior to Commencement*</td>
</tr>
</tbody>
</table>

*Deadlines are printed in the Graduate School News each semester.
## Summary of Procedures for Doctoral Degrees

<table>
<thead>
<tr>
<th>PROCEDURES</th>
<th>UNDER DIRECTION OF</th>
<th>DATE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Admission as a potential degree candidate</td>
<td>Office of Graduate Admissions and Records and Major Department</td>
<td>Prior to completing 15 hours of graduate courses</td>
</tr>
<tr>
<td>*Appointment of doctoral committee</td>
<td>The Graduate School on recommendation of department head</td>
<td>Preferably during the first year of graduate study, but at the latest, prior to admission to candidacy</td>
</tr>
<tr>
<td>*Comprehensive Examination</td>
<td>Major department</td>
<td>Prior to admission to candidacy</td>
</tr>
<tr>
<td><em>Foreign language examination(s)</em>*</td>
<td>Office of Graduate Admissions and Records</td>
<td>Prior to admission to candidacy</td>
</tr>
<tr>
<td>Submission and approval of application for admission to candidacy</td>
<td>Doctoral committee and The Graduate School</td>
<td>At least one semester prior to graduation***</td>
</tr>
</tbody>
</table>

### GRADUATION REQUIREMENTS

<table>
<thead>
<tr>
<th>PROCEDURES</th>
<th>UNDER DIRECTION OF</th>
<th>DATE</th>
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</thead>
<tbody>
<tr>
<td>Placement of name on graduation list</td>
<td>Student</td>
<td>Indicate on registration materials</td>
</tr>
<tr>
<td>Application for diploma</td>
<td>Office of Graduate Admissions and Records</td>
<td>Deadline available at registration***</td>
</tr>
<tr>
<td>Payment of graduation fee</td>
<td>Bursar's Office</td>
<td>Deadline available at registration***</td>
</tr>
<tr>
<td>Submission of dissertation to doctoral committee</td>
<td>Student</td>
<td>At least two weeks prior to Defense of Dissertation Examination***</td>
</tr>
<tr>
<td>Scheduling of Defense of Dissertation Examination</td>
<td>Student and Office of Graduate Admissions and Records</td>
<td>Not later than one week prior to Defense of Dissertation Examination***</td>
</tr>
<tr>
<td>Defense of Dissertation Examination</td>
<td>Doctoral committee</td>
<td>Not later than three weeks prior to dissertation deadline***</td>
</tr>
<tr>
<td>Approval and acceptance of final copy of dissertation, doctoral forms, and dissertation card</td>
<td>Doctoral committee and The Graduate School</td>
<td>After Defense of Dissertation Examination and not later than two weeks prior to commencement***</td>
</tr>
<tr>
<td>Removal of incomplete(s)</td>
<td>Instructor of course</td>
<td>Not later than one week prior to commencement***</td>
</tr>
</tbody>
</table>

* The order of these items varies with individual programs.
** Not required in some programs.
*** Deadlines are printed in the Graduate School News each semester.
COLLEGES
Colleges

College of Agriculture
O. Glen Hall, Dean
Gary Schneider, Associate Dean

Departments
- Agricultural and Extension Education
- Agricultural Economics and Rural Sociology
- Agricultural Engineering
- Animal Science
- Entomology and Plant Pathology
- Food Technology and Science
- Forestry, Wildlife and Fisheries
- Ornamental Horticulture and Landscape Design
- Plant and Soil Science

The College of Agriculture 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 campus, but is also (with the Agricultural Experiment Station, the Agricultural Extension Service and the College of Veterinary Medicine) one of the four administrative units of The University of Tennessee's Institute of Agriculture.

There are many shared resources and positive interactions between various units of the Institute. For example, most of the faculty in the College of Agriculture hold joint appointments in the Agricultural Experiment Station, the Agricultural Extension Service and the College of Veterinary Medicine) one of the four administrative units of The University of Tennessee's Institute of Agriculture.

The unique association the College has with the UT Knoxville campus and the other units of the Institute of Agriculture makes it possible for the College to offer comprehensive high quality graduate programs.

Graduate programs of the College of Agriculture are designed to prepare men and women for positions of leadership in industry, state and federal government, teaching, research, and extension.

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 Agriculture. 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 Engineering, Agricultural and Extension Education, Agricultural Engineering Technology, Animal Science, Entomology and Plant Pathology, Food Technology and Science, Ornamental Horticulture and Landscape Design, and Plant and Soil Science. Majors only are available in Forestry and Wildlife and Fisheries Science, and minors are available in General Agriculture and Rural Sociology. The minor in General Agriculture requires 12 hours of coursework. A complete listing of majors is shown on pages 8-9.

DOCTORAL PROGRAMS

Graduate study leading to the Doctor of Philosophy degree in Animal Science, Agricultural Economics, Agricultural Engineering, Food Technology and Science, and Plant and Soil Science is offered in the college.

College of Business Administration
C. Warren Neel, Dean
Michael J. Stahl, Associate Dean
Roger L. Jenkins, Associate Dean for Graduate Programs
Richard C. Reizenstein, Associate Dean for Undergraduate Programs
David A. Hake, Director, Center for Business and Economic Research
John E. Riblett, Director, Management Development Programs

Departments
- Accounting and Business Law
- Economics
- Finance
- Management
- Management Science
- Marketing, Logistics and Transportation
- Statistics

Facilities for Research and Service
Center for Business and Economic Research
Management Development Center

The College of Business Administration was originally the School of Commerce, dating back to 1919. Commerce was changed to Business in 1937 and gained college status in 1947. The college-wide MBA program was approved in 1966 and the doctoral program in 1971.

Graduate programs of the College of Business Administration are designed to prepare men and women to assume positions in the increasingly complex world of business and industry, teaching and research, and government.
Viewing the business firm as operating in dynamic social, political, and economic environments that demand leaders capable of dealing with innovation and rapid change, the College places central importance on development of students' thought processes. Emphasis is focused on flexibility of mind, receptivity to new ideas, and capacity to adapt one's reasoning powers. Our objective is to encourage the student to develop the ability to reason analytically and logically. Above all else, we strive to instill the irresistible desire to continue to learn and grow in knowledge throughout the student's life.

The College of Business Administration has made a commitment to total quality management by integrating the principles of productivity through quality and statistical process control throughout the graduate curriculum. Interdisciplinary partnerships are encouraged among academic units in the College, with other University academic units and with the private sector, enhancing the process of inquiry and critical thinking which is crucial to total quality management.

The College of Business Administration is fully accredited by the American Assembly of Collegiate Schools of Business and is associated with other leading graduate schools of business as a member of the Graduate Management Admission Council.

GRADUATE PROGRAMS

The College of Business Administration offers programs leading to five advanced degrees: the Doctor of Philosophy with majors in Business Administration, Economics, and Management; the Master of Science with a major in Economics; the Master of Science with a major in Statistics; the Master of Accountancy; and the Master of Business Administration. The Department of Management and the Department of Psychology in the College of Liberal Arts jointly offer an intercollegiate program in Industrial and Organizational Psychology leading to the Master of Science and Doctor of Philosophy degrees (see Industrial and Organizational Psychology). Also, the Department of Management Science coordinates an intercollegiate program leading to the Master of Science (see Management Science).

The two College-wide programs, the MBA and the Ph.D. in Business Administration, are described in Business Administration, Fields of Instruction. Descriptions of other degree programs are under the appropriate departmental or program headings.

FINANCIAL ASSISTANCE

A limited number of teaching and other assistantships that require from 10 to 20 hours of service per week are available through the departments of the College. Remuneration includes remission of fees and tuition as well as a monthly stipend. Awards are generally made on the basis of scholarship and performance on the appropriate (GMAT or GRE) admission test. Application forms may be obtained in any of the departments. Information on College-administered fellowships is available from the Office of Graduate Business Programs in the College of Business Administration. Applications must be received by March 1 for consideration of assistantships and fellowships to be awarded for the following fall term.

College of Communications

B. Kelly Leiter, Dean
Herbert H. Howard, Assistant Dean for Graduate Studies and Research

Departments and Schools
Advertising
Broadcasting
Journalism

Facility for Research and Service
Communications Research Center (CRC)

The College of Communications grew out of the Journalism and Mass Communication Program. The Master's program began in 1968 under Journalism and was changed to Communications after the School gained College status in 1970. The doctoral program was initiated in 1973.

A chair of excellence was established in 1987 to support a distinguished professorship in science, technology, and medical writing. Communications media are a vital force in today's complex society. Specialization, gaps among segments of society, and the nature of world conflict point to the need for more understanding of how people communicate. Educating men and women in the perceptive understanding of the communications media is a necessity. The graduate programs in the College acquaint students with the nature of communications and prepare them for professional work in many fields.

The College of Communications offers the Master of Science and the Doctor of Philosophy degrees with a major in Communications. In addition, Communication, which is available as a minor for students majoring in other departments, is a necessary component of professional education.

The College of Communications is fully accredited by the Accrediting Council on Education in Journalism and Mass Communication. The College is a member of the Association of Schools of Journalism and Mass Communication and the Broadcast Education Association.

For application forms and other information about the M.S. and Ph.D. programs in Communications, write to Assistant Dean for Graduate Studies, College of Communications, 98 Communications Building, The University of Tennessee, Knoxville, Tennessee, 37996-0313.

College of Education

Richard Wisniewski, Dean
C. Glennon Rowell, Associate Dean for Graduate Studies
Thomas W. George, Associate Dean for Undergraduate Studies
Timothy J. Pettibone, Associate Dean for Research

Departments
Art and Music Education
Curriculum and Instruction
Educational and Counseling Psychology
Educational Leadership
Health, Leisure, and Safety
Human Performance and Sport Studies
Special Services Education
Technological and Adult Education

Facilities for Research and Service
Bureau of Educational Research and Service
Center for Environmental/Energy/Science Education
Center for Physical Activity and Health Institute for Teacher Education
Instructional Services Center
Public Schools for Cooperative Research
Reading Center
Safety Center
State Testing and Evaluation Center

FINANCIAL ASSISTANCE

A limited number of teaching and other assistantships that require from 10 to 20 hours of service per week are available through the departments of the College. Remuneration includes remission of fees and tuition as well as a monthly stipend. Awards are generally made on the basis of scholarship and performance on the appropriate (GMAT or GRE) admission test. Application forms may be obtained in any of the departments. Information on College-administered fellowships is available from the Office of Graduate Business Programs in the College of Business Administration. Applications must be received by March 1 for consideration of assistantships and fellowships to be awarded for the following fall term.

Masters of Science Programs

On the Master's level, professional study may be planned (1) in one of the areas listed on page 8-9, (2) in appropriate combinations of these areas, or (3) in combinations of one or more of these areas with appropriate subjects or areas in other colleges.

Students in the College of Education's five-year preparatory program must meet all criteria for admission to The Graduate School to earn 12 hours credit toward their Master's degrees. Admission to Graduate School must be prior to or during the semester that the first graduate credit is to be earned. Internship cannot be used for graduate credit.

SPECIALIST IN EDUCATION PROGRAMS

This degree may be earned in Educational Administration and Supervision, in Educational Psychology and Guidance, in Curriculum and
Instruction, in Safety Education and Service, or in Vocational-Technical Education.

DOCTORAL PROGRAMS

The College of Education offers programs of advanced study leading to the Doctor of Education in the major areas listed on page 8-9. Ph.D. in Education requirements are available under Education, Fields of Instruction.

TEACHER CERTIFICATION

Applicants for initial teacher certification and those applicants previously certified who are seeking initial institutional recommendation for certification must gain admission to the college's Teacher Education Program. A complete explanation of the admission process appears in the Undergraduate Catalog.

College of Engineering

William T. Snyder, Dean
William L. Grecco, Associate Dean
William A. Miller, Associate Dean

Departments
Chemical Engineering
Civil Engineering
Electrical and Computer Engineering
Engineering Science and Mechanics
Industrial Engineering
Materials Science and Engineering
Mechanical and Aerospace Engineering
Nuclear Engineering

Facilities for Research and Service
Center for Measurement and Control Engineering
Center of Excellence for Materials Processing

The College had its beginnings in the University when surveying was introduced into the curriculum in 1836. The first two professional degrees, Civil Engineer and Mining Engineer, were established in 1879 at the same time that the Board of Trustees authorized the establishment of a graduate school. Known as Mechanic Arts originally, Engineering became a college in 1904.

The purpose of the College of Engineering is to educate men and women to the high levels of research, technical competence, and social understanding that will enable them to fulfill their responsibilities as professional engineers.

Graduate programs of the College of Engineering provide opportunities for advanced study leading to the Master of Science and Doctor of Philosophy degrees. For a listing, consult majors and degrees available on page 8-9.

GRADUATE PROGRAM AT THE UT SPACE INSTITUTE

At the University of Tennessee Space Institute near Tullahoma, graduate-level courses are offered in engineering fields such as aerospace, chemical, electrical and computer, engineering science and mechanics, industrial, mechanical, engineering, engineering management, and mathematics and physics. All programs lead to the Master of Science degree. Also, Ph.D. programs are available in many of these fields. Information may be obtained from the Registrar, The University of Tennessee, Space Institute, Tullahoma, TN 37388.

YEAR-IN-JAPAN M.S. PROGRAM

This is a unique program allowing American engineering students to develop some understanding, both scientific and cultural, of Japan. It allows an M.S. candidate to obtain a degree from UT Knoxville while carrying out research at a Japanese university. The program requires approximately two years; one year is spent in Japan and the remaining period is spent at UT Knoxville to fulfill the course requirements and to write the thesis or project report, as appropriate to the particular department. The program is administered in the particular department of the regular graduate program, except that the research is done in Japan.

CENTER OF EXCELLENCE FOR MATERIALS PROCESSING

The Center for Materials Processing is one of the "Centers of Excellence" created by the State of Tennessee. It is an inter-disciplinary program designed to bring together individuals with appropriate expertise to solve important materials processing problems. It emphasizes (1) the development of desirable materials properties through the control of composition, microstructure and macrostructure, (2) measurement of process variables, and (3) control of those variables to ensure proper processing. The Center conducts basic research and teaching in materials processing and carries out research to improve existing processing technologies and transfer research results to private industry. A major aspect of the Center is student participation in industry-sponsored research programs.

College of Human Ecology

Jacquelyn O. De Jonge, Dean
James D. Moran III, Associate Dean: Graduate Studies
Frances Andrews, Associate Dean: Academic Administration

Departments
Child and Family Studies
Nutrition and Food Sciences
Textiles, Merchandising and Design

The University of Tennessee was one of the first institutions of higher education in the South to offer home economics, with the first class being offered in 1867. Initially called a School of Home Economics, it combined with Agriculture in 1947 to become the College of Agriculture and Home Economics. In 1959, the two colleges became separate units, although they continue to share resources. In 1965 the name was changed to Human Ecology, reflecting its focus on people interacting with their environments.

Graduate study in Human Ecology prepares the student for teaching, research, and public service in colleges and universities or managerial positions in government, business, and industry.

The Master of Science degree is offered with majors in Child and Family Studies, Home Economics, Interior Design, Food Science, Food Systems Administration, Nutrition (including public health nutrition), and Textiles and Apparel; the Doctor of Philosophy degree is offered with a major in Human Ecology and concentrations in child development, family studies, food science, nutrition science, and textiles and apparel. For additional information, contact the Associate Dean of Graduate Studies, College of Human Ecology, The University of Tennessee, Knoxville, TN 37996-1900, (615) 974-5224.

College of Law

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

The University of Tennessee College of Law commenced operations 1890 and has continuously sought to provide high-quality legal education in a university community. While the principal objective of the college is to prepare students for the private practice of law, its total mission is more broadly conceived. The college exposes students to the legal issues of our society enabling them to develop analytical skills with respect to decisional law and statutes, the ability to communicate effectively their knowledge of the law, an awareness of the historical growth of the law, a knowledgeable appreciation of the interrelationship of law and society, and the ability to use law as an implement of societal control and development. Students are thus equipped to serve their communities not only as advocates and counselors, but as policy makers and active, responsible citizens.

THE PROFESSIONAL PROGRAM

The program of the college has three dimensions: teaching and learning, research into and appraisal of our legal systems and institutions, and service to the community. Each plays a significant role in the college as a modern law center.

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

The college is also directly involved in providing service to the community. A major element of public service is centered in the
Legal Clinic where students, under the guidance of skilled and experienced licensed practitioners, provide legal services to clients. Additionally, through research, consultation, and other services to legal institutions and groups within the state, the college seeks to participate in the development and improvement of the society in which its students may eventually practice law. The Public Law Institute is a primary example of this function.

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

GRADUATE PROGRAM

Two dual degree programs are available in conjunction with the College of Law: the J.D.-M.B.A. program with the College of Business Administration and the J.D.-M.P.A. program with the Department of Political Science. Refer to details under the respective field of instruction. Graduate students in other disciplines may also take law courses upon approval of the College of Law and the major professor. See Law Under Fields of Instruction.

College of Liberal Arts

Lorman A. Rainer, Dean
Charles O. Jackson, Associate Dean
Harry Jacobson, Associate Dean
Lee Magid, Associate Dean
Jack Armstead, Associate Dean

Departments

Anthropology
Art
Audiology and Speech Pathology
Biochemistry
Botany
Chemistry
Classics
Computer Science
English
Geography
Geological Sciences
Germanic and Slavic Languages
History
Interdisciplinary Programs
Mathematics
Microbiology
Music
Philosophy
Physics and Astronomy
Political Science
Psychology
Religious Studies
Romance Languages
Sociology
Speech Communication
Theatre
Zoology

Facilities for Research and Service

Center for Applied and Professional Ethics
Center for Environmental Biotechnology
Center for Psychoanalysis and the Humanities
Center for Quaternary Studies of the South-eastern U.S.
Center for the Study of War and Society
Child Behavior Institute
Forensic Anthropology Center
Hearing and Speech Center
Institute for Applied Microbiology
Institute of Nuclear Physics
James R. Stokely Institute for Liberal Arts
Joint Institute for Heavy Ion Research
Latin American Studies Institute
Psychological Clinic
Science Alliance
Social Science Research Institute

The University of Tennessee began as a liberal arts institution. Shortly before the turn of the century, less emphasis was placed on the liberal education. However, the liberal arts continued to thrive, emerging as a college in 1904. Thus, the College of Liberal Arts is one of the oldest established colleges in the University.

The College of Liberal Arts consists of a wide array of academic disciplines and interdisciplinary programs. The central purposes of a liberal education include the encouragement of intellectual tolerance, a dedication to the quest for knowledge as a worthwhile goal in and of itself, and the cultivation of a responsible, creative individual mind. These qualities enable one to develop an ability to reason and to express oneself clearly, an incentive to absorb emerging knowledge, and a competence to confront the uncertainties of human experience.

Faculty research and creative activity is the foundation on which education in this College is built. As a result of that endeavor, the lives of students are enriched and the world's body of knowledge grows.


GENERAL INFORMATION

Foreign Study Courses

Foreign study courses offered in some departments of the college provide an opportunity to undertake independent study outside the United States. Prior to departure the student must have a plan of study approved by the department head and a supervising faculty member of the department concerned. Credit will be given only upon fulfilling all requirements set by the department and may vary from 1-15 hours. The maximum credit that may be applied toward a degree in the college is established in each individual case by the department in which the student is working.

Off-Campus Study

Recognizing that learning is not restricted to formal classroom situations, the college provides for students to earn credit toward graduation for approved off-campus study. Such study may be undertaken only with prior approval of the faculty member and the department concerned. It may include certain kinds of work experiences, community involvement, or political campaigns. Credit per semester will vary from 1-15 hours. The maximum credit that may be applied toward a degree in the college is established in each individual case by the department in which the student is working.

College of Medicine-Knoxville Unit

Robert L. Summit, Dean
Reid I. Collmann, Associate Dean

Department

Medical Biology

The College of Medicine traces its origin to the establishment of the Medical Department of the University of Nashville in 1851. Later, through a merger of four medical schools, it became The University of Tennessee College of Medicine and moved to Memphis in 1911.

The major campus of the College of Medicine is located in Memphis, Tennessee. The college, however, is a statewide organization with other units in Chattanooga, Jackson, and Knoxville. The major aim of the College of Medicine-Knoxville Unit is the advancement of medical research.

In addition to the Department of Medical Biology listed here, the Knoxville Unit has several clinical departments with faculty dedicated to graduate and postgraduate medical education.

GRADUATE PROGRAMS

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

College of Nursing

Sylvia E. Hart, Dean
Mildred M. Fenske, Associate Dean for Graduate Programs
Johnnie N. Mozingo, Associate Dean for Undergraduate Programs
Barbara M. Reid, Associate Dean for Student Affairs
Maureen Groer, Director of Doctoral Program
Sandra P. Thomas, Director of Center for Nursing Research

Facilities for Research and Service

Center for Nursing Practice
Center for Nursing Research
The College of Nursing was established in July 1971. The Master's program was initiated in 1976 and approval for the doctoral program was granted in 1986. More specific information about the programs may be obtained under Nursing, Fields of Instruction, or by contacting the Director of M.S.N. or Ph.D. Program, The University of Tennessee, College of Nursing, 1200 Prentiss Blvd., Knoxville, TN 37996-4110, (615) 974-4151.

MASTER OF SCIENCE IN NURSING

The general purpose of the M.S.N. program is to prepare nurses at the graduate level to function as clinical specialists, teachers, or managers in a variety of health care or educational settings. The program is accredited by the National League for Nursing and is unconditionally approved by the Tennessee Board of Nursing. Students admitted to the program select a concentration in either adult health nursing, parent-child nursing, mental health nursing, primary care nursing (family nurse practitioner), or nursing administration.

THE DOCTORAL PROGRAM

The College of Nursing offers a doctoral program leading to the Ph.D. with a major in Nursing. The doctoral program prepares nursing scholars capable of integrating research, theory, and practice into the profession, as researchers, educators, and/or administrators. This cooperative program offered jointly with The University of Tennessee, Memphis College of Nursing enables students to complete all or part of the program at either site. The dissertation must be completed in its entirety at one site.

College of Social Work

Eunice Shatz, Dean
William J. Bell, Acting Associate Dean, Nashville
James D. Orten, Acting Associate Dean, Knoxville
Nellie P. Tate, Associate Dean, Memphis
Paul M. Campbell, Director, Office of Social Work Research and Public Service

College of Veterinary Medicine

The College of Social Work began as the Nashville School of Social Work, founded in 1942 under the auspices of Vanderbilt University, Scarritt College, and George Peabody College. It joined the University of Tennessee in 1951. By 1974 the three branches, located in Nashville, Memphis and Knoxville, offered the two-year Master's program. The doctoral program was inaugurated in 1986. In 1986 the B.S.S.W. program was added, and the School achieved college status.

The University of Tennessee College of Social Work is the only graduate professional social work education program in Tennessee and offers the full continuum of social work education degrees at the Baccalaureate, Master's and doctoral levels.

Social work is a helping profession which focuses on providing skilled intervention in the prevention and amelioration of individual and societal problems. It is the purpose of the College to provide an education which fosters growth in both individual and career development.

GRADUATE PROGRAMS

The two-year program (thesis or non-thesis option) leading to the Master of Science in Social Work is fully accredited by the Council on Social Work Education and is offered on all three campuses. The foundation curriculum of the Ph.D. program is available only in Knoxville. A dual degree program in Social Work and Divinity is offered by the college's Nashville Branch and the Divinity School of Vanderbilt University. The College also offers a dual degree program with Public Administration. A special bulletin describing facilities, admission, fees, and degree requirements is available from the College of Social Work, Henson Hall, Knoxville, TN 37996-3333.

College of Veterinary Medicine

William H. Grau, Jr., Associate Dean
David F. Edwards, Interim Associate Dean

Departments

Animal Science-Veterinary Medicine
Environmental Practice
Microbiology-Veterinary Medicine
Pathobiology
Rural Practice
Urban Practice

The College of Veterinary Medicine, established in 1974, offers a professional curriculum leading to the Doctor of Veterinary Medicine (D.V.M.) degree. The college offers graduate studies leading to the Master of Science and the Doctor of Philosophy degrees. Residency training programs in the various clinical specialties are also offered.

The primary objective of the college is to educate veterinarians for private practice. However, the professional curriculum provides an excellent basic medical education, in addition to training in diagnosis, disease prevention, medical treatment, and surgery. Graduates are qualified to pursue careers in many facets of veterinary medicine and related health professions.

Most veterinarians are engaged in private practice and specifically in general practice which deals with the diseases of all kinds of animals. About one-fourth of the veterinarians in the United States are engaged exclusively in pet or companion animal practice. A growing number are concerned with the health problems of zoo animals, laboratory animals, wildlife, and aquatic species.

Veterinarians also find rewarding careers in the U.S. Public Health Service, the U.S. Army and Air Force, and in state, county, or local health agencies. A large number of veterinarians are employed by the U.S. Department of Agriculture and by state departments of agriculture for important work in livestock disease control, meat and poultry inspection, serum and vaccine production, and the protection of our country against the importation of foreign animal diseases.

Excellent opportunities exist for veterinarians interested in research, both research for the direct benefit of animals and research conducted with animals but for the benefit of humans. Such opportunities are available at colleges and universities and with governmental agencies, private research institutions, and biological and pharmaceutical companies.
FIELDS OF
INSTRUCTION
Fields of Instruction

Accounting and Business Law
(College of Business Administration)

MAJORS
Accounting
Business Administration

DEGREES
M.Acc.
MBA, Ph.D.

Jan R. Williams, Head

Accounting

Professors:
Dittrich, Norman E., CPA, Ph.D...... Ohio State
Kiger, Jack E. (Distinguished Prof.), CPA,
Ph.D. ........................................ Missouri
Read, W. H. (Emeritus), CPA,
MBA ............................................. Northwestern
Scheiner, James H., CPA, Ph.D. .... Ohio State
Stanga, Keith G. (Distinguished Prof.), CPA,
Ph.D. ........................................... Louisiana State
Williams, Jan R. (Ernst & Young Prof.), CPA,
Ph.D. ........................................... Arkansas

Associate Professors:
Anderson, Kenneth E., CPA, Ph.D. ...... Indiana
Borthick, A. Faye, CPA, DBA............ Tennessee
Herring, Hartwell C., III, CPA, Ph.D. .... Alabama
Izard, C. Douglass; CPA, Ph.D. ...... Mississippi
Posey, Imogene A., CPA, M.S. ...... Tennessee
Reeve, James M., CPA,
Ph.D. ........................................ Oklahoma State
Roth, Harold P., CPA, Ph.D............... VPI
Slagle, Warren L. (Emeritus) .............. Tennessee
Townsend, Richard L., CPA, Ph.D. ...... Texas

Assistant Professors:
Gatian, Amy W., Ph.D. ...................... VPI
Letsinger, M. Clyde, CPA, M.S. ...... Tennessee
Turpen, Richard A., CPA, Ph.D. ...... Alabama

Distinguished Lecturer:
Wolfe, Singleton B. (Emeritus), B.S. ............ VPI

Lecturers:
Anderson, Ellen B., M.Acc. ............ Tennessee
Hendrick, Lee W., J.D. ................. Houston
Hughes, Harry N., B.S. ............... Tennessee

THE MASTER OF ACCOUNTANCY PROGRAM

The objective of the Master of Accountancy (M.Acc.) program is to provide persons having an undergraduate accounting background and a high level of ability and motivation with the depth and understanding of accounting which will enhance their probability of success in a career in professional accounting. Moreover, the student’s educational experience should develop perspectives toward the discipline of accounting in a manner that will enable the student to spearhead innovation and change in response to needs in public accounting, business, industry, and government.

Admission Requirements
Application deadlines for international students are: Fall, March 1; Summer, November 15. Application deadlines for U.S. citizens and permanent residents are: Fall, June 1; Summer, February 1. Although the program is designed for students who have completed an accredited baccalaureate degree program with a major in Accounting, those with outstanding undergraduate records in any area may earn the M.Acc. degree by completing prerequisites in accounting and by including courses in other business and related disciplines to supplement the applicant’s undergraduate background. Students entering the program are expected to have completed coursework in calculus and computer science. For students with no previous exposure to calculus, Mathematics 135 is available.

In addition to the general admission requirements for The Graduate School, M.Acc. applicants are required to take the Graduate Management Admission Test (GMAT) and submit information on forms provided by the College of Business Administration. Applicants whose native language is not English must submit results of the Test of English as a Foreign Language (TOEFL).

Course Requirements for the M.Acc. Program
A student’s program encompasses a minimum of 30 semester hours of graduate coursework. Specifically, the student must complete courses in accounting and other areas as indicated below. Each course is 3 semester hours of graduate credit.

Accounting Core (9 hours): 511, 513, 521.

Accounting Concentration (12 hours):
1. Financial/Auditing: 512, 531, 519, one accounting elective.
3. Taxation: 531, 532, 533, 539.

Non-accounting Electives (9 hours):
Non-accounting courses taken in either other business or non-business areas, upon approval of M.Acc. advisor.

Transfer Credits
A maximum of six semester hours taken at other AACSB accredited institutions that otherwise conform to the transfer policy of The Graduate School may be credited toward M.Acc. degree requirements.

Other Requirements
To qualify for the degree, a student must maintain a B average (3.0) or above in the core and concentration area accounting courses and a B average or higher in the overall program. The student must satisfactorily demonstrate his/her ability to recognize, analyze, and solve accounting policy problems and integrate concepts from the various areas of accounting by passing a comprehensive written examination. This examination is included in the capstone courses in each concentration as follows: 519, Research in Financial Accounting and Auditing; 539, Tax Policy and Special Topics; and 549, Systems Policy.
BUSINESS ADMINISTRATION

CONCENTRATIONS

For complete listing of MBA and Ph.D. program requirements, see Business Administration.

MBA Concentration: Controllership

The concentration in controllership provides added accounting skills appropriate for those seeking employment in the controllership or general management functions of a variety of organizations. Although the controllership concentration provides broad preparation for the Certified Management Accountants' examination, it is not designed to meet the minimum educational requirements to take the Certified Public Accountants' examination.

Minimum course requirements are three courses from the following: 504, 505, 522, 541.

Ph.D. Concentration: Accounting

This degree provides a research-oriented terminal program for those seeking entry-level faculty positions in accounting. Students take approximately three years of coursework beyond the bachelor's degree, including a doctoral sequence designed to expose students to various areas of research. Courses in accounting and other areas are selected to supplement the student's individual background and to prepare the student in an area of accounting specialization (financial, managerial, auditing, tax or systems). The final year is normally spent completing the doctoral dissertation.

Minimum course requirements are 12 hours including 611, 612, 619, and one other accounting course to be approved by Ph.D. accounting program advisor.

ACADEMIC STANDARDS

A graduate student in the College of Business Administration whose grade-point average falls below 3.0 will be placed on probation. A student on probation will be dropped from the program unless his/her cumulative grade-point average is 3.0 or higher at the end of the probationary period. The probationary period is defined as the next semester's coursework as established by the degree program for full-time students and the next two semester's coursework as established by the degree program for part-time students.

GRADUATE COURSES


502 Registration for Use of Facilities (3-15) Required for the student not otherwise registered during any semester when student uses University facilities and/or faculty time before degree is completed. May not be used toward degree requirements. May be repeated. S/NC only. E

503 Managerial Accounting (3) Concepts and analyses relevant to internal decision-oriented users of accounting information for planning, decision making, controlling, and product costing. Prereq: 501.


505 Taxation for Business Decisions (4) Conceptual foundation and analysis of current issues in taxation; impact of use and management of financial and investment information applied to individual, corporate, partners, and fiduciary taxpayers. Prereq: 504 and Finance 501.


513 Seminar in Advanced Auditing (3) Theory and concepts underlying application of philosophy of auditing to current auditing issues. Prereq: 411.

519 Seminar in Accounting and Auditing Research (3) Problem-oriented research design in financial accounting and auditing. Research methodologies and approaches to particular research questions. Research project. Prereq or coreq: 512 and 513.

521 Seminar in Advanced Managerial Cost Accounting (3) Analysis of conceptual and current issues; impact on development and practice of managerial and cost accounting. Approaches to management accounting, decision and control models, and planning and control under conditions of uncertainty. Prereq: 321.

522 Budgetary Planning and Control Systems (3) Alternative approaches to formulation and use of planning and control systems to meet organizational objectives. Control systems and corporate structure, discretionary expenses centers, profit centers, transfer pricing, and control in manufacturing, service, and not-for-profit organizations. Prereq: 321 or 503.

531 Tax Research and Planning (3) Development of expertise in tax research utilizing authoritative sources of tax law and advanced study of tax alternatives available to minimize tax liability compatible with achieving tax-payer objectives. Prereq: 431.

532 Corporate Taxation and Reorganizations (3) Organization and structure, distributions, liquidations, reorganizations, and special problems in taxation of corporations and shareholders. Prereq or coreq: 531.

533 Taxation of Partnerships and S Corporations (3) Formation, operation, termination, and other special problems of partnerships. Election for S Corporations, and comparison of partnerships and S Corporations. Prereq or coreq: 531.

534 Unified Estate and Gift Transfer Taxation (3) Taxation of wealth transfers; transfers at death, inter vivos transfers, and generation skipping transfers. Income taxation of estates and trusts. Determination and payment of state and federal wealth transfer and income taxes. Prereq: 431.

539 Tax Policy and Special Topics (3) Basic concepts of tax policy, current issues in tax policy, and selected topics in taxation. Topics vary. Prereq: 531. Prereq or coreq: 532, 533.

541 Database Systems (3) Design, implementation, and use of database systems for collection, organization, and dissemination of economic information and economic organization. Prereq: 312 or 501; 521 or 503; 341 or Business Administration 506.

542 Systems Analysis and Design (3) Analysis and design of information systems for management and distribution of economic information about organizations. Prereq: 541.

549 Systems Policy (3) Seminar in emerging topics in management systems and knowledge-based systems. Prereq: 541. Prereq or coreq: 542.

592 Graduate Internship in Accounting (3) Full-time resident professional employment for one academic semester involving qualified job experience, written report of responsibilities, and evaluation of student performance. Prereq: Consent of instructor.


594 Graduate Seminar in Accounting (3) Topics vary. Prereq: Consent of instructor.

600 Doctoral Research and Dissertation (3-15) P/NP only. E

611-12 Doctoral Seminar in Accounting (3,3) Analysis of issues reflected in accounting literature. Prereq: Consent of Ph.D. program advisor.

619 Doctoral Research in Accounting (3) Study of research methodology and application of various research methods in accounting literature. Prereq: Consent of Ph.D. program advisor.

621-22 Accounting Colloquium (1,1) Research and discussion of contemporary issues in practice of accounting. Prereq: Consent of Ph.D. program advisor. May be repeated. S/NC only.

Business Law

Professors:

Fisher, Bruce D., LL.M. George Washington Townsend, Mahlon L. (Emeritus), J.D. Tennessee

Assistant Professors:

Bentley, Denise D., J.D. Vanderbilt Massingale, Cheryl S., MBA, J.D. Tennessee

GRADUATE COURSES

501 Legal, Ethical, and Societal Environment (3) Legal/ethical environment: recognized schools of jurisprudence (legal ethics), sources of law, anatomy of civil and criminal lawsuits; how regulations are made and enforced; constitutional rights and duties of business; antitrust law; Federal Trade Commission; product liability; consumer protection; employer-employee relations; securities regulation; environmental law; and international business law.

Advertising

(Majors in Communications)

MAJOR DEGREES

Communications M.S., Ph.D. Ronald E. Taylor, Head

Associate Professors:

Hovland, Roxanne, Ph.D. Illinois Jackson, DeForrest, M.S. Tennessee

Stankey, Michael J., Ph.D. Illinois Taylor, Ronald E., Ph.D. Illinois

Assistant Professor:

Hoy, Mariea, Ph.D. Oklahoma State

The Department of Advertising offers a concentration area for the Master's degree with a major in Communications and participates in the interdisciplinary doctoral program. See Communications for additional information.

GRADUATE COURSES

490 Special Topics (3) Topics vary: advanced media strategy, advanced creative strategy, direct marketing, and advertising and social issues. E

510 Advertising and Society (3) Analysis of advertising as an institution in a free-enterprise democratic society and its relation to social, legal, cultural, and economic institutions. F
Aerospace Engineering

See Mechanical and Aerospace Engineering

Agricultural and Extension Education

(College of Agriculture)

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**DEGREE**

M.S.

Roy R. Lessly, Head

Professors:


Associate Professor:

Lessly, Roy R., Ed.D. ................. Oklahoma State

Assistant Professor:

Waters, Randol G., Ph.D. ............... Penn State

The Department of Agricultural and Extension Education offers a program leading to the Master of Science degree with a major in Agricultural and Extension Education. The program is designed primarily for teachers of Vocational Agriculture and staff employed by the Agricultural Extension Service. However, due to the flexibility of the program, it would be of value to anyone involved in agricultural adult and continuing education. The program may be completed under a thesis or non-thesis option with a concentration in either agricultural education or agricultural extension education. Candidates for the Master's degree must meet the general requirements of The Graduate School and those stipulated by the department.

**THE MASTER'S PROGRAM**

**Thesis Option**

A candidate for the Master's degree who elects this thesis option must successfully complete:

1. 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.
2. A minimum of 20 hours of graduate credit in courses numbered at or above the 500 level.
3. 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.
4. A minimum of 3 hours of graduate credit in coursework in either research methodology or statistics.
5. A final oral examination.

**Non-Thesis Option**

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

1. A minimum of 36 hours of graduate credit in courses approved by the student's advisory committee.
2. A minimum of 24 hours of graduate credit in courses numbered at or above the 500 level.
3. 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.
4. A minimum of 3 hours of graduate credit in coursework in either research methodology or statistics.
5. A creative component designed by the student and approved by the student's advisory committee for 3 hours of graduate credit.
6. A written and oral comprehensive examination.

**GRADUATE COURSES**

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<td>500</td>
<td>Thesis (1-15) P/NP only, E</td>
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<td>502</td>
<td>Registration for Use of Facilities (3-15)</td>
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<td>521</td>
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Agricultural Economics and Rural Sociology

(College of Agriculture)

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**DEGREES**

M.S., Ph.D.

Handy Williamson, Head

Professors:

Agricultural Economics

GRADUATE COURSES

412 Agricultural Finance (3) Macro-finance, financial objectives, acquisition of debt and equity funds, capital investments, capital allocation, credit analysis, borrower and lender loan application analysis, insurance strategies, computer applications, kinds and courses of agricultural credit, and financial intermediation. Prereq: Economics 201. Sp

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

440 Agricultural Production Economics (3) Application of microeconomic theory to problems of resource allocation, enterprise selection, scale of operation of whole farm business; systems analysis and management control; risk analysis and management; income tax management; farm growth and intergeneration transfer. Prereq: 342. Sp

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

450 Agricultural Price Analysis (3) Analysis of demand and supply mechanisms in agriculture; price determination; spatial equilibrium; temporal price patterns; pricing institutions. Prereq: Economics 311. F

452 Agribusiness Firm Management (3) Operations of firms selling farm supplies and merchandising agricultural products. Analytical tools and economic theories for decision making. Prereq: Economics 201. Sp

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

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

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

500 Thesis (1-15) P/NP only. E

502 Registration for Use of Facilities (3-15) Required for the student not otherwise registered during any semester a full student uses University facilities and/or faculty time before degree is completed. May not be used toward degree requirements. May be repeated. S/NCo only. E

520 Research Methodology (1) Nature of scientific method and research processes, role of assumptions, hypotheses, theory and models; methodological problem of social sciences; establishing research priorities. Prereq: Consent of instructor. F

522 Mathematical Programming Methods in Agricultural Economics (3) Linear, integer and quadratic programming techniques with empirical applications to problems of firm and region maximization, cost minimization, transportation, risk, allocation over space and time. Prereq: Consent of instructor. Sp

524 Econometric Methods in Agricultural Economics (3) Application of econometric tools to agricultural economic models; estimation of supply, demand and production functions; microeconomic forecasting models; interpretation of results. Prereq: Statistics 461 or consent of instructor. F

540 Advanced Agricultural Production Economics (3) Theoretical and empirical concepts in agricultural resource allocation; analysis of both static and dynamic issues; decision theory with application to agricultural firms; aggregate impact of firm decisions on industry. Prereq: 440 or consent of instructor. F

550 Advanced Agricultural Marketing (3) Analysis of structure, conduct and performance of agricultural marketing system; application of price theory concepts to existing circumstances in agricultural industries; examination of methods used to evaluate conduct and performance; analysis of transportation issues and location theory. Prereq: Economics 311 or consent of instructor. Sp

556 Advanced Economic Development (3) Theoretical and historical perspectives on process of economic development; analyze role of agriculture, sectoral interdependence and trade in development; application of theory to specific development issues. Prereq: 460 or consent of instructor. Sp

570 Advanced Natural Resource Economics (3) Analysis of natural resource economic problems; valuation of both static and dynamic issues; public policy. Prereq: Economics 511 or consent of instructor. F

593 Special Topics in Agricultural Economics (1-3) Topics to be assigned. Prereq: Consent of instructor. May be repeated. Maximum 9 hrs. S/NCo only. E

600 Doctoral Research and Dissertation (3-15) P/NP only. E

630 Agricultural Policy Analysis (3) Evaluation of public policy as related to agricultural industry and rural areas. Prereq: Economics 510 and 513 or consent of instructor. F

640 Agricultural Supply Analysis (3) Critical evaluation of both theoretical basis and empirical procedures used for estimating agricultural supply relationships using regression techniques, production functions, mathematical programming, farm growth models and simulation in supply analysis. Prereq: 540 or consent of instructor. F

650 Operations Analysis in Marketing (2) Components and functions of marketing system; levels of analysis and tools, operational efficiency, interregional competition. Prereq: 450 and 550 or consent of instructor. Sp
652 Consumer Demand and Food Consumption (2)  
Simultaneity of consumer decision making; food demand. Prereq: Economics 511 and 512 or consent of instructor. Sp/A

660 Seminar in Rural Economic Development (2)  
Current topics in economic development of rural areas. Current literature: evaluation of issues in both international and domestic development. Prereq: 560 or consent of instructor. Sp/A

670 Seminar in Natural Resource Economics (2)  
Issues in natural resource economics. Current literature: evaluation of theory, methodology and public policy as related to allocation of natural resources. Prereq: 570 or consent of instructor. F/A

Rural Sociology

GRADUATE COURSES

480 Diffusion of Agricultural Technology (3)  
Analysis of diffusion and communication processes whereby new technology spreads from scientists to change agents and then to farmers. Innovation-decision process; communication behavior, mass media, role of professional change agents, opinion leadership and consequences of technological change. Prereq: 380 or consent of instructor. (Same as Sociology 480.) Sp

580 Advanced Rural Sociology (3)  
Application of sociological concepts and theory to analyze changing structure and function of rural life in U.S. and developing countries. Demographic changes, rural social and community indicators, and rural development processes. Prereq: 380 or equivalent. (Same as Sociology 580.) Sp

593 Special Topics in Rural Sociology (1-3)  
Current sociological issues involving application of sociological theory. Prereq: 380 or consent of instructor. May be repeated. Maximum 6 hrs. (Same as Sociology 595.) E

Agricultural Engineering

(College of Agriculture)

MAJORS

Agricultural Engineering M.S., Ph.D.
Agricultural Engineering Technology M.S.

D. Houston Luttrell, Head
Bobby L. Bledsoe, Associate Head

Professors:
Bledsoe, B. L., Ph.D. .......... Oklahoma State University
Henry, Z. A., Ph.D. .......... NC State University
Luttrell, D. Houston, Ph.D. .......... Iowa State University
McDow, John J., Ph.D. .......... Michigan State University
Mote, C. R., Ph.D. .......... Ohio State University
Sawell, J. I., Ph.D. .......... NC State University
Shelton, C. H., M.S. .......... VPI
Tompkins, F. D., Ph.D. .......... Tennessee State University
Wilhelm, Luther R., Ph.D. .......... Tennessee State University
vonBrentnau, R. D., Ph.D. .......... Nebraska State University

Assistant Professors:
Baxter, D. O., M.S. .......... Missouri State University
Freeland, Robert S., Ph.D. .......... Tennessee Technological University
Hart, W. E., Ph.D. .......... Purdue University
Wilkinson, J. B., Ph.D. .......... Purdue University

Graduate programs leading to the Master of Science and Doctor of Philosophy with a major in Agricultural Engineering are available to graduates of a recognized curriculum in engineering or related fields, or one of the physical or biological sciences. A graduate program leading to the Master of Science in Agricultural Engineering Technology is available to graduates in a recognized curriculum in agriculture or other related fields. Each applicant will be advised by the graduate advisor on all prerequisite courses before entering a program. The student's program of study must be approved by the graduate advisor and must comply with the requirements of the Graduate School. A completed departmental data sheet and three completed Graduate School Rating Forms are required in addition to The Graduate School application.

THE MASTER'S PROGRAMS

Agricultural Engineering Requirements

1. A total of at least 24 hours credit in graduate coursework in Agricultural Engineering Technology and related areas. The minimum requirements are 12 hours in agricultural engineering; 9 hours in other engineering, mathematics, physical and biological sciences, agricultural, or business areas (as approved by the advisory committee); and 3 optional hours from either one of these categories.

2. Active participation in graduate seminars conducted by the department. Resident students must register for a minimum of 2 hours in Agricultural Engineering 610 (included in the 24 hours credit of #1) and must attend the graduate seminar each semester whether registered or not.

3. A Master's thesis comprising 6 hours of Agricultural Engineering 500.

4. A final oral examination covering the thesis, related areas, and graduate coursework.

Agricultural Engineering Technology Requirements

1. A total of at least 24 hours in graduate coursework in Agricultural Engineering Technology and related areas. Minimum requirements are 12 hours in agricultural engineering technology; 9 hours in other agricultural, business, physical and biological science, or engineering-related areas (as approved by the graduate committee); and 3 optional hours from either one of these categories.

2. Active participation in graduate seminars conducted by the department. Resident students must register for a minimum of 2 hours in Agricultural Engineering Technology 552 (included in the 24 hours credit of #1) and must attend the graduate seminar each semester whether registered or not.

3. A Master's thesis comprising 6 hours of Agricultural Engineering Technology 500.

4. A final oral examination covering the thesis, related areas, and graduate coursework.

5. A minor in another subject area can be included in the program.

THE DOCTORAL PROGRAM

Concentrations for the doctoral program in Agricultural Engineering include agricultural power and machinery, agricultural structures and environment, agricultural electrical and electronic systems, food and process engineering, and soil and water conservation engineering. Students applying for entrance into the doctoral program must submit evidence of ability to perform and report independent research to the satisfaction of the department. The Master's thesis may be offered as such evidence. Scores on the GRE aptitude and engineering tests also are required.

Departmental Requirements

1. A minimum of 72 hours credit beyond the Bachelor's degree, excluding credits for the Master's thesis. Of this, 24 hours must be 600 level. Doctoral Research and Dissertation.

2. Graduate courses in agricultural engineering comprising a minimum of 18 hours credit.

3. Supporting graduate courses (outside the Agricultural Engineering Department) in related engineering, agricultural, mathematics, and other scientific fields comprising at least 24 hours.

4. The remaining minimum of 6 hours required for the degree may be taken either in agricultural engineering or related fields.

5. A minimum of 24 hours from coursework numbered greater than 500, of which at least 9 hours may be in courses numbered greater than 600.

6. Active participation in graduate seminars conducted by the department. Resident students must register for a minimum of 2 hours in Agricultural Engineering 610 and must attend the graduate seminar each semester whether registered or not.

7. Satisfactory performance in both written and oral comprehensive examinations prior to admission to candidacy. A final oral examination also is required which includes a defense of the dissertation and subject matter that the student's graduate advisory committee considers appropriate.

Agricultural Engineering

GRADUATE COURSES

430 Mobile Hydraulic Power System Design (2)  
Functional and operational characteristics of mobile hydraulic system components: pumps, valves and actuators; analysis and operational characteristics of hydraulic circuits. Prereq: Engineering Science and Mechanics 341. 1 hr and 1 lab. Sp/A

435 Design of Mechanisms for Agricultural Machines (2)  
Types of mechanisms; transmission angles; synthesis of plane mechanisms; introduction to space mechanisms. Prereq: Mechanical Engineering 465 or equivalent. 1 hr and 1 lab. Sp/A

440 Irrigation and Drainage Design (2)  
Design of irrigation and drainage systems; crop response; climate, water quantity and quality, and system characteristics. Prereq: 340 or equivalent. 2 hrs and 1 lab. Sp/A

445 Processing and Materials Handling Design (2)  
Development of systems and components for processing and utilization crops considering product characteristics, energy and mass balance, storage, handling and economic merit. Prereq: 330. 1 hr and 1 lab. Sp/A

450 Electrical Distribution and Utility Design (2)  
Design of off-farm electrical systems, control, motors, stray voltage, special electrical loads, and safety. Prereq: Electrical Engineering 301. 1 hr and 1 lab. Sp/A

455 Waste Management System Design (2)  
Waste renovation principles and livestock waste handling techniques; problem definition, feasibility study, analysis, synthesis, and preparation of plans and specifications. Prereq: Engineering Science and Mechanics 341; Plant and Soil Science 210; Industrial Engineering 405. Eng/Ag 599 and 1 lab. Sp/A

460 Design of Agricultural Structures (2)  
Design fundamentals for wood, steel and concrete components, compression and tension members; beam and column...
Agriculture

GRADUATE COURSES

512 Teaching Internship in Agriculture (1) Supervised experience in teaching, including preparation and evaluation of agriculture programs. May be repeated. Maximum 6 hrs. 3

Animal Science

(College of Agriculture and College of Veterinary Medicine)

MAJOR

DEGREES

Animal Science ..................... M.S., Ph.D.
Veterinary Medicine ................ D.V.M.

Kelly Robbins, Head

Professors:

Barth, K. M., Ph.D. ................ Rutgers
Bell, M. C. (Emeritus), Ph.D. ........ Oklahoma State
Bletner, J. K. (Emeritus), Ph.D. .......... Ohio State
Chamberlain, C. C. (Emeritus), Ph.D. ...... Iowa State
Erickson, B. H., Ph.D. ................ Kansas State
Hall, O. G., Ph.D. .................... Iowa State
Hansard, S. L. (Emeritus), Ph.D. ........ Florida

Lidvall, E. R. (Emeritus), M.S. ......... Tennessee
McDonald, T. P., Ph.D. ................ Tennessee
McLaren, J. B. (Emeritus), Ph.D. ........ Auburn
Merrimn, G. M. (Emeritus), D.V.M. ....... Michigan State
Miller, J. K., Ph.D. .................. Georgia
Murphree, R. L. (Emeritus), Ph.D. ........ Wisconsin
Richardson, D. O., Ph.D. .............. Ohio State
Robbins, K. R., Ph.D. ................... Illinois
Shirley, H. V. (Emeritus), Ph.D. ........ Illinois
Shrode, R. R., Ph.D. .................... Iowa State
Tugwell, R. L. (Emeritus), Ph.D. ........ Kansas State

Associate Professors:

Backus, W. R., Ph.D. ................. Tennessee
Bell, B. R., Ph.D. .................... NC State
Eiler, H., D.V.M., Ph.D. .............. Illinois
Godkin, J. D., Ph.D. ................. Massachusetts
Heitmann, R. N., Ph.D. ............... Maine
Henry, R. W., D.V.M., Ph.D. .......... Ohio
Hitchcock, J. P., Ph.D. ............... Michigan State
Kattes, H. G., Ph.D. ................... VPI
Masincup, F. B., Ph.D. ............... Kansas State
Oliver, C. D., Ph.D. ................... Ohio State
Schultz, T. W., Ph.D. ................... Tennessee
Sims, M. H., Ph.D. .................... Auburn
Wallier, J. C., Ph.D. .................... Nebraska

Assistant Professors:

Baumbach, G. A., Ph.D. ............... Florida
Chestnut, A. B., Ph.D. ................. Illinois
Crozet, S. E., D.V.M., Ph.D. .......... Ohio State
Quigley, J. D., Ph.D. ................... Virginia Tech
Smalling, J. D., Ph.D. ............... Texas A&M
Smith, M. O., Ph.D. ..................... Oklahoma State

The Department of Animal Science offers graduate programs leading to the Master of Science and Doctor of Philosophy with a major in Animal Science. At the M.S. level, areas of concentration are nutrition, breeding, physiology (reproductive, mammalian, and metabolic), and management with orientation towards beef cattle, dairy cattle, swine, and poultry. Since the department is also a part of the College of Veterinary Medicine, the areas of anatomy, systemic physiology (blood, cardiovascular, and neural), and histology are also available. The Ph.D. program offers concentrations in animal nutrition, animal breeding, animal physiology, animal anatomy, and animal management. For specific information, contact the department head.

During the first term of matriculation in each degree program, all graduate students are required to enroll in 595. Students are also required to enroll in 595 each fall term, and in 597 each spring term.

THE MASTER'S PROGRAM

For admission to the M.S. program, a student must have obtained a 3.0 grade-point average on a 4.0 scale (or a 3.0 each term during the junior and senior years) in a completed undergraduate degree program in one of the animal sciences or in a related area. The student must submit evidence (letters of recommendation, personal interview, etc.) that indicates ability to complete requirements for the M.S. 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 12 hours of graduate coursework must be completed the first term with a minimum grade-point average of 3.0 for admission to the M.S. program.

The program requires the writing of a thesis based on original research; the completion of a minimum of 24 hours of graduate coursework, of which at least 14 hours must be taken in courses numbered at or above the 500 level; and 6 hours of thesis. Included in the course requirement are 1 hour of Agriculture 512 and a minimum of 3 hours in statistics. These statistics courses must be chosen from the 400, 500, or 600 level of courses approved for use in the Intercollegiate Graduate Statistical Program (ICGSP). The remainder of the coursework will be selected jointly by the student and the major professor depending on the student's area of concentration and professional objectives.

The advisory committee will consist of the major professor, a faculty member of Animal Science, who will act as chairperson of the committee, and at least three other faculty members, one of whom may be outside of the Animal Science Department. The advisory committee approves the student's coursework and research problem and conducts the final oral examination which consists of a comprehensive oral examination and a defense of the thesis.

THE DOCTORAL PROGRAM

The doctoral program requires a minimum of 48 semester hours of coursework beyond the B.S. and a minimum of 24 hours of doctoral research and dissertation. Students must present their M.S. thesis research, their dissertation proposal, and the completed dissertation research in the departmental seminar. The 48 hours of coursework must include:

1. A minimum of 16 hours in related fields outside of animal science.
2. At least 24 hours credit at the 500 and 600 level, exclusive of doctoral research and dissertation, of which a minimum of 6 hours must be at the 600 level. Students in the nutrition, breeding, physiology, or anatomy concentration must complete at least 12 hours at the 500 and 600 level in the respective concentration or closely related area. Students in the management concentration must complete Animal Science 534 and 535 during the first 2 years at the 500 or 600 level in two non-management concentrations for a total of 12 hours (including 581).
3. A minimum of 1 hour of Agriculture 512 in addition to that required at the M.S. level.
4. A minimum of 6 hours in 400-, 500-, or 600-level statistics courses approved for the ICGSP.
5. A minimum of five faculty members will constitute the student's advisory committee, of which at least one must be outside Animal Science. The major professor will be the chairperson. The student and the major professor select a program of study depending on the student's area of concentration and professional goal. The advisory committee approves the coursework and the dissertation research proposal and determines if there is to be a foreign language requirement. The advisory committee conducts the comprehensive written and oral examination and the final dissertation defense examination.

GRADUATE COURSES

481 Beef Cattle Production and Management (3) Integration of principles of nutrition, physiology, and breeding into complete beef cattle management programs. Structure of industry, enterprise establishment, systems of production, production practices and herd improvement programs. Alternatives evaluated: production response and economic returns. Prereq: Animal science sophomore and junior core courses or consent of instructor. 2 hrs and 1 lab. Sp

482 Dairy Cattle Production and Management (3) Integration of principles of nutrition, physiology, and breeding into complete dairy cattle management program. Structure of industry, enterprise establishment, systems of production, production practices and herd improvement programs. Alternatives evaluated: production response and economic returns. Prereq: Animal science sophomore and junior core courses or consent of instructor. 2 hrs and 1 lab. Sp

483 Pork Production and Management (3) Integration of principles of nutrition, physiology, and marketing into complete pork production and management program. Structure of industry, enterprise establishment, systems of production, production practices and herd improvement program. Alternatives evaluated: production responses and economic returns. Prereq: Animal science sophomore and junior core courses or consent of instructor. 2 hrs and 1 lab. Sp

486 Lamb and Wool Production and Management (3) Integration of principles of new core, nutrition, breeding, physiology, and marketing into complete lamb and wool production and management programs. Structure of industry, enterprise establishment, systems of production, production practices and economic returns. Alternatives evaluated: production responses and economic returns. Prereq: Animal science sophomore and junior core courses or consent of instructor. 2 hrs and 1 lab. Sp

500 Thesis (1-15) P/NP only. E

502 Registration for Use of Facilities (3-15) Required for the student not otherwise registered during any semester when student uses University facilities and/or faculty time before degree is completed. May not be used toward degree requirements. May be repeated. S/NC only. E

511 Special Problems in Animal Science (1-4) Prereq: Consent of instructor and department head. May be repeated. Maximum 9 hrs. E

520 Animal Physiology (4) Major body systems and interrelationships: nervous, muscle, blood, cardiovascular, kidney, gastrointestinal, and endocrine. Concepts of metabolism, temperature regulation, and acid-base balance. Prereq: General undergraduate anatomy and physiology, and biochemistry, or consent of instructor. F, A

523 Advanced Mammalian Reproduction (3) Current topics and "new frontiers" in reproductive biology. Prereq: 322. Sp, A

524 Advances in Mammary Physiology (3) Development, anatomy, and function of mammary glands; endocrine interactions associated with mammary development and function; factors affecting yield and composition of mammary secretions. Prereq: 322 or consent of instructor. Sp, A

531 Analytical Techniques in Animal Sciences (3) Physical and chemical analyses of feeds, ingredients, tissues, and biological fluids associated with nutrition, physiology and food products research. Prereq: Consent of instructor. 1 hr and 2 labs. F

532 Experimental Techniques in Animal Nutrition (3) Animal feeding and growth and nutrition for growth, digestion, balance and radioisotope tracer studies. Prereq: 531. 1 hr and 2 labs. Sp

533 Nonruminant Animal Nutrition (3) Physiological development of feeding and digestion of nonruminant animal during the life cycle. Concepts and methodology concerning nutrient requirements, interrelationships, availability and deficiencies of nutrients. Nonruminant additives and environmental effects on nutrient utilization; nutritional effects on products. Prereq: 332 or consent of instructor. F

534 Ruminant Animal Nutrition (3) Digestive physiology of ruminant stomach, rumen fermentation, determination of nutrient requirements, and effects of diet and feed factors. Prereq: 332. Sp

541 The Genetics of Populations (2) Application and extension of principles and concepts learned in basic courses in genetics to study of genes, genetic linkage, and useful genetic material. Prereq: Basic courses in genetics and statistics. F or A

542 Applied Animal Breeding (3) Procedures for estimating population parameters, determination of response to various selection methods and breeding systems, estimation of genetic parameters, selection and application of animal breeding methodology. Prereq: 541 or equivalent. Sp, A

571 Design and Analysis of Biological Research (3) Experimental design and procedures; selection of experimental units; analysis and interpretation of data; statistical models and contrasts, analyses of variance; covariance models, and missing data. Prereq: 322. Sp, A

572 Least-Squares Analysis (2) Least-squares estimation and hypothesis testing procedures for linear models with possible singular covariance structures, multiple linear models, and models for categorical data. Prereq: 322. 2 hrs and 1 lab. F

573 Intermediate Statistical Computing (2) Application of statistical procedures to analysis and handling of data using computers; capabilities of existing software and hardware; statistical analysis methods with high speed digital computers. Prereq: 571 or equivalent; knowledge of UTK mainframe and software. 2 hrs and 1 lab. F

581 Advanced Livestock Management (3) Objective functions to evaluate alternative livestock production management policies. Systems approach to analysis and integration of reproductive management programs, genetic improvement policies, alternative feeding systems, and herd health programs. Consideration of time, risk, and uncertainty in livestock production. Tools, linear programming, as aids in decision-making and resource allocation. Prereq: Management, economics, computer science, statistics. 2 hrs and 1 lab. F

595 Colloquium in Animal Science (1) Orientation; teaching, research and extension programs. Guidance in preparation of student research and writing plans. Required of beginning graduate students in animal science program. S/NC only. E

596 Discipline Oriented Seminar (1) Required of all animal science graduate students. Presentations: animal science unusual studies and research plans. May be repeated. Maximum 5 hrs. S/NC only. E

597 Commodity Oriented Seminar (1) Required of all animal science graduate students. Presentations: beef and sheep, dairy, poultry, swine and veterinary sessions. May be repeated. Maximum 5 hrs. S/NC only. Sp

600 Doctoral Research and Dissertation (3-15) P/NP only. E

621 Advanced Topics in Animal Physiology (1-4) Recent advances and concepts, research techniques, current problems. May be repeated. Maximum 6 hrs. E

621 Advanced Topics in Animal Nutrition (1-4) Recent advances and concepts, research techniques, current problems. May be repeated. Maximum 6 hrs. E

623 Advanced Energy-Protein Nutrition (4) Chemical forms, digestion, absorption, intermediary metabolism, deficiencies, excesses of energy and protein. Prereq: 533 or 534, and Biochemistry 410 or Nutrition 511 or consent of instructor. A, Sp

633 Advanced Mineral-Vitamin Nutrition (4) Chemical forms, digestion, absorption, intermediary metabolism, deficiencies, excesses of minerals and vitamins. Prereq: 533 or 534, and Biochemistry 410 or Nutrition 511 or consent of instructor. A, Sp, F

633 Advanced Mineral-Vitamin Nutrition (4) Chemical forms, digestion, absorption, intermediary metabolism, deficiencies, excesses of minerals and vitamins. Prereq: 533 or 534, and Biochemistry 410 or Nutrition 511 or consent of instructor. A, Sp, F
61 Advanced Topics in Animal Breeding (1-4) Advances and concepts, research techniques, current problems. Prereq: 542 or equivalent. May be repeated. Maximum 6 hrs. E

642 Quantitative Breeding Research Methods and Interpretation (2) Estimation of genetic parameters: phenotypic, genetic, and environmental correlations; repeatability, heritability; and selection indexes from simulated and actual data. Prereq: 542, 1 hr and 1 lab. Sp, A

671 Advanced Research Planning (3) (Same as Plant and Soil Science 671). 

681 Advanced Topics in Animal Management (1-4) Recent advances and concepts, research techniques, current problems. May be repeated. Maximum 6 hrs. E

Animal Science-Veterinary Medicine

See Veterinary Medicine for program description.

GRADUATE COURSES

501 Special Topics in Anatomy and Physiology of Domestic and Laboratory Animals (1-4) May be repeated. Maximum 6 hrs. E

502 Registration for Use of Facilities (3-15) Required for the student not otherwise registered during any semester when student uses University facilities and/or faculty time before degree is completed. May not be used toward degree requirements. May be repeated. S, N, I, C only. E

521 Animal Physiology (3) Introduction to major body systems and interrelationships: nervous, muscle, blood, cardiovascular, endocrine glands of various animal species. Prereq: 521 or consent of instructor. Maximum 6 hrs. E

551 Mammalian Organology (3) Microscopic study of structure of organs and major organ systems. Prereq: Embryology, histology and/or consent of instructor. 2 hrs and 1 lab. Sp

552 Anatomy of Domestic Carnivores (4) Gross dissection by systems and regions of dog with comparison to cat. Prereq: Consent of instructor. 1 hr and 3 labs. F

553 Anatomy of Farm Animals (3) Gross dissection by regions of horse, cow and pig with lecture/demonstration. Prereq: 552 and/or consent of instructor. Sp

554 Comparative Hematology (3) Morphology, physiology and development of blood and blood forming organs; similarities and differences of major domestic and laboratory species. Prereq: Undergraduate physiology and/or consent of instructor. 2 hrs and 1 lab. Sp

555 Anatomy of the Central Nervous System (1) Gross and microscopic anatomy of mammalian brain and spinal cord using sheep as model. Prereq: Consent of instructor. Sp

651 Advanced Topics in Animal Anatomy (1-4) Current and future research methodology, laboratory situation, recent advances in quantitative techniques for gross and microscopic anatomy. Prereq: Consent of instructor. May be repeated. Maximum 6 hrs. E

652 Disorders of the Endocrine System (2) Pathological and physiological aspects of diseases; endocrine glands of various animal species. Prereq: 521 or consent of instructor. Sp

653 Advanced Mammalian Neurophysiology (3) Advanced physiological theories and principles related to normal function of central and peripheral nervous systems. Special senses and current electrodagnostic procedures for evaluating neural systems. Prereq: Advanced course in animal physiology or equivalent and an advanced neuroanatomy course, or Psychology 526, and consent of instructor. Sp

Anthropology

(College of Liberal Arts)

MAJOR

Anthropology ........................................ M.A., Ph.D.

William M. Bass, Head


Research Associate Professor: Chapman, Jefferson, Ph.D. .......... North Carolina

Assistant Professors: Smith, Maria O., Ph.D. .......... Tennessee Tardif, Suzette D., Ph.D. .......... Michigan State

The Department of Anthropology offers both the M.A. and Ph.D. degrees with concentrations in biological anthropology, archaeology, cultural anthropology, and zooarchaeology. Additional information on the Anthropology graduate program may be obtained from the departmental brochure or by contacting the Anthropology Department.

THE MASTER'S PROGRAM

For admission, an applicant must provide three letters of recommendation and a letter of intent. An undergraduate background in anthropology is required, but students lacking this may be admitted under special circumstances.

M.A. Requirements

1. A minimum of 30 hours for graduate credit. A minimum of 24 of these hours must be in anthropology, including the following:
   a. 510 and 560
   b. one of the following courses: 512, 513, 514, 515
   c. one of the following courses: 520, 531, 561, 564
   d. two of the following courses: 580, 581, 582, 583

These requirements must be met prior to taking the Graduate Evaluation Examination. 2. Successful completion of the departmentally developed Graduate Evaluation Examination (GEE). It is expected that it will be taken at the end of the third semester in residence. The GEE is given each year in January. 3. An introductory statistics course (usually Statistics 531) if such a course has not been previously taken. 4. Successful completion of the thesis and final oral examination.

THE DOCTORAL PROGRAM

An incoming student should possess an M.A. in Anthropology. Students with an M.A. in another discipline may be admitted after completing specific requirements outlined in the departmental brochure. In addition to the requirements prescribed by The Graduate School for the Ph.D., the Anthropology Department requires the following:

1. Formulation of an advisory committee and establishment of a program of study in consultation with the committee.
2. No minimum credit hour requirement. Specific courses to be taken are determined by students and their advisory committees.
3. Students should plan to devote a minimum of 4 years beyond the B.A. to attain the Ph.D.
4. Demonstration of competence in statistics by completing Statistics 531 and 532 with a grade of B or better.
5. Demonstration of knowledge of one foreign language. This language should normally be French, German, Russian or Spanish, but another language may be substituted at the committee's discretion. This requirement may be met by:
   a. Successful performance on a language examination administered by the appropriate language department. Students electing this alternative should consult with their advisor.
   b. Completion of the intermediate (200 level) sequence of a language with a grade of B or better in the second semester.
   c. Completion of the second semester of specialized reading courses for graduate students with a grade of B or better.
   6. Written and oral comprehensive examinations in three areas of specialization to be determined by the committee.
   7. Successful completion of a dissertation and defense examination.

ACADEMIC COMMON MARKET

An agreement among southern states for sharing graduate programs allows legal residents of some states to enroll in certain programs at UT Knoxville on an in-state tuition basis. The M.A. program in Anthropology is available to residents of the states of Louisiana, South Carolina or Virginia. The Ph.D. program is available to residents of Alabama, Arkansas, Louisiana, Mississippi, South Carolina or West Virginia. Additional information may be obtained from the Residency Assistant in the Office of Graduate Admissions and Records.

GRADUATE COURSES

410 Principles of Cultural Anthropology (3) Exploration and illustration of major concepts, theories, and
methods in cultural anthropology, with application to analysis of specific ethnographies. Prereq: 130.

411 Linguistic Anthropology (3) Basic linguistic concepts applied to research in cultural anthropology; investigative strategies using folktale and folklore materials from various tribal, peasant, and complex societies. Prereq: 130 or consent of instructor.

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

413 Dynamics of Culture (3) Major forms of culture change, ranging from evolution and diffusion to religious revivification and political revolt. Continuity and change in diverse cultural settings through use of archaeological, ethnohistoric, and contemporary cases. Prereq: 130.

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

450 Current Trends in Anthropology (3) Analytical, integrative review of current directions of research and theory in anthropology.

460 Selected Topics in Archaeology (3) Regional or theoretical specializations by prehistoric and contemporary scholars. Prereq: 130 or consent of instructor. May be repeated. Maximum 6 hrs.

461 African Prehistory (3) African cultural history from earliest evidence of human activity to time of European contact. Stone age of African south of Sahara. Prereq: 120 or consent of instructor. (Same as Afro-American Studies 461.)

462 Early European Prehistory (3) Origins and evolution of human culture in Europe through beginnings of settled life. Paleolithic and Mesolithic chronology and lifeways. Prereq: 120 or consent of instructor.

463 Rise of Complex Civilizations (3) Development of complex societies in Old World from origins of agricultural economics to rise of States. Mesolithic, Neolithic, and Metal Age lifeways in Africa, Europe, and Asia. Prereq: 120 or consent of instructor.

464 Principles of Zooarchaeology (3) Basic osteological studies of major vertebrate groups; cultural use of animals; in subsistence and culture. Identification and interpretation of archaeologically derived molluscan and vertebrate remains; introduction to laboratory use of comparative collections. Prereq: 120 or consent of instructor.

465 Human Osteology (4) Intensive examination of human skeleton. Prereq: 110 and consent of instructor. 3 hrs and 1 lab.

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

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

Museology III: Field Projects (1-12) (Same as Art 482.)

480 Advanced Human Variation (3) Genetic and morphological variation among extant human groups; relations between evolution and diffusion; interpretation of statistical results. Linear models. Prereq: Statistics 532 or equivalent.

483 Skeletal Biology (3) Practical and theoretical approaches to analysis of prehistoric human skeletal remains. Demography, vital statistics, pathology, nutrition, and measures of biological relationships as related to population as adaptive unit. Prereq: 480.

484 Methodology in Biological Anthropology (3) Application of statistical techniques to biocultural problems; interpretation of statistical results. Linear models. Prereq: Statistics 532 or equivalent.

485 Anthropometry (3) Techniques of measuring and describing skeletal material and human subjects: practical applications to growth, nutrition and human engineer. Prereq: Consent of instructor.

486 Bone Anatomy and Physiology (3) Examination of bone microstructure, cellular anatomy, hormonal regulation and micro and macroanatomical response to loading and stress. Prereq: 480 or consent of instructor.

500 Seminar in Forensic Anthropology (3) Discussion and lab experience with forensic anthropological techniques: radiographic and dental, hair, bone microstructure. Prereq: Human Origins, 480, 561 or consent of instructor. 2 hrs and 1 lab.

512 Synthetic Prehistory (3) Evolutionary background of primate studies to human ethology. Prereq: 110 or consent of instructor. May be repeated. Maximum 6 hrs.

519 Seminar in Social Change (3) Focus on social change in general and its relationship to the physical world, emphasizing its effects on the human mind. Prereq: Consent of instructor. May be repeated. Maximum 6 hrs.

521 Laboratory Studies in Zooarchaeology (4) Examination and comparison of skeletons of major vertebrate groups; shells of terrestrial and aquatic mollusks, in relation to animal remains from archaeological contexts. Basic osteology and shell characters of species encountered in aboriginal sites; use of comparative collections. May be repeated once. Maximum 5 hrs.

530 Fieldwork in Archaeology (3-9) Practicum in surveying, excavating, processing, and analysis of archaeological data. Prereq: Consent of instructor. May be repeated. Maximum 9 hrs.

531 Quantitative Methods in Archaeology (3) Application of quantitative techniques to archaeological data critically examined through literature and problem solving. Basic and advanced statistical analyses and other mathematical methods. Prereq: Consent of instructor.

564 Archaeology of Southeastern United States (3) Archaeological research on prehistoric American Indian cultures in Southeastern United States. Tennessee prehistory.

580 Advanced Human Variation (3) Genetic and morphological variation among extant human groups; relations between evolution and diffusion; interpretation of statistical results. Linear models. Prereq: Statistics 532 or equivalent.


583 Skeletal Biology (3) Practical and theoretical approaches to analysis of prehistoric human skeletal remains. Demography, vital statistics, pathology, nutrition, and measures of biological relationships as related to population as adaptive unit. Prereq: 480.

584 Methodology in Biological Anthropology (3) Application of statistical techniques to biocultural problems; interpretation of statistical results. Linear models. Prereq: Statistics 532 or equivalent.

585 Anthropometry (3) Techniques of measuring and describing skeletal material and human subjects: practical applications to growth, nutrition and human engineering. Prereq: Consent of instructor.

586 Bone Anatomy and Physiology (3) Examination of bone microstructure, cellular anatomy, hormonal regulation and micro and macroanatomical response to loading and stress. Prereq: 480 or consent of instructor.

587 Laboratory in Forensic Anthropology (3) Discussion and lab experience with forensic anthropological techniques: radiographic and dental, hair, bone microstructure. Prereq: Human Origins, 480, 561 or consent of instructor. 2 hrs and 1 lab.

591 Foreign Study (1-15) See page 31.

592 Off-Campus Study (1-15) See page 31.

593 Independent Study (1-15) See page 31.

600 Doctoral Research and Dissertation (3-15) P/NP only. E

601 Advanced Graduate Research (1-6) Independent investigation of special problems in anthropology by advanced graduate students. May be repeated. Maximum 12 hrs. Only 3 hrs may count toward 600-level requirement.

610 Seminar in Cultural Anthropology (3) Selected topical seminar, primarily for doctoral students in cultural anthropology. May be repeated. Maximum 6 hrs.

611 Theory in Cultural Anthropology (3) Critical evaluation of current issues in theory and data interpretation, primarily for doctoral students in cultural anthropology.

620 Seminar in Nutritional Anthropology (3) Analytical review of major theoretical viewpoints in nutritional anthropology. Prereq: 518 and consent of instructor.

663 Seminar in Archaeological Methodology (3) Selected topics in prehistoric and historic archaeology. May be repeated. Maximum 6 hrs.

681 Selected Topics in Physical Anthropology (3) For doctoral students in biological anthropology. May be repeated. Maximum 6 hrs.

683 Advanced Seminar in Archaeology (3) Selected topics in prehistoric and historic archaeology. May be repeated. Maximum 6 hrs.

691 Selected Topics in Paleoenthropology (3) May be repeated. Maximum 6 hrs.

695 Gross Human Anatomy (9) Skeletal, muscles, and cardiovascular system. Dissection of cadavers. Prereq: 480 or Human Biology, 5 hrs and 5 labs.
Architecture

(Office of the Provost)

J. William Rudd, Dean
William J. Lauer, Associate Dean

Professors:

Andersen, G. L., M.Arch
Conley, G. B., Arch.
Griefer, F., M.Arch.
Kelso, R., M.S.
Lauer, W. J., M.S.Arch.
Lester, A. J., M.Arch.
Lizon, P., Ph.D.
Moffett, M. S., Ph.D.
Robinson, M. A., M.Arch
Rudd, S. W., M.A.
Shell, W. S., M.S.Arch.
Watson, J. S., M.Arch.
Wodhouse, L. M., Ph.D.

Associate Professors:

Herz, M. D., B.Arch.
Kinzy, S. A., M. Arch.
Martella, W. E., B. Arch.
Narancic, V., B. Arch.
Rabun, J. S., M.A.

Assistant Professors:

Bovill, C. H., M.Arch.
Coddington, J., M.Arch.
French, R. C., B.Arch.
Kaplan, M., M.Arch.
Livingston, M., M.F.A.
Reno, J. E., M.Arch.
Slucky, H., B.Arch.
Ware, S. M., B.Arch.
Wells-Bowie, L., M.Arch.
Wooley, D. L., M.Arch.

The School of Architecture does not currently offer a graduate degree program; however, the courses listed below are available for graduate credit to students enrolled in other graduate programs.

Besides the undergraduate five-year Bachelor of Architecture degree program, the School of Architecture offers a three-year degree program leading to a Bachelor of Architecture to students who already hold a Bachelor's degree or an advanced degree in another field.

This program begins with intensive initial studies in architecture and can be completed within three years. A minimum of 6 semesters residency is required. The degree is the first professional degree recognized for purposes of eventual qualification for the license to practice architecture.

Applicants must provide a transcript of previous academic work and demonstrate a proficiency in freehand and orthographic drawing skills prior to entering Basic Architecture I. If an otherwise qualified student does not have these skills, he/she can come to the School of Architecture the summer before entering the second degree program and take an intensive drawing course which will fulfill the prerequisite.

Please consult The University of Tennessee Undergraduate Catalog for the minimum requirements of the Second Degree Program.

ACADEMIC COMMON MARKET

An agreement among southern states for sharing graduate programs allows legal residents of some states to enroll in certain programs at UT Knoxville on an in-state tuition basis. The B.Arch. program in Architecture is available to residents of the states of Maryland, South Carolina, or West Virginia. Additional information may be obtained from the Residence Assistant in the Office of Graduate Admissions and Records.

GRADUATE COURSES

403 Introduction to Preservation (3) History, theory, and legal aspects of architectural preservation and restoration.

404 Preservation Technology (3) Techniques of preservation: methods of analysis, history of materials and technology used in old buildings.

405 Descriptive Analysis of Historic Buildings (3) Identification and analysis of characteristic elements of buildings from various architectural periods, American architecture. Survey techniques.

410 History and Theory of Urban Form (3) Patterns of community development. Selected historical and contemporary examples. Basic urban design issues and exemplary design approaches through lectures, readings, essays, and sketch studies. Historical change in urban form and design.

411 Architecture Since 1945 (3) Recent architectural developments and views of future.

412 Non-Western & Indigenous Architecture (3) Building responsive to climate, material availability, and economic level, as designed by anonymous builders. Pre-historic times to present throughout world. Fertile Crescent; Indus Valley; Hindu, Buddhist, and Mughal architecture of India, China, and Japan.

413 Tennessee Architecture (3) History of settlement patterns and building in Tennessee. Reading assignments, lectures, discussion, and field trips. Historical research using primary material.

414 History of Architectural Technology (3) Building materials and construction techniques from antiquity to present.

415 Medieval Architecture (3) History of architecture from decline of Rome to beginning of Renaissance.


420 American Architecture, 1840-1940 (3) Stylistic periods from Gothic Revival through twentieth century.

421 History of Landscape Architecture (3) Intelectual, societal, and geographical influences that provide theoretical basis for design throughout history. Selected examples of landscape architecture analyzed in terms of design.

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

425 Special Topics in History, Theory and Criticism (1-4) Special topics in history-related subjects. May be repeated. Maximum 6 hrs.


443 Building Energy Analysis (3) Balancing heat flow through external skin of residential and small and large commercial buildings. Local climate evaluation. Site planning, building size and orientation, window area, wall treatment, infiltration control, and other design elements. Energy use quantification methods and economic analysis of energy efficient design features. Architectural program analysis of external and internal load dominated buildings. Prereq: 342.

444 Advanced Environmental Control Systems (3) In-depth analysis and innovative concepts in design of heating, ventilating, and air conditioning. Prereq: 341.

445 Advanced Lighting (3) In-depth analysis and innovative concepts in design of lighting. Prereq: 342.

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

Art

(Office of Liberal Arts)

MAJOR

DEGREE

Art

M.F.A.

Don. F. Kurka, Head
William C. Kennedy, Associate Head

Professors:

Blain, Sandra J., M.F.A.
Brakke, P. M., M.F.A.
Clarke, R. A., M.S.
Cleaver, Dale G. (Emeritus), Ph.D.
Falsetti, Joseph S., M.S.
Kennedy, William C. M.F.A.
Kurka, Don F., Ph.D.
Leeland, W. E., M.F.A.
Livingston, P. R., M.F.A.
Martinson, Fred, Ph.D.
Nichols, P. G., M.F.A.
Peacock, D., M.F.A.
Stewart, F. C., M.F.A.

Associate Professors:

Daehnert, R. H., M.F.A.
Darrow, J. F., Ed.D.
Goldenstein, M. B., M.F.A.
Habel, Dorothy, Ph.D.
Lee, B., M.F.A.
LeFeuvre, Richard M.F.A.
Moffatt, F., Ph.D.
Netf, A., Ph.D.
Riesing, T., M.F.A.
Saupe, T., M.F.A.
Yates, S., M.F.A.

North Carolina (Greensboro)
Assistant Professors:

The Master of Fine Arts is the terminal degree in studio art. It is offered in the concentration areas of ceramics, graphic design/illustration, drawing, fiber-fabrics, painting, printmaking, sculpture, and watercolor. Inter-area studies are available with consent of the faculty. THE MASTER'S PROGRAM
To become a candidate, the applicant must be admitted by The Graduate School and approved by the Department of Art. In addition to the admission requirements of The Graduate School, the Department of Art specifically requires the following:

1. A detailed letter of intent including statement requesting assistantship, if desired.
2. Three letters of recommendation from former professors or professionals in the field.
3. An undergraduate major in art or evidence of equivalent proficiency.
4. A portfolio to be evaluated by the faculty. Further information is available by writing to the Department of Art.

M.F.A. Requirements
A minimum of 60 hours is required:
1. Successful completion of 20 hours of study in a concentration area. An inter-area program must be approved by the graduate faculty only after the second semester in residence. Ten hours of concentration must be in second year courses (512, 514, etc.).
2. A minimum of 9 hours of art history for graduate credit.
3. Eleven hours of electives which may consist of any combination of courses offered by the University for graduate credit.
4. Art 599, Project in lieu of Thesis (20 hours). A third year of semi-independent study. Student must have completed all other coursework prior to registration.
5. A student with the permission of the area faculty may petition to take 3 hours of outside acacemics as a substitute for 3 hours of art history, but not in a concentration area. The petition is to be presented to the graduate committee for final approval and should directly address the need and relevance of this substitution to the student's concentration.

Four semesters (normally the first 40 hours) beyond the Bachelor's degree are required in residence. An exception is made for working professional designers who may complete their first 20 hours, with the permission of the faculty, on a part-time basis. Residence is defined by the Department of Art as (1) a minimum enrollment of 6 hours per semester and (2) use of Department of Art facilities so that students are available for discussion and criticism.

The candidate's committee will consist of a minimum of 3 members and a maximum of 6 members and will be appointed prior to registration for Art 599. Three members of the committee shall be as follows: one from the candidate's concentration area who shall be the major professor, one from art history, and one from a studio discipline outside the concentration area.

Exhibition and oral examination: With the completion of all requirements for the M.F.A., the student must produce an exhibition and, in the presence of work, must satisfactorily complete an oral examination.

Academic Standards
1. First-year evaluation: At the end of the first 2 semesters in residence, the student must present work for evaluation by the faculty and receive permission to continue in the program.
2. Second-year evaluation: With completion of all coursework, the student must present work for evaluation by the faculty and receive permission to register for Projects in Lieu of Thesis.
3. If, in a review by the student's major area faculty, the student's progress is deemed insufficient, the faculty may recommend a working period without advancement toward the degree, probation with specific goals set for a specific time, or dismissal.

ACADEMIC COMMON MARKET
An agreement among southern states for sharing graduate programs allows legal residents of some states to enroll in certain programs at UT Knoxville on an in-state tuition basis. The M.F.A. program in Art is available to residents of the state of Alabama. Additional information may be obtained from the Residency Assistant in the Office of Graduate Admissions and Records.

GRADUATE MINOR IN THE HISTORY OF ART
A graduate minor in Art History may be arranged with consent of the student's committee, the instructors involved, and The Graduate School. Prerequisite is an undergraduate Art History minor, or its equivalent, and reading knowledge of French, German, or Italian, unless waived by the Art History faculty.

GRADUATE COURSES
401 Fiber: Advanced Projects (3-6) Prereq: 302 or consent of instructor. May be repeated. Maximum 12 hrs.
402 Fabric: Advanced Projects (3-6) Prereq: 301 or consent of instructor. May be repeated. Maximum 12 hrs.
405 Advanced Computer Enhanced Design (3) Prereq: 404 or consent of instructor. May be repeated. Maximum 6 hrs.
406 Goldsmithing (3-6) Metalworking techniques: granulation, electroforming, electroplating, electropolishing, anodizing, and photo processes with individual studio problems to develop personal style of expression. Prereq: 6 hrs of metalsmithing or consent of instructor. May be repeated. Maximum 12 hrs.
409 Special Topics in Fiber/Fabric (3) Student-instructor-initiated course offered at convenience of department. Prereq: Determined by department. May be repeated. Maximum 12 hrs.
411 Drawing IV (6) Individualized pursuit of personal drawing techniques and concepts; supplemented by individual and group critiques; weekly life drawing sessions. Prereq: 311. May be repeated. Maximum 12 hrs.
413 Painting IV (6) Individual concepts and personal expression with varied media. Prereq: 313. May be repeated. Maximum 12 hrs.
419 Special Topics in Drawing and Painting (3) Student-instructor-initiated course offered at convenience of department. Prereq: Determined by department. May be repeated. Maximum 12 hrs.
424 Ceramics: Clay and Glazes (3) Clay chemistry, clay bodies, glaze theory, glaze calculation, intensive formulating, mixing and testing of clay bodies and glaze formulas. Prereq: 321 and 322.
425 History of Ceramics Seminar (3) Ceramics from ancient through contemporary. Ceramics sculpture, and vessel aesthetic. Slide lectures and individual presentations. May not be used toward art history requirement. Prereq: 321 and 322.
426 Kilns: Design, Construction and Operation (3) Designing kilns, traditional and modern refractories, construction methods, and operation of wood, gas, and electric kilns. Prereq: 321 and 322.
429 Special Topics in Ceramics (3) Student-instructor-initiated course offered at convenience of department. Prereq: Determined by department. May be repeated. Maximum 12 hrs.
439 Special Topics in Photography (3) Student-instructor-initiated course offered at convenience of department. Prereq: Determined by department. May be repeated. Maximum 12 hrs.
441 Advanced Sculpture (3-6) Individual development of sculptural problems and techniques. Prereq: 6 hrs of 300 level sculpture. May be repeated. Maximum 12 hrs.
449 Special Topics in Sculpture (3) Student-instructor-initiated course offered at convenience of department. Prereq: Determined by department. May be repeated. Maximum 12 hrs.
453 Advertising Illustration (3) Advertising illustration media and techniques as applied to product illustration. Prereq: 354.
454 Editorial Illustration (3) Editorial illustration media and techniques as applied to book, magazine, and newspaper illustration. Prereq: 453.
456 Graphic Design/Illustration Practicum (1-12) Practical experience in design or illustration field. Only by prearrangement with department. Prereq: Senior standing and consent of instructor. May be repeated. Maximum 12 hrs.
459 Special Topics in Graphic Design/Illustration (3) Student-instructor-initiated course offered at convenience of department. Prereq: Determined by department. May be repeated. Maximum 12 hrs.
462 Intaglio III (3-6) Individual projects through advanced color printing methods and combinations with other print media. Prereq: 362. May be repeated. Maximum 12 hrs.
463 Lithography III (3-6) Individual projects through advanced color etching methods from stones and aluminum plates. Prereq: 363. May be repeated. Maximum 12 hrs.
469 Special Topics in Printmaking (3) Student-instructor-initiated course offered at convenience of department. Prereq: Determined by department. May be repeated. Maximum 12 hrs.
partment. Prereq: Determined by department. May be repeated. Maximum 12 hrs.

471 History of North American Art (3) Landmarks in painting, sculpture, architecture, and design from prehistory to 1900.

472 History of 20th-Century American Art (3) Development in architecture, painting, and design from 1900.

473 19th-Century American Painting (3) From West and Copley to emergence of "The Eight." 

474 History of Modern Architecture in Europe and America (3) 19th-century styles, Sullivan and skyscraper. 20th-century: Viennese leaders, the Bauhaus, Gropius, Van der Rohe, Le Corbusier, and Wright. Aslo to Kahn, Tange and Metabolism, Archigram, Soleri, and Venturi.

475 History of the 19th-Century Painting in Europe and America (3) France: Neoclassicism, Romanticism, Friedrich, Constable, Turner, Corel and Barbizon landscapists, Hudson River Group, Pre-Raphaelite Brotherhood, Manet, Courbet, Impressionism, Eakins, Homer, Seurat through Cezanne.

476 History of 20th-Century Painting in Europe and America (3) Fauvism, Die Brucke, Cubism, Der Blaue Reiter, Futturism, Dada and Surrealism, geometric abstraction, social commentary painting, Abstract Expressionism in U.S. and parallelism in Europe. Pop, Op, Minimal and Concept art.

477 Special Topics in Art History (3) Student- or instructor-initiated course offered at convenience of department. Prereq: Determined by department. May be repeated. Maximum 12 hrs.

481 Museology I: Museums, Purpose and Function (3) Development of museums of art, history, and anthropology. (Same as Anthropology 481.)

482 Museology II: Exhibition Planning and Installation (3) Exhibition concept development and implementation. Exhibition design and installation techniques. Publicity, production, mounting and training, shipping and storage. Prereq: 481 or consent of instructor. (Same as Anthropology 482.)

483 Museology III: Field Projects (1-12) Special field projects: restoration, preservation, registration, and other related research on or off campus. Prereq: 481 and 482. May be repeated. Maximum 12 hrs. (Same as Anthropology 483.)

485 History of Printmaking (3) Prints from 15th century to present. 20th century in Europe and U.S. Prereq: 172 and 173.

486 Art of Indian Asia (3) History of Indian art: Central Asia and Southeast Asia.

487 Studies in Art History (3) Concentration in individually selected area. Prereq: 12 hrs of art history, and consent of instructor. May be repeated. Maximum 6 hrs.

494 Individual Problems (3) Prereq: Consent of instructor. May be repeated. Maximum 12 hrs.

499 Special Topics (3) Student- or instructor-initiated course offered at convenience of department. Prereq: Determined by department. May be repeated. Maximum 12 hrs.

502 Registration for Use of Facilities (3-15) Required for the student not otherwise registered during any semester when student uses University facilities and/or faculty time before degree is completed. May not be used toward degree requirements. May be repeated. S/NC only. E

505 Graduate Fiber and Fabric I (2-6) May be repeated. Maximum 10 hrs.

506 Graduate Fiber and Fabric II (2-6) May be repeated. Maximum 10 hrs.

511 Graduate Drawing I (2-6) May be repeated. Maximum 10 hrs.

512 Graduate Drawing II (2-6) May be repeated. Maximum 10 hrs.

513 Graduate Painting I (2-6) May be repeated. Maximum 10 hrs.

514 Graduate Painting II (2-6) May be repeated. Maximum 10 hrs.

515 Graduate Watercolor I (2-6) May be repeated. Maximum 10 hrs.

516 Graduate Watercolor II (2-6) May be repeated. Maximum 10 hrs.

521 Graduate Ceramics I (2-6) May be repeated. Maximum 10 hrs.

522 Graduate Ceramics II (2-6) May be repeated. Maximum 10 hrs.

525 Graduate Ceramics II (2-6) May be repeated. Maximum 10 hrs.

541 Graduate Sculpture I (2-6) May be repeated. Maximum 10 hrs.

542 Graduate Sculpture II (2-6) May be repeated. Maximum 10 hrs.

551 Graduate Graphic Design/Illustration I (2-6) May be repeated. Maximum 10 hrs.

552 Graduate Graphic Design/Illustration II (2-6) May be repeated. Maximum 10 hrs.

561 Graduate Printmaking-Inaglio I (2-6) May be repeated. Maximum 10 hrs.

562 Graduate Printmaking-Inaglio II (2-6) May be repeated. Maximum 10 hrs.

563 Graduate Printmaking-Lithography I (2-6) May be repeated. Maximum 10 hrs.

564 Graduate Printmaking-Lithography II (2-6) May be repeated. Maximum 10 hrs.

565 Graduate Printmaking-Screen Printing I (2-6) May be repeated. Maximum 10 hrs.

566 Graduate Printmaking-Screen Printing II (2-6) May be repeated. Maximum 10 hrs.

571 Studies in Medieval Art (3) Art and architecture of Middle Ages: major monuments from Byzantium or western Europe. Prereq: M.F.A. candidate or consent of instructor. May be repeated with consent of department. Maximum 6 hrs.

572 Studies in Italian Renaissance Art (3) Art and architecture of 14th, 15th, and/or 16th centuries in Italy. Early or High Renaissance or Mannerist periods. Prereq: M.F.A. candidate or consent of instructor. May be repeated with consent of department. Maximum 6 hrs.

573 Studies in Baroque Art (3) 17th-century art and architecture; major artists and works from southern or northern Europe. Prereq: M.F.A. candidate or consent of instructor. May be repeated with consent of department. Maximum 6 hrs.

574 Studies in Modern Western Art (3) Selected topics in 19th- and 20th-century western art. Prereq: M.F.A. candidate or consent of instructor. May be repeated with consent of department. Maximum 6 hrs.

575 Studies in Modern American Art (3) Selected topics in 19th- and 20th-century American art. Prereq: M.F.A. candidate or consent of instructor. May be repeated with consent of department. Maximum 6 hrs.

576 Studies in Asian Art (3) Selected topics in Japanese or Chinese art. Prereq: M.F.A. candidate or consent of instructor. May be repeated with consent of department. Maximum 6 hrs.

579 Special Topics in Art History (3) Student- or instructor-initiated course offered at convenience of department. Prereq: M.F.A. candidate or consent of instructor. May be repeated with consent of department. Maximum 9 hrs.

590 Seminar in Art Criticism (3) Theory and practice. Prereq: M.F.A. candidate or consent of instructor.

591 Foreign Study (1-15) See page 31.

592 Off-Campus Study (1-15) See page 31.

593 Independent Study (1-15) See page 31.

595 Visiting Artist Seminar (2) Contemporary art issues by different visiting artists. May not be used toward art history requirement. May be repeated. Maximum 8 hrs.

599 Projects in Lieu of Thesis (10) Prereq: All graduate course work and successful second year evaluation by graduate faculty. May be repeated. Maximum 20 hrs. S/NC only. E

Courses listed below offered periodically only at the Pi Beta Phi Arrowmont School of Crafts, Gatlinburg, Tennessee. Courses may be repeated. Upon admission to the M.F.A. program at UT Knoxville, a student may apply certain graduate courses taken at Arrowmont toward the degree, subject to the approval of the student's graduate committee.

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

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

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

430 Photography (2-4) Intermediate to advanced. May be repeated.

440 Painting/Watercolor (2-4) Intermediate to advanced. May be repeated.

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

460 Fiber (2-4) Intermediate to advanced. May be repeated.

470 Fabric (2-4) Intermediate to advanced. May be repeated.

480 Enameling (2-4) Intermediate to advanced. May be repeated.

490 Wood (2-4) Intermediate to advanced. May be repeated.

Art and Music Education

(College of Education)

MAJORS

DEGREES

Art Education ........................................... M.S.

Music Education ....................................... M.S.

Charles H. Ball, Head

Professors:

Ball, Charles H., Ph.D........................ Peabody

Hull, H. N., Ed.S........................ Peabody

Humphreys, A. W. (Emeritus), Ed.D...... Illinois

Jones, J. H. (Emeritus), Ed.D................. Columbia

Julian, W. J., Ph.D................................. Michigan

Moore, M. C., Ph.D................................. Northwestern

Robertson, J. W. (Emeritus), E.D............ Columbia

Tippes, A. W., Ph.D............................... Michigan

Associate Professors:

Gill, H. L. (Emeritus), B.S ......................... Milwaukee State Teachers

McDaniel, Walter H. (Emeritus), M.S ........ Tennessee

Mintz, J. O., Ed.D................................. Columbia

Santl, J. R., M. S................................. Tennessee

Watkins, J. Paul, M.S............................ Tennessee

Assistant Professor:

Root, Patricia, M.A ......................... Washington State

The Department of Art and Music Education offers graduate programs leading to the Master of Science with a major in Art Education or in Music Education. Although degree require-
ments are sufficiently flexible to allow programs to be tailored to the specific needs of the individual, all emphasize a balance between creative work in the arts discipline, advanced teaching techniques, and a study of the philosophical and historical foundations of the field.

For additional information, contact the head of the Department of Art and Music Education, Room 211-A Music Building: (515) 974-3331.

Art Education

The Master of Science program requires Art Education 510, 520, and 593; 6 hours of 500-level courses in art history; 6 hours of 500-level courses in studio art; Curriculum and Instruction 580; 6 hours of 500-level elective courses in education; and 6 hours of Thesis 500.

The thesis may be of the conventional type or an exhibition of original works of art produced under the direction of Art and Art Education faculty and accompanied by a written analytical and critical essay. This essay must include a) a philosophical statement; b) an explanation of process and media for each work presented, and c) a compositional analysis of each work. A comprehensive written examination will be required during the final semester of work.

GRADUATE COURSES

500 Thesis (1-15) P/NP only. E
502 Registration for Use of Facilities (3-15) Required for the student not otherwise registered during any semester when student uses University facilities and/or faculty time before degree is completed. May not be used toward degree requirements. May be repeated. S/NC only. E
510 Foundations of Music Education (3) Historical, philosophical and aesthetic bases. Prereq: Consent of instructor.
520 Research in Music Education (3) Definition of research problems, data collection and analysis, and research report writing. Application of knowledge of research techniques to analysis of existing research literature in music education. Prereq: Consent of instructor.
530 Advanced Band Literature and Conducting (3) Reading, conducting, and interpreting band scores suitable for school, college, and community bands; contemporary and standard band literature. Prereq: Consent of instructor.
540 Advanced Choral Literature and Conducting (3) Reading, conducting, and interpreting vocal scores suitable for school, church, and community groups. Prereq: Consent of instructor.
550 Curriculum Development and Evaluation in Music Education (3) Principles of curriculum development applied to music education programs. Formulating objectives; construction of evaluation instruments; survey of appropriate literature. Prereq: Consent of instructor.
560 Psychology of Music Teaching (3) Research on musical perception and cognition and its application to teaching of music. Definition and measurement of musical ability. Prereq: Course in general psychology and 1 yr. of music theory or consent of instructor.
570 Studies in Elementary and Middle School Music (3) Current trends and research in teaching of music in elementary and middle school. Prereq: Consent of instructor.
580 Seminar in Music Education (3) Class investigation and individual reporting of pertinent topics and issues in music education. Prereq: Consent of instructor. May be repeated. Maximum 6 hrs.
590 Special Topics in Music Education (1-3) Prereq: Consent of instructor. May be repeated. Maximum 6 hrs.
593 Special Problems in Music Education (3) Prereq: Consent of instructor. May be repeated. Maximum 6 hrs.

Music Education

The Master of Science requires Music Education 510 and 520; 9 hours of music education electives at the 500 level; 6 hours of Thesis 500; 6 hours of 500-level courses in music theory or history; 2 hours of applied music at either the 400 or 500 level; 2 hours of music ensemble at the 500 level; and 6 hours of music or music education electives at the 500 level.

A three credit research problem and three extra hours coursework in Music Education may be substituted for Thesis. If a larger thesis problem is desired, the thesis credit may be increased to 9 credit hours and 3 credit hours of Music Education electives may be dropped.

Diagnostic tests in theory, music history, music education, and applied music will be required. A final written and oral examination will be required.

Astronomy

See Physics and Astronomy

Audiology and Speech Pathology

(College of Liberal Arts)

MAJORS DEGREES
Audiology ....................................... M.A.
Speech and Hearing Science .................. Ph.D.
Speech Pathology ............................... M.A.

Patrick J. Carney, Head

Professors:
Adler, Sol, Ph.D. ................................ Ohio State
Asp, Carl W., Ph.D. .............................. Ohio State
Carney, Patrick J., Ph.D. ........................ Iowa
Luper, Harold L., Ph.D. ......................... Ohio State
Nabelek, Igor V., Sc.D. ......................... Prague
Peterson, H. A., Ph.D. .......................... Illinois
Silverstein, B., Ph.D. ............................ Purdue

Associate Professors:
Burchfield, Samuel B., Ph.D. ................ Michigan State
Ferrell, Charles J., M.A. ......................... Tennessee
Wallace, Gloria Jean L., Ph.D. ............... Northwestern

Assistant Professor:
Arthur, Deborah, M.A. ........................ Tennessee
Gordon, Pearl A., Ph.D. ....................... Tennessee
Krishnan, Ravi A., Ph.D. ....................... Texas

THE MASTER'S PROGRAM

A major is offered in Audiology or in Speech Pathology. A minor is offered in each of the two areas when approved by the department.

The intent of each major program is to provide the student with the scholarly and professional skills necessary for functioning as an independent professional clinician in any clinical environment.

Students majoring in either of the two areas are expected to complete the academic requirements for clinical certification from the American Speech-Language-Hearing Association, including the required number of clock hours of clinical practicum (minimum 200 hours as a graduate student, 375 total). An exception to this rule must be approved by the appropriate departmental committee. Enrollment in clinical practicum courses is required for all clinical practice experiences. If the undergraduate preparation does not include sufficient coursework in speech pathology, audiology, psychology, and related fields, the student may be required to make up such deficiencies.

Students may elect either the thesis or the non-thesis option. Students in both programs are required to take 511. The Master's program with the thesis will include a minimum of 30 semester hours of approved graduate credit, including 6 hours of 500 credit in the preparation of an acceptable thesis representing original independent work, and a final oral examination. At least two-thirds of these total courses must be at the 500 or 600 level, including no more than 6 hours of thesis and no more than 6 hours of practicum. Students in the non-thesis option program must present a total of 36 semester hours of approved graduate credit and pass a final written examination. A minimum of 24 hours must be at the 500 or 600 level, no more than 6 of which may be practicum. The decision as to choice of the thesis or non-thesis program is normally made following completion of 511 and a conference with the student's advisor.

THE DOCTORAL PROGRAM

The Ph.D. program in Speech and Hearing Science seeks to develop individuals for research or college teaching careers in the concentration areas of speech and language pathology, audiology, speech science, or hearing science. This degree program is
Audiology and Speech Pathology

research oriented, with primary emphasis upon developing the scientific and cognitive skills which allow individuals to identify and independently study important questions concerning the human act of oral and aural communication.

Students will be expected to demonstrate their knowledge in the areas of:
1. Basic speech, hearing, and language processes
2. Speech, hearing, and language disorders
3. Related disciplines providing insight into human communication
4. Technical skills in instrumentation and experimental design which enable the student to investigate problems pertaining to speech and hearing processes.

The program will normally consist of three or more calendar years of graduate study beyond the Master's degree with the first year being devoted primarily to formal coursework and the last year to full-time research culminating in the doctoral dissertation.

The total program is a minimum of 60 semester hours, including a minimum of:
1. 24 semester hours in dissertation 600.
2. 6 semester hours in a research tool.
3. 6 semester hours in a cognate area outside the department.
4. 24 semester hours in 600-level coursework within the department of which:
   a. a minimum of 6 semester hours in the topic of major interest
   b. a minimum of 6 semester hours in topic(s) of related interest
   c. 2 semester hours in 611; and
   d. 3 semester hours in supervised teaching experience.
5. A comprehensive examination to demonstrate scholarly knowledge of audiology, speech and language pathology, and speech and hearing science; and advanced knowledge of the specifics of the area of concentration.
6. A final oral examination.

ACADEMIC COMMON MARKET

An agreement among southern states for sharing graduate programs allows legal residents of some states to enroll in certain programs at UT Knoxville on an in-state tuition basis. The Ph.D. program in Speech and Hearing Science is available to residents of the states of Alabama, Arkansas, Kentucky, South Carolina, or West Virginia. Additional information may be obtained from the Residency Assistant in the Office of Graduate Admissions and Records.

GRADUATE COURSES

404 Appraisal of Speech and Language Disorders (3) Diagnostic procedures for children and adults with speech and language problems including observation and practice with diagnostic tests. Prereq: Communication Disorders, Speech Science, Clinical Practice in Speech-Language Pathology or consent of instructor.

431 Stuttering (3) Nature, appraisal and treatment. Prereq: 304 or consent of instructor.

433 Clinical Practice in Speech-Language Pathology I (1-4) Prereq: 320, 331 or consent of instructor. Enrollment for fewer than 2 hrs must have prior departmental approval. (Same as Special Education 433.)

434 Clinical Practice in Speech-Language Pathology II (1-4) Prereq: 433 and consent of instructor. Enrollment for fewer than 2 hrs must have prior departmental approval. (Same as Special Education 434.)

440 Voice Disorders (3) Etology, diagnosis, and treatment of organic and functional voice disorders. Prereq: 304, 306, or consent of instructor. (Same as Special Education 440.)

455 Problems in Speech Pathology (1-3) Prereq: Consent of instructor. May be repeated. Maximum 6 hrs. Enrollment for less than 2 hrs must have prior departmental approval.

461 Introduction to Language Pathology in Children (3) Nature, etiology and treatment of language retardation in children; observations of language therapy. Prereq: 332 or consent of instructor.

463 Practical Applications of Language Habilitation Techniques (3) Various methods and procedures in treating delayed/disordered preschoolers. Alternative/ augmentative systems. Prereq: 461 or consent of instructor.

465 Speech and Language of the Culturally Different Child (3) Speech and language differences of children of various minority groups; of different ethnic and class membership and from different geographic regions.

473 Audiology II (3) Basic principles of clinical audiology: pure tone, speech, masking and overview of special auditory tests. Prereq: 371. (Same as Special Education 473.)

494 Introduction to Aural Rehabilitation (3) Rehabilitation of acoustically impaired having communication difficulties, residual hearing and other sensory modalities. Prereq: 473.

500 Thesis (1-15) S/NC only. E

502 Registration for Use of Facilities (3-15) Required for the student to use facilities during any semester when student uses University facilities and/or faculty time before degree is completed. May not be used toward degree requirements. May be repeated. S/NC only. E

506 Neural Bases of Speech and Language (3) Structure and function of central and peripheral nervous systems, role in speech and language. Prereq: 306.


511 Introduction to Research in Speech and Hearing (3) Analysis of research techniques, fundamentals of statistics, application of statistics, and completion of a proposal and hypothetical pilot research project.

512 Clinical Practice in Audiology (1-4) Prereq: 473 and 494. May be repeated. Maximum 9 hrs.

513 Clinical Practice in Audiology: Off-Campus Sites (1-4) Prereq: Consent of instructor.

514 Practicum in Verbo-Tonal Habilitation (1-4) Prereq: 494, 506, or consent of instructor. May be repeated. Maximum 6 hrs.

515 Practicum in Aural Rehabilitation (1-4) Prereq: 473 and 494. May be repeated. Maximum 6 hrs.

517 Instrumentation in Audiology and Speech Pathology (3) Principles of instrumentation in audiology and speech pathology; assignments for familiarization of students with instruments for measuring speech and hearing processes.

520 Aphasia (3) Historical review of aphasia literature, theories of brain functioning, aphasic classification and terminology, tests and rationale for testing, etiology, therapy considerations and prognosis for recovery. Prereq: 506 or equivalent or consent of instructor.

522 Seminar: Articulation and Voice Disorders (3) Current research in diagnosis and management of articulation and voice disorders. Prereq: Undergraduate coursework in articulation and voice disorders or consent of instructor.

531 Seminar on Stuttering (3) Current significant research in stuttering. Prereq: 431 or consent of instructor.

532-33-34 Advanced Clinical Practice in Speech-Language Pathology (1-4, 1-4, 1-4) Prereq: 433 or equivalent and consent of instructor. 532 may be repeated. Maximum 6 hrs. Enrollment for less than 2 hrs must have prior departmental approval.

536-37 Advanced Clinical Practice in Speech-Language Pathology: Off-Campus Sites (1-4, 1-4, 1-4) Prereq: 100 hrs clinical experience, consent of instructor. May be repeated. Maximum 6 hrs each. Enrollment for less than 2 semester hrs must have prior departmental approval.

538 Advanced Clinical Practice in Speech-Language Pathology: Public School (1-4) May be repeated. Maximum 6 hrs. Enrollment for less than 2 hrs must have prior departmental approval.

539 Motor Speech Disorders (3) Neuromotor organization and speech pathology of motor speech disorders and associated neuromuscular symptomatology; diagnosis and management of motor speech disorders. Prereq: 506.


545 Sound Measurement Techniques and Hearing Conservation (3) Techniques of measurement and analysis of sound; hearing conservation in schools and industry. Prereq: Consent of instructor.

546 Advanced Audiology (3) Theory and practice of advanced pure tone and speech audiometry; instrumentation and interpretation of audiometric findings with differential diagnosis. Prereq: 473.

547 Special Problems in Audiology (1-3) Prereq: 473 or equivalent and consent of instructor. May be repeated. Maximum 6 hrs.

548 Special Study in Audiology (1-3) Special reading, consultation, and research activities in field of audiology. May be repeated. Maximum 6 hrs.

550 Seminar in Audiology (1-3) Significant research in various areas of audiology. Prereq: Consent of instructor. May be repeated. Maximum 10 hrs.

551 Advanced Auditory Assessment (3) Theoretical and applied considerations of procedures used to identify lesions in auditory mechanism: behavioral assessment, acoustic immittance and electroophysiological techniques. Prereq: 473, 507 and 546.

552 Seminar in Speech Pathology (2-3) Current significant research in speech pathology. Topics vary. Prereq: 9 hrs speech pathology. May be repeated with consent of department. Maximum 9 hrs.


555 Special Problems in Speech-Language Pathology (1-3) Prereq: Consent of instructor. May be repeated. Maximum 6 hrs.

556 Independent Study in Speech-Language Pathology (1-3) Prereq: Consent of instructor. May be repeated. Maximum 6 hrs.

557 Management and Supervision for Speech-Lan- guage-Hearing Professionals (3) Management sys- tems, accountability, performance appraisal and clinical supervision for audiologists and speech language pathologists interested in private practice, supervisory or administrative positions.

561 Tutorial in Child Language Pathology (2) Interac- tions with various staff members of Pediatric Language Programs; selected topics. Prereq: 461 or consent of instructor. May be repeated. Maximum 6 hrs.

574 Pediatric Audiology (3) Theoretical and practical considerations in evaluation and treatment of hearing loss in infants and children. Audiological intervention in case management of hearing impaired child: amplification, educational alternatives, and state and federal guidelines.


591 Foreign Study (1-15) See page 31.

592 Off-Campus Study (1-15) See page 31.

593 Independent Study (1-15) See page 31.